



FIBER OPTIC CABLING

POWER SUPPLY

COPPER CABLING

MULTIMEDIA

NETWORK AND SERVER CABINETS

ACTIVE NETWORK COMPONENTS



WE CARE FOR **CONNECTION SINCE 1988**



THE EFB-ELEKTRONIK GMBH

is a leading manufacturer and system provider of networking technology and industrial system solutions. Our expertise ranges from structured cabling, using certified high-end products for data centres to custom developments for industrial clients.

Our team services customers worldwide from our headquarters in Bielefeld, Germany. Our customer base includes renowned household names from the IT and security industry, as well as medium sized companies and large corporations.

Our membership in the international TKH Group based in the Netherlands, with more than 6,500 employees and production facilities around the globe, gives us additional leverage for the benefit of our customers.

The EFB group of companies has 330 employees across nine locations in Europe, five of them in Germany, three subsidiary companies located in Istanbul, Copenhagen and Vienna and one production site in Slovakia.

The current turnover of the TKH Group amounts to 1.3 billion Euros (2020). With a sales volume of 66 million Euros (2020), the EFB-Elektronik GmbH ranks among the leading companies of the group.

LEARN MORE ABOUT OUR COMPANY: www.efb-elektronik.de/en/aboutus

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DISCOVER

THE EFB PRODUCT PORTFOLIO



MULTIMEDIA P. 270

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THAT'S WHY WE ARE THE RIGHT PARTNER

NUMEROUS GOOD REASONS FOR COOPERATION WITH EFB-ELEKTRONIK

WE STRIVE TO PROVIDE PRODUCTS AND SERVICES THAT HELP YOU SUCCEED:

with greater productivity, reduced downtime costs or lower maintenance costs. For over 30 years, we have been growing along with our customers!

PERSONAL CONTACT PARTNERS & PROFESSIONAL CONSULTATION

Through personal contact to our customers, partners and suppliers, we achieve maximum customer orientation. As a result, you benefit from professional consultation with contact partners appointed to accompany you throughout the course of your projects.

STRONG PARTNER FOR CUSTOM-MADE PRODUCTS

In addition to our standard assortment, we are always open to provide individual custom-made products made at our own manufacturing sites for fiber optic and copper cabling. We can therefore swiftly implement small-scale and large-scale productions alike at a high quality level.

CHOOSE FROM A WIDE RANGE: FIND THE PRODUCT SOLUTION THAT IS RIGHT FOR YOU:

Structured cabling for buildings is our passion. Only from EFB: a product portfolio that is both wide and deep, with over 10,000 products available. This is how we are able to provide you with a 100% tailored selection for a wide variety of applications.

VERIFIED QUALITY: RELIABILITY AND SATISFACTION FOR CUSTOMERS

This makes EFB-Elektronik unique: Our two-stage quality control for imported goods. After a pre-inspection on site at the supplier's premises, the products will be inspected once more by our internal quality assurance teams.



FROM INDIVIDUAL PRODUCTS

TO COMPLETE SOLUTIONS



EFB-ELEKTRONIK AS A SYSTEM PROVIDER

Network installations come with challenges – regardless of the type of building. We can point you to the right products for your specific demands: From copper and fiber optic components to rack systems and power supplies and all the way up to multimedia cable configurations.

EFB-ELEKTRONIK AS A MANUFACTURER

As a manufacturer, we guarantee top product quality. In addition to custom-made fiber optic and copper cables, we also produce and assemble splice boxes, rack systems and complete industrial cable groups. We stand for optimal quality control, fast response times and short delivery channels to implement your requirements as quickly as possible.





EFB-ELEKTRONIK AS A TECHNICAL ADVISER

Our customers have the benefit of our extensive technical expertise in a variety of areas. Whether it is about data networks, automation and medical technology or renewable energy – a team of experienced and skilled specialised engineers accompany our customers with their projects, every step of the way.

EFB-ELEKTRONIK AS A SERVICE PROVIDER

We strive to always offer our customers the best possible service. This is why we consistently focus on our customers' needs and offer numerous advantages.





EFB-ELEKTRONIK AS A LOGISTICS PARTNER

We are constantly evaluating and optimising our logistical supply processes, so that incoming orders can be processed immediately and available items can be shipped out the same day.



OUR MISSION IS
TO DO EVERYTHING WE CAN
IN ORDER HELP OUR
CUSTOMERS SUCCEED.



CUSTOMISED SPECIAL SOLUTIONS

Explore the wide range of services that allows us to always find the right solution for your project-based product requirements. With our own staff and technical equipment, we make our expertise available to you at our various locations. Take advantage of our fast and efficient processes.



Custom-tailored solutions: A one-stop shop offering perfectly tailored solutions



Personal & qualified technical advisers, over the phone & in-person



Fast implementation of special requirements



Comprehensive quality assurance



Many years of experience and expertise in small-scale and large-scale production



Reduce your workload: Our products, optimally prepared for you to finish



DOING OUR PART FOR THE ENVIRONMENT



This free product catalogue was printed using a 100% green manufacturing concept, based on the principles of sustainability and the recycling economy. The Blue Angel guarantees that these products and services comply with high environmental, health and quality standards.

SERVICE THAT GOES BEYOND

CONFIGURATORS

With just a few clicks, you can design your individual product and directly request a binding quotation using the EFB configurators.

- Saves time for follow-up orders
- Your configuration, your prices
- Sensible solutions
- Available twenty-four seven
- Configurator for network & server racks
- Configurator for ready-made breakout & loose tube cables

PRODUCT-RELATED SERVICES

At our various manufacturing sites, we are able to implement all types of project-based product requirements. This way, we can always find the right solution and create a product tailored to your needs.

- Production of single strands, cable harnesses & installation of assemblies
- Assembly of fiber optic cables, subracks, FTTX components and customised configurations
- Splice boxes equipped according to customer requirements
- Special measurements for trunk, patch and fiber optic cables
- Cables cut to length and marked
- Cabinet retrofit & installation

PACKAGING-RELATED SERVICES

Packed in cardboard boxes or however you request, with or without markings – always individually and just the way your need it done. Our trained, personal technical advisers help you assemble the perfect service package for you.

- Repackaging of goods according to your specifications
- (Re-)labelling
- Wrap labels & tags directly on the cable
- ESD packaging
- Environmentally friendly packaging alternatives available



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Webinars and seminars

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OUR MANUFACTURING PLANTS





Individually custom-made items possible



Fast response times and short delivery routes



Fastest possible implementation of individual requirements



High-quality processing by specialised personnel



Optimal quality control

OUR MANUFACTURING PLANTS

In Germany, EFB-Elektronik operates two manufacturing plants – in Bielefeld and in Sonneberg. We also have our own manufacturing plant in Slovakia.

The balanced combination of state-of-the-art technology and precision craftsmanship ensure that the products meet the high quality standards of the customers. We specialise in speed and flexibility.

EVERY PRODUCT HELD TO THE HIGHEST STANDARDS

Easy to operate, strong in application and of great benefit to users. Quality is one of the outstanding performance features of our products. Quality at the highest level is ensured through compliance with all standards and with qualified production processes.

- Management systems: ISO9001
- Product specifications, e.g. ETL, GHMT, Delta
- Licenses: e.g. UL

BRAND-NAME PRODUCTS WITH ADDED VALUE



OUR INFRALAN® PREMIUM BRAND - CABLING SYSTEM

Reliability of your high-performance system provided now and in future. Our INFRALAN® brand stands for high-performance system solutions all around structured cabling of buildings. Discover selected high-performance components for structured fiber optic and copper cabling as well as cabinet systems – all provided by a single source.

WHY IS INFRALAN® IN?









RELIABILITY



HIGH PERFORMANCE



FUTURE-PROOF SOLUTIONS

www.infralan.de/en | info@infralan.de

Our comprehensive product portfolio offers you the best selection of products, so you can find the solutions that meet all your requirements: We carry many major brands, to help you decide which products are right for you. Discover the brands for yourself, or ask your contact partner.



TECHLY® - THE MODERN IT BRAND

TECHLY® stands for innovative products designed to connect people, drive businesses and improve our way of life. What makes our products unique is that they are easy to use and create a smart environment that is also greener.

www.efb-elektronik.de/en/techly



KAPTUR® SCAN SOLUTIONS FOR EASY DATA CAPTURE

As the exclusive distributor in the DACH countries, EFB-Elektronik offers KAPTUR®-brand premium scanning equipment for 1D and 2D barcodes, for identification and data capture.

www.efb-elektronik.de/en/kaptur







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MTP®-F/LC 8-fiber patch cable

Application: Suitable for transmission links up to 100 Gigabit

Construction: 1 multi-connector MTP® on one side,

4 LC-Duplex connector on the other side

LowLoss version: attenuation per Fanout max. 0,35dB

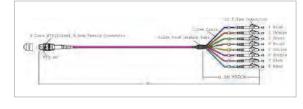
Matrix: 8 fibers

Assignment MTP 1-4 + 9-12 Furcation length: 50cm

Cable diameter multi-connector: 3mm Cable diameter single-connector: 2mm

Colour: OM4 and OS2 acc. to colour code DIN VDE 0888

Stock length: 1,0 - 2,0 - 3,0 - 5,0 - 10,0 - 15,0 - 20,0 m



ArtNo.	Description	Connector	Fiber type	Coding
MTPF08LCOS2-xx	MTP®-F/LC 8-fiber patch cable OS2, LSZH yellow	MTP-F/ LC-Duplex	G657A1	1:1
MTPF08LCOM4-xx	MTP®-F/LC 8-fiber patch cable OM4, LSZH erica-violet	MTP-F/ LC-Duplex	OM4 50/125	1:1



MTP®-F/LC 12-fiber patch cable

Application: Suitable for transmission links up to 100 Gigabit

Construction: 1 multi-connector MTP® on one side,

6 LC-Duplex connector on the other side

LowLoss version: attenuation per Fanout max. 0,35dB

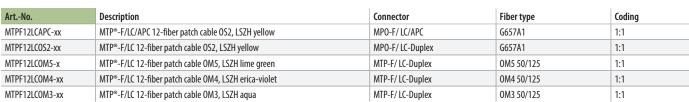
Matrix: 12 fibers

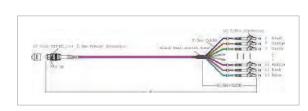
Furcation length: 50cm

Cable diameter multi-connector: 3mm Cable diameter single-connector: 2mm

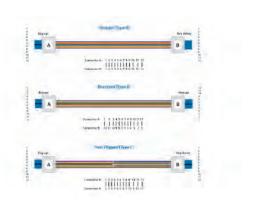
Colour: OM5, OM4, OM3 and OS2 acc. to colour code DIN VDE 0888

Stock length: 1,0 - 2,0 - 3,0 - 5,0 - 7,5 - 10,0 - 15,0 m









MTP®-F/MTP®-F 12-fiber patch cable, Code B

Application: Server to Server- / Switch to Switch connection,

Suitable for transmission links up to ${\bf 100~Gigabit}$

Connector manufacturer: US Conec

Matrix: 12 Fibers

Singlemode variant always as APC version

Colour: OM5 lime green, OM4 erica-violet, OM3 aqua and OS2 yellow

Available lengths: 1m up to 100m

Note: In each MTP $^{\circ}$ transmission link, a type B (crossed) patch cable is required

Stock length: 0,5 - 1,0 - 2,0 - 3,0 - 5,0 - 7,5 - 10,0 - 15,0 m



ArtNo.	Description	Connector	Fiber type	Coding
MTPF12MTPF0S2-xx	MTP®-F/MTP®-F 12-fiber matrix patch cable OS2, LSZH yellow, Code B	MTP-F/ MTP-F	G657A1 9/125	Type B crossed
MTPF12MTPF0M5-xx	MTP®-F/MTP®-F 12-fiber matrix patch cable OM5, LSZH lime green, Code B	MTP-F/ MTP-F	OM5 50/125	Type B crossed
MTPF12MTPF0M4-xx	MTP®-F/MTP®-F 12-fiber matrix patch cable OM4, LSZH erica-violet, Code B	MTP-F/ MTP-F	OM4 50/125	Type B crossed
MTPF12MTPF0M3-xx	MTP®-F/MTP®-F 12-fiber matrix patch cable OM3, LSZH aqua, Code B	MTP-F/ MTP-F	OM3 50/125	Type B crossed



MTP®-F/MTP®-F 12-fiber matrix Patch cable, Code A

Application: Server to Server- / Switch to Switch connection, Suitable for transmission links up to **100 Gigabit**

Connector manufacturer: **US Conec**

Matrix: 12 Fibers

Singlemode variant always as APC version

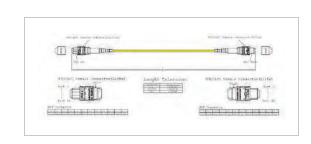
Colour: OM5 lime green, OM4 erica-violet, OM3 aqua and OS2 yellow

Available lengths: 1m up to 100m

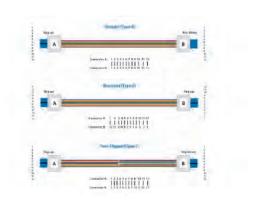
Note: In each MTP® transmission link, a type B (crossed) patch cable is required

Stock length: 0,5 - 1,0 - 2,0 - 3,0 - 5,0 - 7,5 - 10,0 - 15,0 m

ArtNo.	Description	Connector	Fiber type	Coding
MTPF12MTPF0S2-xx-A	MTP®-F/MTP®-F 12-fiber matrix Patch cable OS2, Code A	MTP-F/ MTP-F	G657A1 9/125	Type A straight
MTPF12MTPF0M4-xx-A	MTP®-F/MTP®-F 12-fiber matrix patch cable OM4, LSZH erica-violet, Code A	MTP-F/ MTP-F	0M4 50/125	Type A straight
MTPF12MTPF0M3-xx-A	MTP®-F/MTP®-F 12-fiber matrix Patch cable OM3, LSZH aqua Code A	MTP-F/ MTP-F	OM3 50/125	Type A straight







MTP®-F/MTP®-F 24-fiber matrix Patch cable, Code A

Application: Server to Server- / Switch to Switch connection, Suitable for transmission links up to **100 Gigabit** Connector manufacturer: **US Conec**

Matrix: 12 Fibers

Singlemode variant always as APC version

Colour: OM5 lime green, OM4 erica-violet, OM3 aqua and OS2 yellow

Available lengths: 1m up to 100m

Note: In each MTP $^{\circ}$ transmission link, a type B (crossed) patch cable is required

Stock length: 5,0 - 7,5 - 10,0 - 15,0 - 20,0 - 25,0 - 30,0 m

ArtNo.	Description	Connector	Fiber type	Coding
MTPF24MTPF0S2-xx-A	MTP®-F/MTP®-F 24-fiber matrix patch cable OS2, LSZH yellow, Code A	MTP-F/ MTP-F	G657A1 9/125	Type A straight
MTPF24MTPF0M4-xx-A	MTP®-F/MTP®-F 24-fiber matrix patch cable OM4, LSZH erica-violet, Code A	MTP-F/ MTP-F	0M4 50/125	Type A straight



MTP®-F/MTP®-F 36-fiber matrix Patch cable, Code A

Application: Server to Server- / Switch to Switch connection, Suitable for transmission links up to **100 Gigabit** Connector manufacturer: **US Conec**

Matrix: 12 Fibers

Singlemode variant always as APC version

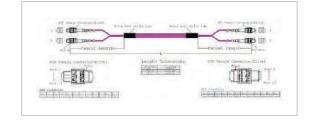
Colour: OM5 lime green, OM4 erica-violet, OM3 aqua and OS2 yellow

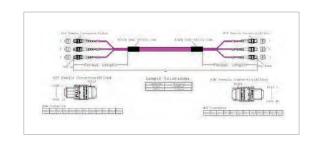
Available lengths: 1m up to 100m

Note: In each MTP $^{\circ}$ transmission link, a type B (crossed) patch cable is required

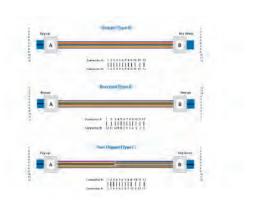
Stock length: 5,0 - 7,5 - 10,0 - 15,0 - 20,0 - 25,0 - 30,0 m

ArtNo.	Description	Connector	Fiber type	Coding
MTPF36MTPF0S2-xx-A	MTP®-F/MTP®-F 36-fiber matrix patch cable OS2, LSZH yellow, Code A	MTP-F/ MTP-F	G657A1 9/125	Type A straight
MTPF36MTPF0M4-xx-A	MTP®-F/MTP®-F 36-fiber matrix patch cable OM4, LSZH erica-violet, Code A	MTP-F/ MTP-F	OM4 50/125	Type A straight









MTP®-F/MTP®-F 48-fiber matrix Patch cable, Code A

Application: Server to Server- / Switch to Switch connection, Suitable for transmission links up to 100 Gigabit

Connector manufacturer: US Conec

Matrix: 12 Fibers

MTPF48MTPF0M4-xx-A

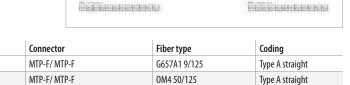
Singlemode variant always as APC version

Colour: OM5 lime green, OM4 erica-violet, OM3 aqua and OS2 yellow

Available lengths: 1m up to 100m

Note: In each MTP® transmission link, a type B (crossed) patch cable is







MTP®-F/MTP®-F 48-fiber matrix patch cable OM4, LSZH erica-violet, Code A

MTP®-F/MTP®-F 72-fiber matrix Patch cable, Code A

Application: Server to Server- / Switch to Switch connection, Suitable for transmission links up to **100 Gigabit**

Connector manufacturer: **US Conec**

Matrix: 12 Fibers

Singlemode variant always as APC version

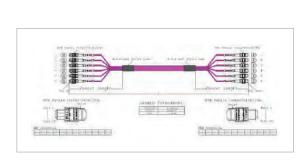
Colour: OM5 lime green, OM4 erica-violet, OM3 aqua and OS2 yellow

Available lengths: 1m up to 100m

Note: In each MTP® transmission link, a type B (crossed) patch cable is required

Stock length: 5,0 - 7,5 - 10,0 - 15,0 - 20,0 - 25,0 - 30,0 m

ArtNo.	Description	Connector	Fiber type	Coding
MTPF72MTPF0M4-xx-A	MTP®-F/MTP®-F 72-fiber matrix patch cable OM4, LSZH erica-violet, Code A	MTP-F/ MTP-F	0M4 50/125	Type A straight





Fanout Cable MTP®-Male/LC 8-fiber

Application: Suitable for transmission links up to **100 Gigabit** Construction: 1 multi-connector MTP $^{\circ}$ Male on one side, 8 Single connector on the other side (e.g. LC) Assignment MTP 1-4 + 9-12

LowLoss

version: attenuation per Fanout max. 0,35dB

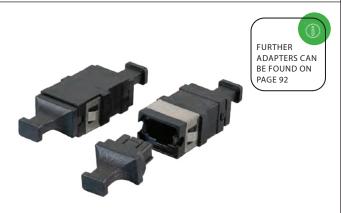
Matrix: 8 fibers

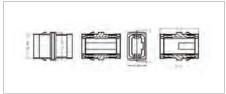
Cable diameter single-connector: 900µm

Colour: OM4, OM3 and OS2 acc. to colour code DIN VDE 0888



ArtNo.	Description	Connector	Fiber type
MTPM08LC0S2-xx	MTP®-M/LC 8-fiber Fanout Cable OS2, LSZH yellow	MTP-M/ LC	OS2 9/125
MTPM08LC0M4-xx	MTP®-M/LC 8-fiber Fanout Cable OM4, LSZH erica-violet	MTP-M/ LC	OM4 50/125
MTPM08LCOM3-xx	MTP®-M/LC 8-fiber Fanout Cable OM3, LSZH aqua	MTP-M/LC	OM3 50/125





MTP® / MPO Adapter, black, flangeless SC Simplex

 $\ensuremath{\mathsf{MTP}}$ / $\ensuremath{\mathsf{MPO}}$ adapter, flangeless in SC Simplex dimension

ArtNo.	Description	Suitable for type of fiber	Colour	Туре
53458.1	MTP/MPO adapter flangeless,	Singlemode and Multimode	black	PC/ APC
	codable up/up or up/down	50/125		



Fanout Cable MTP®-Male/LC 12-fiber

Application: Suitable for transmission links up to **100 Gigabit** Construction: 1 multi-connector MTP® Male on one side,

12 Single connector on the other side (e.g. LC)

LowLoss version: attenuation per Fanout max. 0,35dB

Matrix: 12 fibers

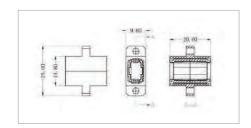
Cable diameter single-connector: 900µm

Colour: OM4, OM3 and OS2 acc. to colour code DIN VDE 0888



ArtNo.	Description	Connector	Fiber type
MTPM12LCAPC-xx	MTP®-M/LC/APC 12-fiber Fanout Cable OS2, LSZH yellow	MTP-M/ LC/APC	0S2 9/125
MTPM12LCOS2-xx	MTP®-M/LC 12-fiber Fanout Cable OS2, LSZH yellow	MTP-M/LC	OS2 9/125
MTPM12LCOM4-xx	MTP®-M/LC 12-fiber Fanout Cable OM4, LSZH erica-violet	MTP-M/ LC	OM4 50/125
MTPM12LCOM3-xx	MTP®-M/LC 12-fiber Fanout Cable OM3, LSZH aqua	MTP-M/ LC	OM3 50/125





MTP® / MPO Adapter, black

MTP / MPO adapter

ArtNo.	Description	Suitable for type of fiber	Colour	Туре
53458.1V2	MTP/MPO adapter with flange, codable up/up or up/down	Singlemode and Multimode 50/125	black	PC/ APC



FTTH 19" 1U Subrack for 8x Module FTTH-MODUL-X incl. cable management

19" subrack for FTTH-MODUL-XX (delivery without modules) Up to 96 LC ports to 1 unit with front-sided cable tray delivery without modules

Material:	Steel sheet
Surface finishing:	With powder coating
Type of enclosure:	open
With ventilation slots:	Yes
Degree of Protection (IP):	IP20
Width:	483 mm
Height:	44,5 mm
Denth:	190 mm

ArtNo.	Max. Moduls Max. Ports		Colour	
FTTH-BGT-1HE	8	96 LC / 48 SC	grey	



FTTH 19" 3HE Subrack for 17x FTTH-MODUL-X incl. cable management

19" subrack for FTTH-MODUL-XX (delivery without modules) Up to 204 LC ports to 3 units with front-sided cable tray delivery without modules

Material:	Steel sheet
Surface finishing:	With powder coating
Type of enclosure:	open
With ventilation slots:	Yes
Degree of Protection (IP):	IP20
Width:	483 mm
Height:	135 mm
Depth:	190 mm

ArtNo.	Max. Moduls	Max. Ports	Colour
FTTH-BGT-3HE	17	204 LC / 102 SC	grey



FTTH Module for FTTH-BGT

Suitable for 1U and 3U subrack FTTH-BGT-xHE

Pre-equipped with adapter in single mode, multimode OM4 or multimode OM3 with ceramic ferrule

Inclined outlet left/right for the 1U version, top/bottom outlet for the 3U version $\,$

Cable entry via MTP®/MPO adapter

Splice cassette (Shrink -and Crimpprotection) holder included in cassette for MTP $^{\circ}/$ MPO free installation

Delivery without Pigtails and MTP®/MPO adapter

Number of height units	(U):0,5
With Pigtail:	No

ArtNo.	Moduls	Quantity adapters	Adapters	APC	Adapter colour
FTTH-MODUL-LCAPC	Singlemode	6	LC duplex	Yes	green
FTTH-MODUL-LCOS2	Singlemode	6	LC duplex	No	blue
FTTH-MODUL-LCOM4	Multimode 0M4	6	LC duplex	No	erica-violet
FTTH-MODUL-LCOM3	Multimode 0M3	6	LC duplex	No	aqua
FTTH-MODUL-SCOS2	Singlemode	6	SC	No	blue
FTTH-MODUL-SCOM4	Multimode 0M4	6	SC	No	erica-violet
FTTH-MODUL-SCOM3	Multimode 0M3	6	SC	No	aqua





QSFP+ 40GBASE-SR4, 4x10.5GBPS MPO

The QSFP+ transceiver are designed for 40 Gigabit Ethernet connections over 850nm multimode fibers. They are according to QSFP+ MSA, IEEE 802:3ba 40GBASE-SR4 and 4 x 10GBASE-SR. Additionally the transceiver features digital diagnostic functions and has optical power monitoring.

Up to max. of 40Gb/s, 10,5Gb/s per channel 4-channel full duplex transceiver module maximum range: 150 m (OM4), 100 m (OM3), 30 m (Om2) Hot-pluggable QSFP+ design Mating face: 1 x 12 MPO female Max. power consumption 1.2 W Reliable VCSEL technology ROHS compliant

ArtNo.	Con- nector	Medium	Wave- length	Link distance	Temperature	Speed	
FTL410QE3C	MP0	Multimode	850 nm	100/150 m	-10 – 70 °	40 Gbit/s	



FINISAR

QSFP28 100Gigabit Ethernet 100Gbit/s

Transceiver modules (uncoded) for Ethernet network applications from 100Mbit/s to 100Gbit/s.

Active components of the category SWITCH or ROUTER can be equipped with corresponding transceiver modules, provided that the transmission speeds are also supported.

Application areas: Ethernet - Infiniband - Fiberchannel - Storage Area Networks - Local Area Networks - Datacenter

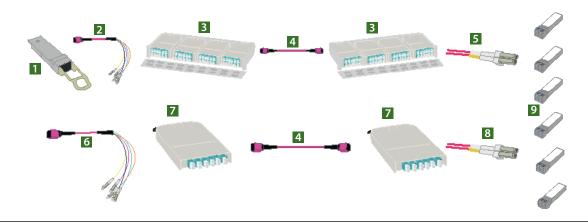
Transceiver QSFP28 100Gigabit MM 100Gbit/s 100GBaseSR4 25Gx4 MPO/MTP12 0 .. +70°C Multimode OM4 100m

ArtNo.	Con- nector	Medium	Wave- length	Link distance	Tempera- ture	Speed
FTLC9551REPM	MP0	Multimode	850 nm	100 m	0 – 70 °C	100 Gbit/s

MTP® APPLICATIONS THE STRUCTURE OF AN MTP® CHANNEL

- EL
- To build up a transmission link from a MTP® QSFP switch to a floor distribution with LC SFP modules, a migration from e.g. 100G MTP® to 4 x 25G on LC basis is realized.
- For cabling, an MTP® Harness cable in 8-fiber is used to keep the cabling effort as low as possible.
- In addition, there is a collection point for MTP® to which a 12-fiber MTP® cable is connected.
- Another collection point is located at the other end to be able to convert from MTP® to LC again.

COMPONENT SELECTION:





Outdoor Boxes (Gf-APL)	P. 23
Indoor Boxes (Gf-TA)	P. 24
Communication Outlets	P. 25 - 26
Subracks	P. 27
Pre-Assembled components	P. 28
Installation cable	P. 29
Pigtails	P. 31
Splitter and field installable connector	P. 32
CPE	P. 33

// XTT4

// YOU MAY ALSO BE INTERESTED IN:

Simplex Jumper Singlemode	P. 84
IP55 Network Cabinets	P. 217



FTTH-BOX-OUT-1 closed



FTTH-BOX-OUT-3 closed



FTTH-BOX-OUT-4 closed

IP65 Connection Box 2 - 16 ports

Foreign body and contact protection: Protection against ingrees of dust Suitable for adapter:.....SC Simplex/LC Duplex/E2000® Scope of application: Outdoor Mounting:......Wall mounting
Possibility of mast mounting:......No Material: Plastic Colour: White







FTTH-BOX-OUT-2 open



FTTH-BOX-OUT-3 open

FTTH-BOX-OUT-4 open

ArtNo.	Cable entry without cable gland	Cable entry with cable gland	Number of Fibers	Dimensions	Temperature Range	Access Control
FTTH-BOX-OUT-1	16x 3-5mm	2x PG13,5	16	295 x 220 x 85 mm	-25 − 70 °C	Lock
FTTH-BOX-OUT-2	8x max. 3mm / 1x max. 9mm	2x PG13,5	8	213 x 163 x 47 mm	-25 − 70 °C	Special screw/ Seal
FTTH-BOX-OUT-3	1x max. 10mm / 4x max. 4mm		4	172 x 136 x 40 mm	-25 − 70 °C	Special screw/ Seal
FTTH-BOX-OUT-4	1x max. 10mm / 2x max. 4mm		2	165 x 100 x 30 mm	-25 − 70 °C	Special screw/ Seal







IP65 Connection Box for 48 - 144 fiber

Foreign body and contact protection: Protection against dust deposits Suitable for adapter:.....SC Simplex/LC Duplex/E2000® Scope of application: Outdoor Mounting:.....Wall mounting Possibility of mast mounting: True Material: Plastic Colour:.....Grey





	_					
ArtNo.	Cable entry without cable gland	Cable entry with cable gland	Number of Fibers	Dimensions	Temperature Range	Access Control
FTTH-BOX-OUT-7	16 x 2-3mm; 2 x 15mm; 2 x 18mm		144	232 x 358.5 x 130.5 mm	-25 − 70 °C	Special screw/ Seal
FTTH-BOX-OUT-6	16 x 2-3mm; 2 x 15mm; 2 x 18mm		96	232 x 358.5 x 130.5 mm	-25 − 70 °C	Special screw/ Seal
FTTH-BOX-OUT-5	24 x 2-3mm	2 x PG19	48	232 x 359 x 130.5 mm	-25 − 70 °C	Special screw/ Seal

Art.-No. FTTH-BOX-IN-6

FTTH-BOX-IN-7









FTTH Box for 4 adapters SC-S or LC-D 80x80 with cable guide

Foreign body and contact protection: Protection against medium-sized foreign bodies

Water protection:.....Without protection Type of Splice protection:.....Crimp or Thermo Suitable for adapter:.....SC Simplex/LC Duplex/E2000® Scope of application: Inside Mounting:.....Wall mounting;DIN Rail Possibility of mast mounting:False

Cable entry without cable gland

Material: plastic Colour:.....

5 x 5 mm

5 x 5 mm





Dimensions

80 x 80 x 28 mm

80 x 80 x 28 mm

Number of Fibers

Indoor Connection Box

Foreign body and contact protection: Protection against medium-sized foreign

Water protection:.....Without protection Type of Splice protection:.....Thermo

Suitable for adapter:.....SC Simplex/LC Duplex/E2000®

Scope of application:Indoor Mounting:.....Wall mounting

Possibility of mast mounting:No Material:plastic Colour: white

SUITABLE **ADAPTERS** FROM P. 92





FTTH-BOX-IN-2 open





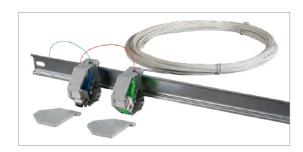
FTTH-BOX-IN-3 open

FTTH-BOX-IN-4 open

ArtNo.	Cable entry without cable gland	Number of Fibers	Dimensions	Temperature Range	Access Control
FTTH-BOX-IN-1		4	150 x 110 x 34 mm	0 – 50 °C	Without
FTTH-BOX-IN-2		2	84 x 130 x 24 mm	0 – 50 °C	Without
FTTH-BOX-IN-3		2	115 x 86 x 23 mm	0 – 50 °C	Without
FTTH-BOX-IN-4		2	148 x 90 x 16 mm	0 – 50 °C	Without
FTTH-BOX-IN-5		4	101 x 81 x 29 mm	0 – 50 °C	Without
53700.2	2	4	100 x 80 x 22 mm	-20 – 60 °C	Without







DIN RAIL adapter assembeled

Type of fastening:	DIN-Rail 35 mm
Type of DIN-rail adapter: :	Slanted
Material:	Plastic
Colour:	light grey
RAL colour:	RAL7035
Dimensions (WxHxD):	22 x 61 x 54 mm



ArtNo.	Number of ports	Assembly	Colour of adapter
FTTH-DINRAIL-LC	2	1x LC-Duplex	blue
FTTH-DINRAIL-LCA	2	1x LC-Duplex	green
FTTH-DINRAIL-SC	1	1x SC-Simplex	blue
FTTH-DINRAIL-SCA	1	1x SC-Simplex	green



House Connection Box (APL) IP54 for FTTX - Applications - Model S

Foreign body and contact protection:	Protection against ingrees of dust
Water protection:	5 5
Type of Splice protection:	crimp & shrink
Scope of application:	Outdoor
Mounting:	Wall mounting
Possibility of mast mounting:	False
Material:	plastic
Colour:	white

ArtNo.	Cable entry without cable gland	Cable entry with cable gland	Number of Fibers	Dimensions	Temperature Range	Access Control
53706.1		3	12	210 x 175 x 45 mm	-25 − 70 °C	lock
53706.2		3	12	210 x 175 x 45 mm	-25 − 70 °C	without



Multi System Fiber Optic - Outlet

Clip and screw locking of the adapter plates Delivery Incl. 9 **unassembled** adapter plates For SC-simplex, SC-duplex, E2000®-simplex, MTRJ, AMP/MTRJ, ST, FC, DIN, LC-duplex and a blanking plate

Outlet direction:.....straight
Dust protection cap:......without
Material bearing ring:Zinc alloy
Material central plate:ABS plastic
Material adapter plates:ABS plastic
Max. Assembly (Adapter): ...2
With bus/coupling:False
Surface mounting:True
Flush mounted (plaster):.....True
Duct installation:......True

ArtNo.	Colour	Dimensions
ET-25170	white	80 x 80 mm





Fiber Optic Frame Set

Included:

- 1 x metal frame
- 1 x plastic cover
- 1 x plastic central plate
- 4 x M2-screws

Outlet direction:	angled
Dust protection cap:	without
Material bearing ring:	Zinc alloy
Material central plate:	ABS plastic
Max. Assembly (Adapter):	2
With bus/coupling:	False
Surface mounting:	yes
Flush mounted (plaster):	yes
Duct installation:	yes

ArtNo.	Colour	Suitable for adapter	Central plate according to	Dimensions
ET-25085F0	white	SC Simplex/LC Duplex/E2000®	DIN 49075	80 x 80 mm



FTTH In Wall outlet with fiber overlength

Fiber Optical flush-mounted data outlet to accommodate 2 SC-Simplex adapter or 2 LC-Duplex adapter. The data outlet is equipped with couplings in the classes OM3, OM4 or OS2 including shutter. The highlight of this flush-mounted data outlet is that it not only has an integrated receptacle for excess fiber lengths, but also has a receptacle for splice protection (4x crimp or 4x shrink). Depending on the application, the holder can also be dismantled so that it does not get in the way when pre-assembled cables are installed.

Performance features:

Horizontal and vertical installation in the cable duct or flush mounting Recording of fiber overlengths

Integrated splice protection for 4 splices

Cover 80mm x 80mm

Data outlet depth of 40mm for installation in flush-mounted boxes or cavity wall boxes













ET-25092.8



ET-25092.6



Adapter frame for design compatibility for ET-25092.x and FTTH-OUTLET-xx with various switch programmes

ArtNo.	Description	Colour
ET-25092.5	Adapter frame design compatibility with Berker, RAL9003	white
ET-25092.6	Adapter frame design compatibility with Jung, RAL9003	white
ET-25092.7	Adapter frame design compatibility with Merten, RAL900	white
ET-25092.8	Adapter frame design compatibility with Gira, RAL9003	white

ArtNo.	Colour	Equipped with adapter	Central plate according to	Dimensions
FTTH-OUTLET-LC-SMAPC	white	2x LC Duplex APC green	DIN 49075	80 x 80 x 40 mm
FTTH-OUTLET-LC-OS2	white	2x LC Duplex blue	DIN 49075	80 x 80 x 40 mm
FTTH-OUTLET-LC-OM4	white	2x LC Duplex erica-violet	DIN 49075	80 x 80 x 40 mm
FTTH-OUTLET-LC-OM3	white	2x LC Duplex aqua	DIN 49075	80 x 80 x 40 mm
FTTH-OUTLET-SC-SMAPC	white	2x SC Simplex APC green	DIN 49075	80 x 80 x 40 mm
FTTH-OUTLET-SC-OS2	white	2x SC Simplex blue	DIN 49075	80 x 80 x 40 mm
FTTH-OUTLET-SC-OM4	white	2x SC Simplex erica-violet	DIN 49075	80 x 80 x 40 mm
FTTH-OUTLET-SC-OM3	white	2x SC Simplex aqua	DIN 49075	80 x 80 x 40 mm

Outlet direction:	.down
Dust protection cap:	.shutter
Material bearing ring:	.Zinc alloy
Material central plate:	.ABS plastic
Material adapter plates:	.ABS plastic
Max. Assembly (Adapter):	.2
With bus/coupling:	.yes
Surface mounting:	.No
Flush mounted (plaster):	.yes
Duct installation:	.yes





FTTH 19" 1U Subrack for 8x Module FTTH-MODUL-X

19" subrack for FTTH-MODUL-XX (delivery without modules) Up to 96 LC ports to 1 unit with front-sided cable tray delivery without modules

Material: Steel sheet
Surface finishing: With powder coating
Type of enclosure: open
With ventilation slots: yes
Degree of protection (IP): IP20
Width: 483 mm
Height: 44.5 mm
Depth: 190.0 mm

ArtNo.	max. Modules	max. Ports	Colour
FTTH-BGT-1HE	8	96 LC / 48 SC	grey

FTTH 19" 3U Subrack for 17x Modul FTTH-MODUL-X

19" subrack for FTTH-MODUL-XX (delivery without modules) Up to 204 LC ports to 3 units with front-sided cable tray delivery without modules

Material:	Steel sheet
Surface finishing:	With powder coating
Type of enclosure:	open
With ventilation slots:	yes
Degree of protection (IP):	IP20
Width:	483 mm
Height:	135 mm
Depth:	190.0 mm

ArtNo.	max. Modules	max. Ports	Colour
FTTH-BGT-3HE	17	204 LC / 102 SC	grey



FTTH Cassette for FTTH-BGT

Suitable for 1U and 3U subrack FTTH-BGT-xHE

Pre-equipped with adapter in single mode, multimode OM4 or multimode OM3 with ceramic ferrule $\,$

Inclined outlet left/right for the 1U version, top/bottom outlet for the 3U version $\,$

Cable entry via MTP®/MPO adapter

Splice cassette (Shrink -and Crimpprotection) holder included in cassette for MTP $^{\rm o}/$ MPO free installation

Number of height units:0.5	
With Pigtail:No	

Delivery without Pigtail and MTP®/MPO adapter

ArtNo.	Modules	Quantity adapter	Adapter	APC	Adapter Colour
FTTH-MODUL-LCAPC	Singlemode	6	LC duplex	yes	green
FTTH-MODUL-LCOS2	Singlemode	6	LC duplex	No	blue
FTTH-MODUL-LCOM4	Multimode 0M4	6	LC duplex	No	erica-violet
FTTH-MODUL-LCOM3	Multimode OM3	6	LC duplex	No	aqua
FTTH-MODUL-SCOS2	Singlemode	6	SC	No	blue
FTTH-MODUL-SCOM4	Multimode 0M4	6	SC	No	erica-violet
FTTH-MODUL-SCOM3	Multimode 0M3	6	SC	No	agua





YOU ARE LOOKING FOR TRUNK

CABLES? YOU

WILL FIND THEM

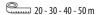
FROM PAGE 71





FTTH Dropcable SC pre-assembled

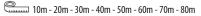
One-sided pre-assembled fiber optic drop cable with one SC/PC connector and one SC/APC connector. Fittingly assembled to be used in CPE's due to a different whip length of the two fibers.



ArtNo.	Cable type	Cable Ø	Colour outer sheath	Side A	Side 2A	Side 2B	Fiber type	Category
FTTH-DROP-SC-xx	Breakout	3 mm	white	open	1 x SC/APC 9/125μ	1 x SC 9/125μ	Singlemode	G657A2

FTTx Compact Box pre-assembled

Scope of application:Inside Mounting:.....Wall mounting Material:Plastic halogen free Colour:....white Number of adapters:2 IP Protection:....IP20 Dimensions:.....100 x 80 x 22 mm



ArtNo.	Fiber type	Fiber category	Cable diameter	Material outer sheath	Colour outer sheath	Adapter
53670.x	Singlemode	G657.A2	2.2 mm	LSZH	white	LC duplex
53680.x	Singlemode	G657.A2	2.2 mm	LSZH	white	SC simplex



FTTx DIN RAIL Adapter, Laser protection integrated

Scope of application:Inside Mounting:.....DIN Rail Material:Plastic halogen free Colour:....white RAL colour:....RAL9010 Number of adapters:4 IP Protection:....IP30 Dimensions:.....89.5 x 35 x 51.5 mm

15m - 30m - 50m - 10)0m
ArtNo.	Fib

- 11011 - 30111 - 30111 - 100111							
ArtNo.	Fiber type	Fiber category	Cable diameter	Material outer sheath	Colour outer sheath	Adapter	
53681.x	Singlemode	G657.A2	4.1 mm	LSZH	ivory	1x SC simplex	
53682.x	Singlemode	G657.A2	4.1 mm	LSZH	ivory	2x SC simplex	
53683.x	Singlemode	G657.A2	4.1 mm	LSZH	ivory	4x SC simplex	

Broadband Cable MDIC - Micro Drop Installation Cable

Delivery: 750 m Box

Material outer sheath:	.LSZH
Colour outer sheath:	.white
Temperature Range (Operation):	3070 – °C
Temperature Range (Storage):	3070 – °C
Temperature Range (Installation):	1050 – °C
IL max. (dB/km) 1310nm:	.0,35
IL max. (dB/km) 1550nm:	.0,22
Cabling standards:	.EN 50173-1;ISO/IEC 11801
Transmission standards:	IEEE 802.3 10Mbit bis 100Gbit

ArtNo.	Construct	Cable Ø	Weight	Bending radius	Tensile Force
56204.3	2 x Singlemode G.657.A1	2,0 x 3,1 mm	10 kg/km	30 mm	150 N
56204.4	4 x Singlemode G.657.A1	3,7 mm	16 kg/km	37 mm	150 N

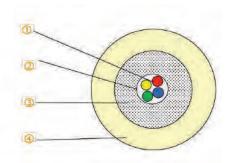
- Optical fiber : Optical fiber 250µm

- Thermoplastic sheath:
Microbundle 800µm LSOH

- Strength members : Aramid yarns

- Outer sheath : LSOH

NF EN 50290-2-27 Compliant



FTTH Indoor Drop Cable LSZH

Material outer sheath:	
Colour outer sheath:i	
Temperature Range (Operation):	-5 − 60 °C
Temperature Range (Storage):	-40 – 70 °C
Temperature Range (Installation):	-5 − 50 °C
Rayleigh Backscatter Coefficient 1310nm:	1,467
Rayleigh Backscatter Coefficient 1550nm:	1,468
Rayleigh Backscatter Coefficient 1625nm:	1,468
IL max. (dB/km) 1310nm:	0,36

ArtNo.	Construct	Cable Ø	Weight	Bending radius	Tensile Force
FTTH-DROP-2	2 x Singlemode G.657.A2	3,0 mm	11 kg/km	20 mm	15da N
FTTH-DROP-4	4 x Singlemode G.657.A2	2,65 mm	6.5 kg/km	15 mm	15da N

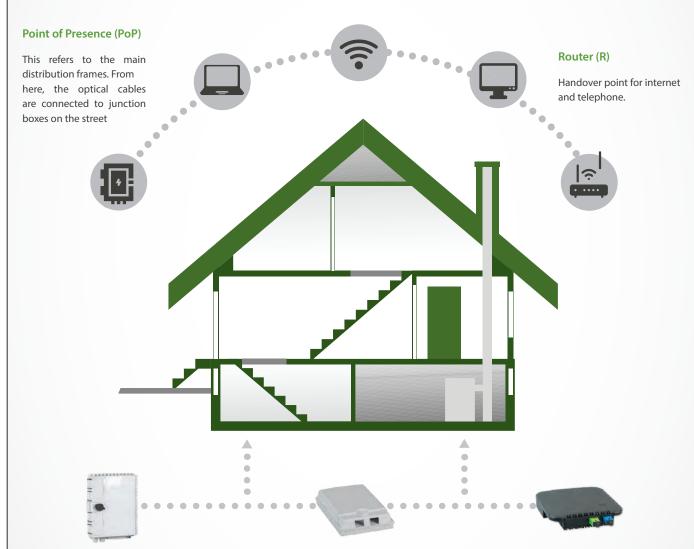
DOMESTIC CONNECTION WITH OPTICAL FIBER CABLING

Certain basic conditions have to be created for the successful installation of an FTTH network.

The building should have an accessible installation location for a building interconnection point. This location should not be more than 1.5 m from the building infeed. The building connection requires an area of approx. $0.8 \text{ m} \times 0.8 \text{ m}$.

The building should already be cabled with optical fiber from the building interconnection point to the interior area.

The optical fiber box can be placed in any location. The ONT is installed beside it. Two Schuko sockets are required for the ONT and a router. The distance between the socket and the ONT may not be more than 1 m.



Building Entry Point (BEP)

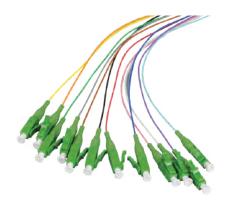
The building entry point is where the optical cable enters the building. The BEP is placed about 1.5 m from the house leadin and is installed in the basement or the building terminal compartment.

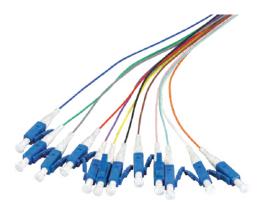
Optical Network Termination (ONT)

The ONT is the consumerend termination box. This is where the optical signal from the optical cable is converted into an electronic signal. The ONT also serves as the termination point of the FTTH network.

Optical Distribution Point (ODP)

Handover and termination of the optical Fiber up to the interior using an optical splitter or a Fiber optic port.





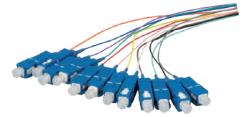
FTTH Fiber pigtail LC

Insertion loss 1310nm:	< 0.3 dB
Max. Tension:	3 N
Min. Bending Radius Static:	9 mm
Min. Bending Radius Dynamic:	18 mm
Outer Diameter:	0.9 mm
Jacket Material:	LSZH
Length:	2.0 m
Operating Temperature:	20 – 70 °C
Connector Conform to Standard	:IEC61754-20
Cable Conform to Standard:	IEC60793-2



ArtNo.	Category	Colour	APC-version	Connector Colour
FTTH-PIGTAIL-LCA1	G657A2 acc. to ITU-T G.657	yellow	True	green
FTTH-PIGTAIL-LC1	G657A2 acc. to ITU-T G.657	yellow	False	blue
FTTH-PIGTAIL-LCA12	G657A2 acc. to ITU-T G.657	12-colours	True	green
FTTH-PIGTAIL-LC12	G657A2 acc. to ITU-T G.657	12-colours	False	blue





FTTH Fiber pigtail SC

Insertion loss 1310nm:	.< 0.3 dB
Max. Tension:	.3 N
Min. Bending Radius Static:	9 mm
Min.Bending Radius Dynamic:	18 mm
Outer Diameter:	.0.9 mm
Jacket Material:	LSZH
Length:	2.0 m
Operating Temperature:	20 – 70 °C
Connector Conform to Standa	rd: IEC61754-4
Cable Conform to Standard:	IEC60793-2

ArtNo.	Category	Colour	APC-version	Connector Colour
FTTH-PIGTAIL-SCA1	G657A2 acc. to ITU-T G.657	yellow	True	green
FTTH-PIGTAIL-SC1	G657A2 acc. to ITU-T G.657	yellow	False	blue
FTTH-PIGTAIL-SCA12	G657A2 acc. to ITU-T G.657	12-colours	True	green
FTTH-PIGTAIL-SC12	G657A2 acc. to ITU-T G.657	12-colours	False	blue



Туре	PLC Splitter
Wavelength	1260nm to 1650nm
Splitting	Same split for all outputs
Performance	good for all splits, high grade of reliability and stability
Input/ Output	One or two inputs with a maximum of 64 outgoing fibers

PLC Splitter

Singlemode G657A1 Fiber
900µm Fiber
Entry side without connector
Output side with SC/APC connector
Main application in optical distributor boxes

Type of accessory/spare part:	PLC Splitter
Number of connectors front si	de: open
Colour:	Aluminium
Application:	CATV

ArtNo.	Connection type front side	Connection type backside	Split	length	width	heigths	Insertion loss (inc. connector)
FTTH-PLC4-LCA	open	LC/APC	1 to 4	55 mm	7 mm	4 mm	<7,4 dB
FTTH-PLC8-LCA	open	LC/APC	1 to 8	55 mm	7 mm	4 mm	<10,5 dB
FTTH-PLC16-LCA	open	LC/APC	1 to 16	60 mm	12 mm	4 mm	<13,8 dB
FTTH-PLC32-LCA	open	LC/APC	1 to 32	80 mm	20 mm	6 mm	<17 dB
FTTH-PLC64-LCA	open	LC/APC	1 to 64	100 mm	40 mm	6 mm	<20,6 dB
FTTH-PLC4-SCA	open	SC/APC	1 to 4	55 mm	7 mm	4 mm	<7,4 dB
FTTH-PLC8-SCA	open	SC/APC	1 to 8	55 mm	7 mm	4 mm	<10,5 dB
FTTH-PLC16-SCA	open	SC/APC	1 to 16	60 mm	12 mm	4 mm	<13,8 dB
FTTH-PLC32-SCA	open	SC/APC	1 to 32	80 mm	20 mm	6 mm	<17,0 dB
FTTH-PLC64-SCA	open	SC/APC	1 to 64	100 mm	40 mm	6 mm	<20,6 dB



Field Installable Connector with fiber holder

Material of ferrule:.....ceramic Connection type:.....clamp Cable Ø:.....0.9 mm

12er Set field installable SC/APC connectors OS2 green, with fiber holder

ArtNo.	Suitable for type of fiber	Type of connector	Colour	Insertion Loss	Return Loss
53196.1	Singlemode	LC	blue	0.5 dB	>55 dB
53197.1	Multimode	LC	aqua	0.3 dB	>35 dB
53198.1	Multimode	LC	black	0.3 dB	>35 dB
53199.1	Singlemode	SC	blue	0.5 dB	>55 dB
53200.1	Multimode	SC	aqua	0.3 dB	>35 dB
53201.1	Multimode	SC	black	0.3 dB	>35 dB
53204.1	Singlemode	SC	Green	0.3 dB	>55 dB











Wall mounting box for XON1300 & APL

Possibility of mast mounting:	No
Material:	Plastic
Colour:	white

ArtI	No.	Cable entry without cable gland	Number of Fibers	Dimensions	Temperature Range	Access Control
XON3	10	4	2	48 x 150 x 150 mm		without







Passive Network termination, optical CATV, without XON30 housing

ArtNo.	Mounting method
X0N1300.P	empty chassis





& BKLeL

Gigabit Ethernet Switch, 4xLAN, without XON30 housing

ArtNo.	Number of ports 10/100/1000 Mbps RJ45	Mounting method
X0N1300.S	4	empty chassis
X0N1300.SC	4	empty chassis



Outdoor Closures	P. 35
Dome Closures	P. 36 - 37
Junction Closures	P. 38 -39

// YOU MAY ALSO BE INTERESTED IN:

Fiber Optic Installation Cable	P. 62
Accessory /Splice Cassette, Splice Protection)	P. 59
Tools	P. 96
Splicing & Measurement Equipment	P. 104













Outdoor Pipe Closures

Material:	plastic
Colour:	Green
Operating Temperature:	30 – 65 °C
Splice Cassette:	integrated
Degree of protection (IP):.	IP68
Direct Burial:	True



ArtNo.	Suitable for number of fibers	In-/Output	Cable Diameter	Length of housing	Diameter of housing	Splice Holder	Type of closure
83187.1	24	2	3.5 – 10.7 mm	307 mm	69 mm	crimp	Connecting closure
83189.1	24	3	3.5 – 10.7 mm	307 mm	69 mm	shrink	Junction closure
83189.3	48	3	7 – 17 mm	360 mm	101 mm	crimp	Junction closure

Accessory

,	
ArtNo.	Description
83189.35	Key for FDM-2 (1 piece), for 83189.3
83187.5	Key-Set for FDM-1 (2 pieces), for 83187.1 & 83189.1
53100.32	Crimp arc splice protection, Telekom approved, (min. PPU 30/ package 150pcs)
53100.3	Crimp splice protector for arc splices, (min. PPU 15/ package 150pcs)
53100.9-100	Splice Heat Shrink, transparent, length: 60mm, PU 100

ASSEMBLE DOME CLOSURES ACCORDING TO YOUR REQUIREMENTS

Step 1: Selection of housing type

Dome closure FOC, round Ø 285 mm, protection degree IP68

Two oval ports for uncut tubes or loop-cable

Eight round ports with each 32mm diameter

Cable entries with mechanical seal at customers choice, see accessories

Splice trays with crimp- or heat splice holder, see accessories

Dome closure CFOC, flach 290 x 150 mm, protection degree IP68

One oval port for uncut tubes or loop-cable

Six round ports with each 32mm diameter

Cable entries with mechanical seal at customers choice, see accessories

Splice trays with crimp- or thermo splice holder, see accessories



Design: round Height: 525 mm



2 x oval entry 8 x round entry



Design: flat Height: 380 mm



Design: flat Height: 450 mm



1 x oval entry 6 x round entry

Standards	Temperature Range
Direct burial (underground) or for areal-applications (overground)	Operation: -40°C +70°C
Protection degree: IP68, Material: plastic, Colour: black	Transport /Storage: -10°C +40°C

capacity: Tray count / Fiber count

ArtNo.	STHD2-6-12A (ANT)	STHD2-6-12H (Heat)	STHD2-4-12A (ANT)	STHD2-4-12H (Heat)	
FOC2-CB	84 / 1008	84 / 1008	56 / 672	56 / 672	

capacity: Tray count / Fiber count

ArtNo.	STHD2-6-12A (ANT)	STHD2-6-12H (Heat)	STHD2-4-12A (ANT)	STHD2-4-12H (Heat)	
CFOC2-AA	18 / 216	18 / 216	12 / 144	12 / 144	
CFOC2-AB	30/360	30 / 360	20 / 240	20 / 240	

Step 2: Selection of tray type







Shelf tray set height 4 mm / 6 mm - both variants suitable for both housing types (round/flat)

- Shelf tray set with 4 mm height
- For high density

- or
- Shelf tray set with 6 mm height
- For optimised fiber management

ArtNo.	Tray set count	Splices	Splice protection	Height
STHD2-6-12A	6 cassettes	72 (6 x 12)	Crimp (ANT)	4 mm
STHD2-6-12H	6 cassettes	72 (6 x 12)	Thermo (Heat)	4 mm
STHD-COVER	cover for STHD2-6	A, STHD2-6H, STI	HD2-4A and STHD2-4H	

ArtNo.	Tray set count	Splices	Splice protection	Height
STHD2-4-12A	4 cassettes	48 (4 x 12)	Crimp (ANT)	6 mm
STHD2-4-12H	4 cassettes	48 (4 x 12)	Thermo (Heat)	6 mm
STHD-COVER	cover for STHD2-6	A, STHD2-6H, ST	HD2-4A and STHD2-4H	

Step 3: Selection of cable entries



Multiple cable entries for small diameter

ArtNo.	Entries/ Outlets	Suitable for cable	Design
FOC-MRS-6X8	6 x 8 mm	max. 6 x 4 8 mm	round
FOC-MRS-16X3	16 x 3 mm	max. 16 x 0 3 mm	round
FOC-MRS-1X20	1 x 20 mm	max. 1 x 10 20 mm	round
FOC-MRS-2X12	2 x 12 mm	max. 2 x 8 12 mm	round
FOC-MOS-2X20	2 x 20 mm	max. 2 x 10 20 mm	flat
FOC-MOS-4X10	4 x 10 mm	max. 4 x 5 10 mm	flat

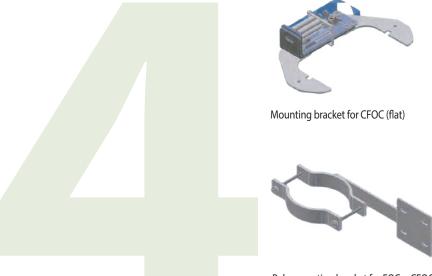
Step 4: Selection of accessories



Mounting bracket for FOC (round)



Cable fixing bracket for FOC + CFOC (round + flat)



Pole mounting bracket for FOC + CFOC
(round + flat)

ArtNo.	Description	Closure type
FOC-MB	Mounting bracket for dome closure round	FOC round
CFOC-MB	Mounting bracket for dome closure flat	CFOC flat
FOC-CFB	Cable fixing bracket for round or flat	FOC + CFOC
FOC-PMB	Pole mounting bracket for round or flat	FOC + CFOC

Further closures or special types on request!



FO Junction Splice Closure Outdoor II

Suitable for number of fibers	:24
In-/Output:	4
Cable Diameter:	8 – 23 mm
Dimension (LxBxH):	470 x 123 x 104 mm
Material:	plastic
Operating Temperature:	40 – 70 °C
Splice Cassette:	integrated
Splice Holder:	crimp
Degree of protection (IP):	IP68
Direct Burial:	True

ArtNo.	Type of closure
83184.1	Junction closure

Accessory

ArtNo.	Description
53100.200	Splice cassette w/o Logo white
53100.201	Splice cassette cover, white
53100.21	Spliceholder for 12 arc splices
53100.3	Crimp splice protector for arc splices, (min. PPU 15/ package 150pcs)
53100.8	Splice holder for 6 x arc splices with shrink tube, black
53100.91-100	Splice Heat Shrink, transparent, length: 45mm, PU 100





FO Splice Closure Outdoor 3M

Suitable for number of fibers: 48
In-/Output:4
Cable Diameter: 10 – 25 mm
Dimension (LxBxH):399 x 175 x 107 mm
Material:plastic
Operating Temperature:45 – 60 °C
Splice Cassette:without cassette
Splice Holder:without
Degree of protection (IP):IP68
Direct Burial: True

ArtNo.	Type of closure
83200.1	Junction closure

Accessory

,	
ArtNo.	Description
53100.200	Splice cassette w/o Logo white
53100.201	Splice cassette cover, white
53100.21	Spliceholder for 12 arc splices
53100.91-100	Splice Heat Shrink, transparent, length: 45mm, PU 100
53100.3	Crimp splice protector for arc splices, (min. PPU 15/ package 150pcs)
53100.8	Splice holder for 6 x arc splices with shrink tube, black





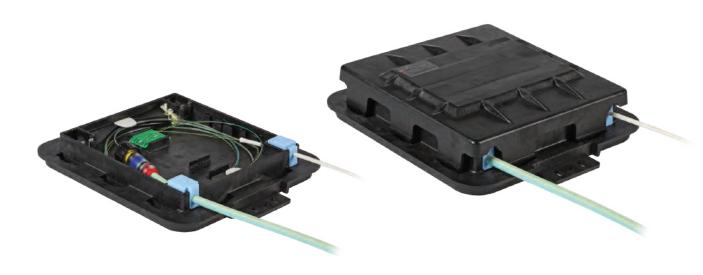


Inline-closure for 24 splices



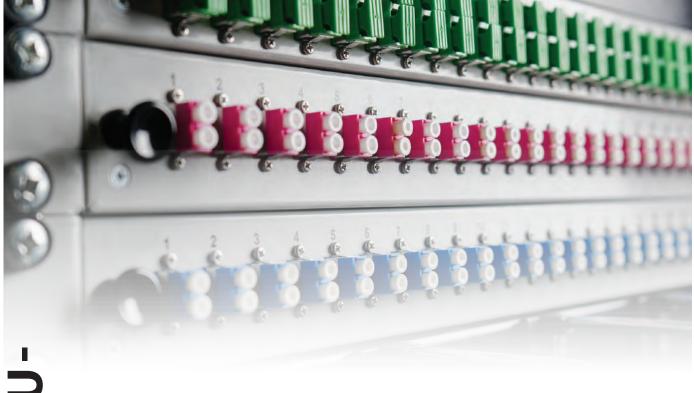


Art.-No. Type of closure
83127.1V2 Junction closure



FO Splice Closure compact

ArtNo.	Type of closure
83205.1	Junction closure



19" Splice Boxes P. 42 - 47 Front panel unequipped P. 46 Pre-assembled splice cassettes P. 48 Pre-assembled front panel P. 49 P. 50 - 56 Distributors Data outlets P. 57 Accessories P. 59 - 60 **Subracks** P. 60 - 61

// YOU MAY ALSO BE INTERESTED IN:

19" Network Cabinets	P. 184
Adapters	P. 92 - 94
Transceiver	P. 330

SPLICE BOXES 19"/1U

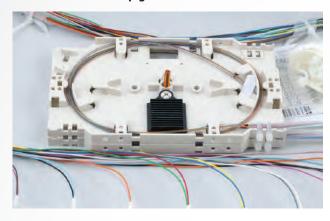


COMPLETELY EQUIPPED AND READY TO SPLICE

Order code for the splice box prepared ready for splicing:

Each completely equipped splice box can also be ordered ready for splicing.

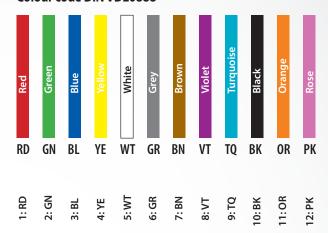
By adding an A to the partnumber you can order a box with stripped pigtails. The number behind the dot shows the number of assembled pigtails.



LC Pigtails to LC Adapters completely equipped, slide-out splice box 19" 1U, RAL7035, ready to splice

ArtNo.	Description
BA71902.xx0M4	Splice Box LC-Duplex completely equipped, sliding version, ready to splice

Colour code DIN VDE0888

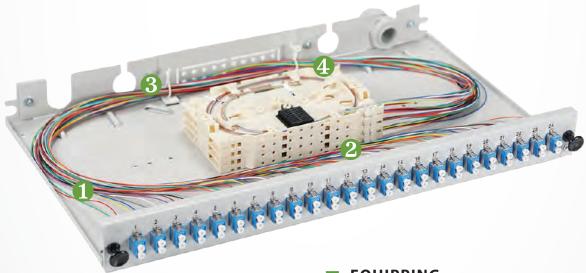


Prepared ready to splice:

The colour coded pigtails are according to colour code DIN VDE0888 assembled into the feedthrough adapters. The 900 μ fibers are properly laid through the fiber guides in the splice box and inserted into the splice cassette.

In the splice cassette the secondary coating (900 μ) of the fibers is deposited in a length-adjusted manner. The 250 μ fibers are guided in the splice cassette and shortened to the same length.

The coloured primary coating (250µ) makes colour allocation easy.



EQUIPPING

In the shortest possible time, individual customer orders are prepared "just-in-time" in the company's own production facilities ready for splicing and delivered on schedule. In order to keep the delivery time as short as possible, we have an extensive range of products in stock for you.

Fiber pigtails with through-dyed, colour-coded primary and secondary coating.

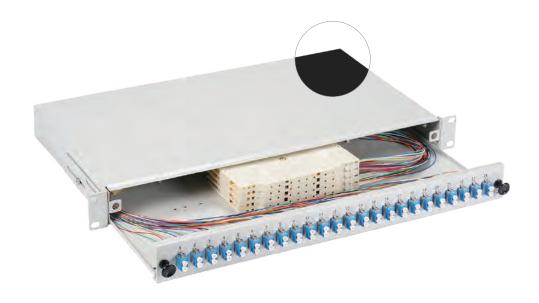
- Plugged into the feedthrough adapters according to colour code DIN VDE0888.
- Proper fiber guidance in the splice box.
- Fibers inserted into the splice cassette, set down and shortened.

■ WIDE RANGE OF PRODUCTS

The high availability of our stock of semi-finished products enables us to offer a wide range of products. This provides the right product for every application with spliced or pre-assembled variants.

SPECIAL VARIANTS

Ask for special variants, e.g. OM4 and OS2 mixed, our production department will find the right solution for you.







Completely assembled splice box with adapters and coloured pigtails Metal housing, depth adjustable
Cable entries at the rear, incl. 1 x PG16
6 x self adhesive fiber tray
Special assembly possible at short notice!

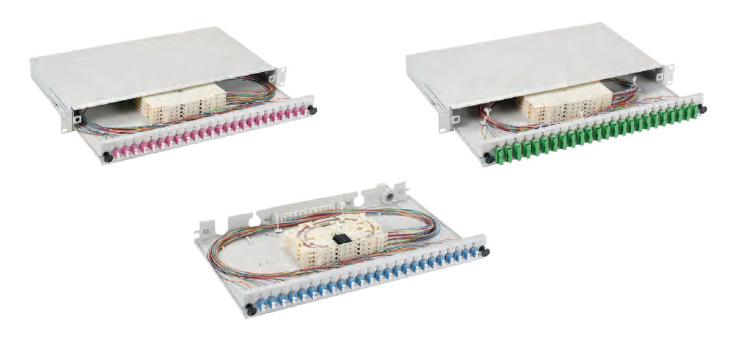




Completely Assembled Splice Box LC, Standard

ArtNo.	Fiber class	Fiber type	Adapter colour	Pigtail	With number of adapters	Colour
BA71920.xx	OS2 acc. to ITU-T G.652.D	Singlemode	green	12 - 24 - 48 x LC/APC, stripped	6 - 12 - 24	grey
BA71921.xx	OS2 acc. to ITU-T G.652.D	Singlemode	blue	12 - 24 - 48 x LC, stripped	6 - 12 - 24	grey
BA71921TS.xx	OS2 acc. to ITU-T G.652.D	Singlemode	blue	12 - 24 - 48 x LC, stripped	6 - 12 - 24	black
BA71901.xx0M5	OM5	Multimode 50/125	lime green	12 - 24 - 48 x LC, stripped	6 - 12 - 24	grey
BA71901.xx0M4	OM4	Multimode 50/125	violet	12 - 24 - 48 x LC, stripped	6 - 12 - 24	grey
BA71901.xx0M3	OM3	Multimode 50/125	aqua	12 - 24 - 48 x LC, stripped	6 - 12 - 24	grey
BA71921SA.xx ①	OS2 acc. to ITU-T G.652.D	Singlemode	blue	12 - 24 - 48 x LC, stripped	6 - 12 - 24	grey
BA71901V.xx0M3	OM3	Multimode 50/125	aqua	12 - 24 - 48 x LC, stripped	6 - 12 - 24	grey
B71920.xx	OS2 acc. to ITU-T G.652.D	Singlemode	green	12 - 24 - 48 x LC/APC, not stripped	6 - 12 - 24	grey
371921.xx	OS2 acc. to ITU-T G.652.D	Singlemode	blue	12 - 24 - 48 x LC, not stripped	6 - 12 - 24	grey
B71921TS.xx	OS2 acc. to ITU-T G.652.D	Singlemode	blue	12 - 24 - 48 x LC, not stripped	6 - 12 - 24	black
B71901.xx0M5	OM5	Multimode 50/125	lime green	12 - 24 - 48 x LC, not stripped	6 - 12 - 24	grey
B71901.xx0M4	OM4	Multimode 50/125	violet	12 - 24 - 48 x LC, not stripped	6 - 12 - 24	grey
371901TS.xx0M4	OM4	Multimode 50/125	violet	12 - 24 - 48 x LC, not stripped	6 - 12 - 24	black
371901.xx0M3	OM3	Multimode 50/125	aqua	12 - 24 - 48 x LC, not stripped	6 - 12 - 24	grey
371901TS.xx0M3	OM3	Multimode 50/125	aqua	12 - 24 - 48 x LC, not stripped	6 - 12 - 24	black
371921SA.xx	OS2 acc. to ITU-T G.652.D	Singlemode	blue	12 - 24 - 48 x LC, not stripped	6 - 12 - 24	grey
3A71922.xx	OS2 acc. to ITU-T G.652.D	Singlemode	metal	12 - 24 - 48 x LC, stripped	6 - 12 - 24	grey
3A71922TS.xx	OS2 acc. to ITU-T G.652.D	Singlemode	metal	12 - 24 - 48 x LC, stripped	6 - 12 - 24	black
3A71924.xx	OS2 acc. to ITU-T G.652.D	Singlemode	metal	12 - 24 - 48 x LC/APC, stripped	6 - 12 - 24	grey
3A71902.xx0M4	OM4	Multimode 50/125	metal	12 - 24 - 48 x LC, stripped	6 - 12 - 24	grey
3A71902TS.xx0M4	OM4	Multimode 50/125	metal	12 - 24 - 48 x LC, stripped	6 - 12 - 24	black
3A71902.xx0M3	OM3	Multimode 50/125	metal	12 - 24 - 48 x LC, stripped	6 - 12 - 24	grey
3A71902TS.xx0M3	OM3	Multimode 50/125	metal	12 - 24 - 48 x LC, stripped	6 - 12 - 24	black
B71922.xx	OS2 acc. to ITU-T G.652.D	Singlemode	metal	12 - 24 - 48 x LC, not stripped	6 - 12 - 24	grey
371922TS.xx	OS2 acc. to ITU-T G.652.D	Singlemode	metal	12 - 24 - 48 x LC, not stripped	6 - 12 - 24	black
371924.xx	OS2 acc. to ITU-T G.652.D	Singlemode	metal	12 - 24 - 48 x LC/APC, not stripped	6 - 12 - 24	grey
371902.xx0M4	OM4	Multimode 50/125	metal	12 - 24 - 48 x LC, not stripped	6 - 12 - 24	grey
371902TS.xx0M4	OM4	Multimode 50/125	metal	12 - 24 - 48 x LC, not stripped	6 - 12 - 24	black
371902.xx0M3	OM3	Multimode 50/125	metal	12 - 24 - 48 x LC, not stripped	6 - 12 - 24	grey
B71902TS.xx0M3	OM3	Multimode 50/125	metal	12 - 24 - 48 x LC, not stripped	6 - 12 - 24	black

1 Angled outlet



Completely Assembled Splice Box SC, Standard

ArtNo.	Fiber class	Fiber type	Adapter colour	Pigtail	With number of adapters	Colour
BA71223.xx	OS2 acc. to ITU-T G.652.D	Singlemode	blue	12 - 24 - 48 x SC, stripped	6 - 12 - 24	grey
BA71223TS.xx	OS2 acc. to ITU-T G.652.D	Singlemode	blue	12 - 24 - 48 x SC, stripped	6 - 12 - 24	black
BA71228.xx	OS2 acc. to ITU-T G.652.D	Singlemode	green	12 - 24 - 48 x SC/APC, stripped	6 - 12 - 24	grey
BA71228TS.xx	OS2 acc. to ITU-T G.652.D	Singlemode	green	12 - 24 - 48 x SC/APC, stripped	6 - 12 - 24	black
BA71203.120M5	OM5	Multimode 50/125	lime green	12 - 24 - 48 x SC, stripped	6 - 12 - 24	grey
BA71203.xx0M4	OM4	Multimode 50/125	violet	12 - 24 - 48 x SC, stripped	6 - 12 - 24	grey
BA71203TS.xx0M4	OM4	Multimode 50/125	violet	12 - 24 - 48 x SC, stripped	6 - 12 - 24	black
BA71203.xx0M3	OM3	Multimode 50/125	aqua	12 - 24 - 48 x SC, stripped	6 - 12 - 24	grey
BA71203TS.xxOM3	OM3	Multimode 50/125	aqua	12 - 24 - 48 x SC, stripped	6 - 12 - 24	black
B71223.xx	OS2 acc. to ITU-T G.652.D	Singlemode	blue	12 - 24 - 48 x SC, not stripped	6 - 12 - 24	grey
B71223TS.xx	OS2 acc. to ITU-T G.652.D	Singlemode	blue	12 - 24 - 48 x SC, not stripped	6 - 12 - 24	black
B71228.xx	OS2 acc. to ITU-T G.652.D	Singlemode	green	12 - 24 - 48 x SC/APC, not stripped	6 - 12 - 24	grey
B71203.120M5	OM5	Multimode 50/125	lime green	12 - 24 - 48 x SC, not stripped	6 - 12 - 24	grey
B71203.xx0M4	OM4	Multimode 50/125	violet	12 - 24 - 48 x SC, not stripped	6 - 12 - 24	grey
B71203TS.xx0M4	OM4	Multimode 50/125	violet	12 - 24 - 48 x SC, not stripped	6 - 12 - 24	black
B71203.xx0M3	OM3	Multimode 50/125	aqua	12 - 24 - 48 x SC, not stripped	6 - 12 - 24	grey
B71203TS.xx0M3	OM3	Multimode 50/125	aqua	12 - 24 - 48 x SC, not stripped	6 - 12 - 24	black

Completely Assembled Splice Box E2000®

ArtNo.	Fiber class	Fiber type	Adapter colour	Pigtail	With number of adapters	Colour
BA71503.xx0M4	OM4	Multimode 50/125	beige	12 - 24 - 48 x E2000 [®] , stripped	6 - 12 - 24	grey
BA71503.xx0M3	0M3	Multimode 50/125	beige	12 - 24 - 48 x E2000®, stripped	6 - 12 - 24	grey
BA71503.xx	OM2	Multimode 50/125	beige	12 - 24 - 48 x E2000®, stripped	6 - 12 - 24	grey
BA71523.xx	OS2 acc. to ITU-T G.652.D	Singlemode	blue	12 - 24 - 48 x E2000 [®] , stripped	6 - 12 - 24	grey
BA71533.xx	OS2 acc. to ITU-T G.652.D	Singlemode	green	12 - 24 - 48 x E2000®/APC, stripped	6 - 12 - 24	grey
BA71533TS.xx	OS2 acc. to ITU-T G.652.D	Singlemode	green	12 - 24 - 48 x E2000®/APC, stripped	6 - 12 - 24	black
B71503.xx0M3	OM3	Multimode 50/125	beige	12 - 24 - 48 x E2000 [®] , not stripped	6 - 12 - 24	grey
B71503.xx	OM2	Multimode 50/125	beige	12 - 24 - 48 x E2000 [®] , not stripped	6 - 12 - 24	grey
B71533TS.xx	OS2 acc. to ITU-T G.652.D	Singlemode	green	12 - 24 - 48 x E2000®/APC, not stripped	6 - 12 - 24	black
BA71533SA.xx①	OS2 acc. to ITU-T G.652.D	Singlemode	green	12 x E2000®/APC, stripped	12	grey

① Angled outlet

Completely Assembled Splice Box ST, Standard

ArtNo.	Fiber class	Fiber type	Adapter colour	Pigtail	With number of adapters	Colour
BA71006.xx0M4	OM4	Multimode 50/125	metal	12 - 24 - 48 x ST, stripped	6 - 12 - 24	grey
BA71006.xx0M3	0M3	Multimode 50/125	metal	12 - 24 - 48 x ST, stripped	6 - 12 - 24	grey
BA71006.xx	OM2	Multimode 50/125	metal	12 - 24 - 48 x ST, stripped	6 - 12 - 24	grey
BA71023.xx	OS2 acc. to ITU-T G.652.D	Singlemode	metal	12 - 24 - 48 x ST, stripped	6 - 12 - 24	grey
B71006.xx0M4	OM4	Multimode 50/125	metal	12 - 24 - 48 x ST, not stripped	6 - 12 - 24	grey
B71006.xx0M3	OM3	Multimode 50/125	metal	12 - 24 - 48 x ST, not stripped	6 - 12 - 24	grey
B71006TS.xx0M3	0M3	Multimode 50/125	metal	12 - 24 - 48 x ST, not stripped	6 - 12 - 24	black



Partially Assembled Splice Box

Partly assembled splice box with adapters
Per 12 adapters, 1 splice cassette with 1 splice holder
Suitable up to 4 splice cassettes
Metal housing depth adjustable
Front panel screwed
coloured adapters
cable entries at the rear

Partially Assembled Splice Box LC-Duplex, non sliding unit

ArtNo.	Fiber class	Fiber type	Adapter colour	With number of adapters	Colour
B61901.xx0N	4 OM4	Multimode 50/125	violet	6 - 12 - 24	grey

Partially Assembled Splice Box LC-Duplex, sliding unit

ArtNo.	Fiber class	Fiber type	Adapter colour	With number of adapters	Colour
B61901.xx	OM2	Multimode 50/125	beige	6 - 12 - 24	grey
B61901.xx0M3	OM3	Multimode 50/125	aqua	6 - 12 - 24	grey
B61901TS.xx0M3	OM3	Multimode 50/125	aqua	6 - 12 - 24	black
B61902.xx		Multimode 50/125	metal	6 - 12 - 24	grey
B61922.xx	OS2 acc. to ITU-T G.652.D	Singlemode	metal	6 - 12 - 24	grey
B61921.xx	OS2 acc. to ITU-T G.652.D	Singlemode	blue	6 - 12 - 24	grey
B61921TS.xx	OS2 acc. to ITU-T G.652.D	Singlemode	blue	6 - 12 - 24	black

Partially Assembled Splice Box SC-Duplex, sliding unit

ArtNo.	Fiber class	Fiber type	Adapter colour	With number of adapters	Colour
B61203.xx	OM2	Multimode 50/125	beige	6 - 12 - 24	grey
B61203.xx0M3	OM3	Multimode 50/125	aqua	6 - 12 - 24	grey
B61203.xx0M4	OM4	Multimode 50/125	violet	6 - 12 - 24	grey
B61223.xx	OS2 acc. to ITU-T G.652.D	Singlemode	blue	6 - 12 - 24	grey
B61223TS.xx	OS2 acc. to ITU-T G.652 D	Singlemode	blue	6 - 12 - 24	black

Partially Assembled Splice Box E2000®, sliding unit

Art	No.	Fiber class	Fiber type	Adapter Colour	With number of adapters	Colour
B61	533.x	OS2 acc. to ITU-T G.652.D	Singlemode	green	6 - 12 - 24	grey

Partially Assembled Splice Box ST, non sliding unit

ArtNo.	Fiber class	Adapter colour	With number of adapters	Colour
B61003.xx	Multimode 50/125	metal	6 - 12 - 24	grey

Note: xx set number of Pigtails. Preferred storage types see table.

19" SPLICE BOXES | SPLICE BOXES, DISTRIBUTORS, SUBRACKS & ACCESSORIES











Partially Assembled Breakout box OM4

Partially Assembled Breakout box equipped with LC duplex adapter OM4
Front panel screwed and adapters inserted
Metal box

ArtNo.	Fiber class	Fiber type	Adapter colour	With number of adapters	Colour
B65901.20M4	OM4	Multimode 50/125	erica-violet	2	grey
B65901.30M4	OM4	Multimode 50/125	erica-violet	3	grey
B65901.40M4	OM4	Multimode 50/125	erica-violet	4	grey
B65901.60M4	OM4	Multimode 50/125	erica-violet	6	grey
B65901.80M4	OM4	Multimode 50/125	erica-violet	8	grey
B65901.100M4	OM4	Multimode 50/125	erica-violet	10	grey
B65901.120M4	OM4	Multimode 50/125	erica-violet	12	grey
B65901.160M4	OM4	Multimode 50/125	erica-violet	16	grey
B65901.180M4	OM4	Multimode 50/125	erica-violet	18	grey
B65901.240M4	OM4	Multimode 50/125	erica-violet	24	grey

Partially Assembled Breakout box OM3

ArtNo.	Fiber class	Fiber type	Adapter colour	With number of adapters	Colour
B65901.20M3	OM3	Multimode 50/125	aqua	2	grey
B65901.30M3	OM3	Multimode 50/125	aqua	3	grey
B65901.40M3	OM3	Multimode 50/125	aqua	4	grey
B65901.60M3	OM3	Multimode 50/125	aqua	6	grey
B65901.80M3	OM3	Multimode 50/125	aqua	8	grey
B65901.120M3	OM3	Multimode 50/125	aqua	12	grey
B65901.240M3	OM3	Multimode 50/125	aqua	24	grey

Partially Assembled Breakout box OM2

ArtNo.	Fiber class	Fiber type	Adapter colour	With number of adapters	Colour
B65901.2	OM2	Multimode 50/125	beige	2	grey
B65901.3	OM2	Multimode 50/125	beige	3	grey
B65901.4	OM2	Multimode 50/125	beige	4	grey
B65901.6	OM2	Multimode 50/125	beige	6	grey
B65901.8	OM2	Multimode 50/125	beige	8	grey
B65901.12	OM2	Multimode 50/125	beige	12	grey
B65901.16	OM2	Multimode 50/125	beige	16	grey
B65901.24	OM2	Multimode 50/125	beige	24	grey























Inseration for microcable

keystones

Splice box equipped with Easy entry for pre-assembled cable

Angle bracket

Rear side cable entry for 24 copper Cable

Equipable with 4 splice cassettes with sleeve nut 80555.1

Equipable with micro and installation cable

Splice Box sliding version 1U without front panel, unequipped

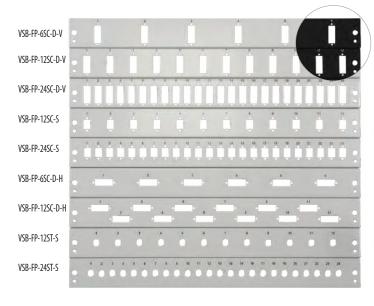
With sleeve nut (Art.-No. 80555.1) max. 4 splice cassettes installable Cable entry at the rear, prepared for PG16/M20 Changeable cable entry for straight and angled Cable entry in the middle for thinner cable

ArtNo.	Description	Colour
VSB-A-GR	Splice box sliding version 1U without front panel, unequipped, grey	Grey
VSB-A-SW	Splice box sliding version 1U without front panel, unequipped, black	Black

Accessories

ArtNo.	Colour
VSB-A-GR-WINKEL	grey
VSB-A-SW-WINKEL	black

Front Panel for Splice- and Breakoutboxes



RAL7035 (grey)	RAL9005 (black)	Version of front panel
VSB-FP-6SC-D-H	VSB-FP-SW-6SC-D-H	6 x SC Duplex horizontal, shiftet
VSB-FP-12SC-D-H	VSB-FP-SW-12SC-D-H	12 x SC Duplex horizontal, shiftet
VSB-FP-6SC-D-V	VSB-FP-SW-6SC-D-V	6 x SC Duplex vertical
VSB-FP-12SC-D-V	VSB-FP-SW-12SC-D-V	12 x SC Duplex vertical
VSB-FP-24SC-D-V	VSB-FP-SW-24SC-D-V	24 x SC Duplex vertical
VSB-FP-12SC-S	VSB-FP-SW-12SC-S	12 x SC Simplex/E2000® Simplex/MTRJ/LC Duplex
VSB-FP-24SC-S	VSB-FP-SW-24SC-S	24 x SC Simplex/E2000® Simplex/MTRJ/LC Duplex
VSB-FP-12ST-S	VSB-FP-SW-12ST-S	12 x ST / FC (D-hole)
VSB-FP-24ST	VSB-FP-SW-24ST	24 x ST / FC (D-hole)
53018.1		6 x SC Simplex/E2000® Simplex/MTRJ/LC Duplex vertical
53034.1V2		12 x E2000®Duplex, E2000® Compact (RDM) new version
53036.1		12 x Keystone + 12 x SC Simplex
53036.2		12 x Keystone + 12 x SC Duplex
53036.3		24 x Slimline Keystone E-20095
53042.1		24 x MPO/MTP



19" 1U Splice Box, unassembled, sliding unit, RAL7035

Unassembled, depth adjustable steel sheet 1.5 mm 6 x self adhesive fiber tray front panel screwed with sleeve nut (item 80555.1) max. 4 splice cassettes installable cable entry at the rear, prepared for PG16/M20

ArtNo.	Suitable for connector	Suitable for number of adapters
53600.0	without front panel	-
53600.1	ST	24
53600.2	ST	12
53600.3	SC duplex/ LC quad	24
53600.4	SC duplex/ LC quad	12
53600.6	SC duplex/ LC quad	6
53600.7	SC duplex/ LC quad	6
53600.8	SC duplex/ LC quad	12
53600.9	SC simplex/ E2000 simplex/ LC-duplex	12
53600.10	SC simplex/ E2000 simplex/ LC-duplex	24



19" 1U Splice Box, slideless unit, RAL7035

Unassembled, depth adjustable steel sheet 1.5 mm 6 x self adhesive fiber tray front panel screwed

with sleeve nut (item 80555.1) max. 4 splice cassettes installable cable entry at the rear, prepared for PG16/M20

ArtNo. Suitable for connector		Suitable for number of adapters	
53601.0	without front panel	-	
53601.1	ST	24	
53601.2	ST	12	
53601.3	SC duplex/ LC quad	24	
53601.4	SC duplex/ LC quad	12	
53601.6	SC duplex/ LC quad	6	
53601.7	SC duplex/ LC quad	6	
53601.8	SC duplex/ LC quad	12	
53601.9	SC simplex/ E2000 simplex/ LC-duplex	12	
53601.10	SC simplex/ E2000 simplex/ LC-duplex	24	



19" 1U Breakout box, not extendible, RAL7035

steel sheath 1.5 mm fully assembled also available!

ArtNo.	Suitable for connector	Suitable for number of adapters
53608.0	without front panel	-
53608.4	SC duplex/ LC quad	12
53608.9	SC simplex/ E2000 simplex/ LC-duplex	12



19" 1U Splice Box, unassembled, sliding unit, RAL9005

Unassembled, depth adjustable steel sheet 1.5 mm 6 x self adhesive fiber tray front panel screwed

with sleeve nut (item 80555.1) max. 4 splice cassettes installable cable entry at the rear, prepared for PG16/M20

ArtNo.	Suitable for connector	Suitable for number of adapters
53600TS.1	ST	24
53600TS.2	ST	12
53600TS.3	SC duplex/ LC quad	24
53600TS.4	SC duplex/ LC quad	12
53600TS.8	SC duplex/ LC quad	12
53600TS.9	SC simplex/ E2000 simplex/ LC-duplex	12
53600TS.10	SC simplex/ E2000 simplex/ LC-duplex	24



19" 1U Splice Box, slideless unit, RAL9005

Unassembled, depth adjustable steel sheet 1.5 mm 6 x self adhesive fiber tray front panel screwed

with sleeve nut (item 80555.1) max. 4 splice cassettes installable cable entry at the rear, prepared for PG16/M20

ArtNo.	Suitable for connector	Suitable for number of adapters
53601TS.0	without front panel	-
53601TS.1	ST	24
53601TS.4	SC duplex/ LC quad	12
53601TS.9	SC simplex/ E2000 simplex/ LC-duplex	12



19" 1U Splice Box with telescopic-pull out and quick-lock, **RAL9005**

- sliding unit with telescopic pull-out, depth adjustable up to 60 mm
- unassembled
- steel sheet 1.5 mm
- colour RAL9005, black
- dimensions (W x H x D) 483 x 44.5 x 280 mm
- 6 x adhesive fiber tray
- \bullet cable entry back sided, prepared for cable gland PG16/M20

ArtNo.	Suitable for connector	Suitable for number of adapters
53640TS.3	SC duplex/ LC quad	24
53640TS.4	SC duplex/ LC quad	12
53640TS.9	SC simplex/ E2000 simplex/ LC-duplex	12
53640TS.10	SC simplex/ E2000 simplex/ LC-duplex	24









Equipped splice cassette with coloured stripped pigtails LC

Equipped splice cassette with pigtails in the categories OM3, OM4, OM5, OS2 and OS2/APC. These are available in LC and SC mating faces. The pigtails are stripped, inserted into the splice cassette and have a length of 80cm outside the cassette in order to be able to implement the cable routing in the splice box correspondingly easily. The pigtails are colour-coded according to VDE-0888 with a solid-coloured coating and 12-coloured jacket. The measurement protocols of the individual fibers are enclosed in the packaging unit. In addition, the crimp splice holder (12 splices) is pre-assembled in the splice cassette, the shrink splice protector (2 x 6 splices) is enclosed in the packaging unit.

ArtNo.	Description
53100.204	Equipped splice cassette with coloured stripped pigtails LC OM3
53100.205	Equipped splice cassette with coloured stripped pigtails LC OM4
53100.206	Equipped splice cassette with coloured stripped pigtails LC OM5
53100.207	Equipped splice cassette with coloured stripped pigtails LC OS2
53100.212	Equipped splice cassette with coloured stripped pigtails LC/APC OS2









Equipped splice cassette with coloured stripped pigtails SC $\,$

ArtNo.	Description
53100.208	Equipped splice cassette with coloured stripped pigtails SC OM3
53100.209	Equipped splice cassette with coloured stripped pigtails SC OM4
53100.210	Equipped splice cassette with coloured stripped pigtails SC OM5
53100.211	Equipped splice cassette with coloured stripped pigtails SC 0S2
53100.213	Fruinned splice cassette with coloured stripped pigtails SC/APC OS2





Equipped Front Panel with SC Duplex Adapter

Front panel for 19" splice boxes equipped with SC duplex adapters in the categories OM3, OM4 and OS2.

ArtNo.	Number of ports	Equipped with adapter	Remark	Colour
SB-FP-6SC-D-V-0M3	6	SC Duplex aqua	holes horizontal	grey RAL7035
SB-FP-6SC-D-V-0M4	6	SC Duplex erica violet	holes horizontal	grey RAL7035
SB-FP-6SC-D-V-0S2	6	SC Duplex blue	holes horizontal	grey RAL7035
SB-FP-S-6SC-D-V-0M3	6	SC Duplex aqua	holes horizontal	black RAL9005
SB-FP-S-6SC-D-V-0M4	6	SC Duplex erica violet	holes horizontal	black RAL9005
SB-FP-S-6SC-D-V-OS2	6	SC Duplex blue	holes horizontal	black RAL9005
SB-FP-12SC-D-V-0M3	12	SC Duplex aqua	holes vertical	grey RAL7035
SB-FP-12SC-D-V-0M4	12	SC Duplex erica violet	holes vertical	grey RAL7035
SB-FP-12SC-D-V-OS2	12	SC Duplex blue	holes vertical	grey RAL7035
SB-FP-S-12SC-D-V-0M3	12	SC Duplex aqua	holes vertical	black RAL9005
SB-FP-S-12SC-D-V-0M4	12	SC Duplex erica violet	holes vertical	black RAL9005
SB-FP-S-12SC-D-V-0S2	12	SC Duplex blue	holes vertical	black RAL9005
SB-FP-24SC-D-V-OM3	24	SC Duplex aqua	holes vertical	grey RAL7035
SB-FP-24SC-D-V-0M4	24	SC Duplex erica violet	holes vertical	grey RAL7035
SB-FP-24SC-D-V-OS2	24	SC Duplex blue	holes vertical	grey RAL7035
SB-FP-S-24SC-D-V-0M3	24	SC Duplex aqua	holes vertical	black RAL9005
SB-FP-S-24SC-D-V-0M4	24	SC Duplex erica violet	holes vertical	black RAL9005
SB-FP-S-24SC-D-V-0S2	24	SC Duplex blue	holes vertical	black RAL9005





Equipped Front Panel with LC Duplex Adapter

ArtNo.	Number of ports	Suitable for adapter	Remark	Colour
SB-FP-6SC-S-OM3	6	LC duplex aqua	holes horizontal	grey RAL7035
SB-FP-6SC-S-0M4	6	LC duplex erica violet	holes horizontal	grey RAL7035
SB-FP-6SC-S-OS2	6	LC duplex blue	holes horizontal	grey RAL7035
SB-FP-S-6SC-S-0M3	6	LC duplex aqua	holes horizontal	black RAL9005
SB-FP-S-6SC-S-0M4	6	LC duplex erica violet	holes horizontal	black RAL9005
SB-FP-S-6SC-S-0S2	6	LC duplex blue	holes horizontal	black RAL9005
SB-FP-12SC-S-OM3	12	LC duplex aqua	holes vertical	grey RAL7035
SB-FP-12SC-S-0M4	12	LC duplex erica violet	holes vertical	grey RAL7035
SB-FP-12SC-S-OS2	12	LC duplex blue	holes vertical	grey RAL7035
SB-FP-S-12SC-S-OM3	12	LC duplex aqua	holes vertical	black RAL9005
SB-FP-S-12SC-S-0M4	12	LC duplex erica violet	holes vertical	black RAL9005
SB-FP-S-12SC-S-0S2	12	LC duplex blue	holes vertical	black RAL9005
SB-FP-24SC-S-OM3	24	LC duplex aqua	holes vertical	grey RAL7035
SB-FP-24SC-S-0M4	24	LC duplex erica violet	holes vertical	grey RAL7035
SB-FP-24SC-S-OS2	24	LC duplex blue	holes vertical	grey RAL7035
SB-FP-S-24SC-S-OM3	24	LC duplex aqua	holes vertical	black RAL9005
SB-FP-S-24SC-S-0M4	24	LC duplex erica violet	holes vertical	black RAL9005
SB-FP-S-24SC-S-0S2	24	LC duplex blue	holes vertical	black RAL9005



Wall Distributor Splice Housing, pre-assembled

Included:

Completely assembled wall distributor with adapters and coloured pigtails

1 or 2 x splice cassette inclusive cover

1 or 2 splice holder for each 12 crimp splices

Housing with two swivel doors, lockable

2 different locks each with 2 keys

On top and bottom each 2 cable entries for PG16 plus

2 cable entries with sealing strip Dimensions: 445 x 445 x 95 mm

Wall Distributor Splice Housing, pre-assembled, LC, Plastic adapter

ArtNo.	Fiber class	Fiber type	Adapter colour	With number of adapters	Pigtail	Colour
B79920.xx	OS2	Singlemode	green	12 - 24 - 48	24 - 48 - 96 x LC	grey
B79921.xx	OS2	Singlemode	blue	12 - 24 - 48	24 - 48 - 96 x LC	grey

Wall Distributor Splice Housing, pre-assembled, E2000®, Plastic adapter

ArtNo.	Fiber class	Fiber type	Adapter colour	With number of adapters	Pigtail	Colour
B79523.xx	OS2	Singlemode	blue	12 - 24 - 48	12 - 24 - 48 x E2000®	grey

Wall Distributor Splice Housing, pre-assembled, SC, Plastic adapter

ArtNo.	Fiber class	Fiber type	Adapter colour	With number of adapters	Pigtail	Colour
B79203.xx0M4	OM4	Multimode 50/125	erica-violet	12 - 24 - 48	24 - 48 - 96 x SC	grey
B79203.xx0M4	OM4	Multimode 50/125	erica-violet	12 - 24 - 48	24 - 48 - 96 x SC	grey

Wall Distributor Splice Housing, pre-assembled, ST, Metall adapter

ArtNo.	Fiber class	Fiber type	Adapter colour	With number of adapters	Pigtail	Colour
B79023.xx	0S2	Singlemode	metal	12 - 24 - 48	12 - 24 - 48 x ST	grey
B79006.xx0M4	0M4	Multimode 50/125	metal	12 - 24 - 48	12 - 24 - 48 x ST	grey
B79006.xx0M4	0M4	Multimode 50/125	metal	12 - 24 - 48	12 - 24 - 48 x ST	grey

Wall Distributor Splice Housing, pre-assembled, LC, Metall adapter

ArtNo.	Fiber class	Fiber type	Adapter colour	With number of adapters	Pigtail	Colour
B79922.xx	0S2	Singlemode	metal	12 - 24 - 48	24 - 48 - 96 x LC	grey
B79902.xx0M3	OM3	Multimode 50/125	metal	12 - 24 - 48	24 - 48 - 96 x LC	grey
B79902.xx0M3	OM3	Multimode 50/125	metal	12 - 24 - 48	24 - 48 - 96 x LC	grey

Note: xx set number of Pigtails. Preferred storage types see table.





Mini Wall Distributor, pre-assembled

Included:

Completely assembled wall distributor with adapters and coloured pigtails

1 or 2 x Splice cassette inclusive cover

1 or 2 x Spliceholder for 12 crimp splices Housing with cover, lockable, 2 keys

4 entries with sealing strip for incoming and outgoing cable

Dimensions: 280 x 320 x 54 mm

Mini Wall Distributor, pre-assembled, LC, Metall adapter

ArtNo.	Fiber class	Fiber type	Adapter colour	With number of adapters	With number of adapters	Colour
B78902.xx0M	4 OM4	Multimode 50/125	metal	6 - 12 - 24	12 - 24 - 48 x LC	grey
B78902.xx0M	3 OM3	Multimode 50/125	metal	6 - 12 - 24	12 - 24 - 48 x LC	grey

Mini Wall Distributor, pre-assembled, SC, Plastic adapter

ArtNo.	Fiber class	Fiber type	Adapter colour	With number of adapters	With number of adapters	Colour
B78203.xx0M4	0M4	Multimode 50/125	erica-violet	6 - 12 - 24	12 - 24 - 48 x SC	grey
B78203.xx0M3	OM3	Multimode 50/125	aqua	6 - 12 - 24	12 - 24 - 48 x SC	grey

Note: xx set number of Pigtails. Preferred storage types see table.

WALL DISTRIBUTOR AND MINI WALL DISTRIBUTOR COMPLETELY ASSEMBLED

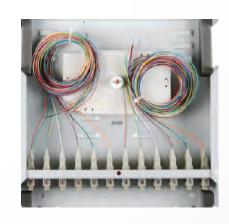


Colont code DIN ADE0888 Sharp Code DIN AD

Prepared assembly:

The wall distributors are fully equipped with feed-through adapters. The colour-coded pigtails are inserted into the feed-through adapters according to colour code DIN VDE0888 and the pigtails are neatly placed in the wall distribution box including the packaging with measured values.

The colour assignment of the pigtails during the splicing process is made easy by the solid-coloured primary coating (250 μ).







Wall Distributor Splice Housing RAL7035

Housing with two swivel doors, lockable
2 different locks each with 2 keys
with each 2 cable entries on top and bottom for PG16
2 further cable entries with sealing strip
Additional strain relief clamps and guiding clips for pigtails or cables for fixing with cable ties
Max. 5 splice cassettes and one mountable distribution plate
Fixing of distribution plate with two M3-screws and two quick locks
Steel sheet 1.5 mm
Weight 5.2 kg

Dimensions: 445 x 445 x 95 mm

ArtNo.	Description	
53604.1V1	Wall distribution, splice hou. W=445 x H=445 x D=95mm	

Accessory

ArtNo.	Description
53031.2	Distribution Plate, RAL 7035 48 SC/SC, for 53604.1V1
53604.4	Distribution Plate, RAL7035 24 SC/SC and splice box 2U
53604.3	Distribution Plate 48 SC-Simplex for 53604.1V1 and splice box 2U
53604.2	Distribution Plate, RAL7035 48 ST/ST and splice box 2U
53604.3V	Distribution Plate 48 SC-Simplex vertical for 53604.1V1 and splice box 2U
53031.2TS	Distribution Plate, RAL 9005 48 SC/SC, for 53604.1V1
53604.3VOB	Distribution Plate 48 SC-Simplex for 53604.1V1 and splice box 2U

Colour
grey





Compact Splice Distributor Set

Housing with swivel lid lockable, 2 keys

2 openings with dust-tight strips for incoming and outgoing cable for fixing with cable ties

For max. 4 splice cassettes or 1 splice cassette plus one distribution plate Steel sheet

Scope of delivery:

Housing with 2 keys

1 x distribution plate for 12 x ST

1 x distribution plate for 6 x SC-Duplex

Dimensions: 265 x 150 x 55 mm

ArtNo.	Description
53603.2	Distribution Plate, RAL7035 12 ST or FC (D-hole) Adapters
53603.3	Distribution Plate, RAL7035 6 SC dpx or 6 LC quad Adapters
53603.4	Distribution Plate, RAL7035 6 SC spx or 6 LC quad Adapters
53603.S	Spare lock for 53603.1, with 2 keys

ArtNo.	Description	Colour
53603.1	Compact splice dist. set RAL7035,W=265 x H=150 x D=55mm	grey
53603.1WS	Compact splice dist. set RAL9003,W=265 x H=150 x D=55mm	white

DISTRIBUTOR | SPLICE BOXES, DISTRIBUTORS, SUBRACKS & ACCESSORIES





Mini Wall Distributor, RAL7035

Housing with cover, lockable, 2 keys 4 openings with sealing strips for incoming and outgoing cable Strain relief via cable ties possible Mountable are max. 8 splice cassettes or 4 splice cassettes and one distribution plate Steel sheet 1.5 mm

Steel sheet 1.5 mm Weight: 2 kg Delivery unassembled

Scope of delivery: Housing with 2 keys 2 plastic rivets

Dimensions: 280 x 320 x 54 mm

ArtNo.	Description
53605.1	Mini Wall Distributor RAL7035

Accessory

ArtNo.	Description
53605.2	Distribution Plate, RAL7035 24 ST/ST, for 53605.1
53605.3	Distribution Plate, RAL7035 24 SC/SC, for 53605.1
53605.4	Distribution Plate, RAL7035 12 SC/SC, for 53605.1
53605.5	Distribution Plate, RAL7035 12 ST/ST, for 53605.1
53100.22	Spliceholder for 12 arc splices
53100.202	Splice Set Crimp
53100.203	Splice Set Heat shrink

Colour
arev





Industrial Splice Distributor with Metal Housing, unassembled

Fully assembled metal housing For DIN Rail mounting Cable entries top/bottom, prepared for M20 Delivery incl. screws for front panel

Included:

1 x splice distributor housing

1x splice cassette

1 x splice holder for 12 crimp splices (Attach of an optional additional splice holder only with double-sided adhesive tape)

1 x cable gland M20

1 x Alu DIN Rail clip

Delivery unassembled and without front panel

Dimensions: 61 x 115 x 113 mm

ArtNo.	Description	Colour
53705.1V3	Industrial Splice housing for DIN Rail without front panel RAL7035	arev

Accessory

•
ArtNo.
53705.2V2B
53705.3V2B
53705.4V2B
53705.5V2B
53705.2V2B2
53705.3V2B2
53705.4V2B2
53705.2V2B 53705.3V2B 53705.4V2B 53705.5V2B 53705.2V2B2 53705.3V2B2

SPLICE BOXES, DISTRIBUTORS, SUBRACKS & ACCESSORIES | DISTRIBUTOR



Micro Splice Distributor with Telecom - Splice Cassette

For spliced connection of fiber optic cables Suitable for wall mounting Duct installation or installation on DIN Rail possible with cable duct fixing set (53702.1)

Cable entries on top/bottom or at the rear Delivery unassembled

Scope of delivery:

1 x splice cassette

1 x splice holder crimp for 12 splices

2 x grommets

2 x cable ties

Art.-No. 53700.1V2

Dimensions: 160 x 110 x 30mm

Micro Splicebox with telecom splice cassette for 12 splices

Accessory

ArtNo.	Description
53702.1	Cable duct fixing set C-rail or DIN Rail mountable
53100.32	Crimp arc splice protection, Telekom approved, (min. PPU 30/ package 150pcs)
53100.32-150	Crimp arc splice protection, Telekom approved, 1 carton = 150 peaces (PPU)
FTTH-PIGTAIL-LC1	Fiber pigtail LC 9/125μ G657A2, yellow, 2m
00482.2	Fiber pigtail LC-APC 9/125μ 12er Set, coul., 2m OS2
03307.2	Fiber pigtail 12 set ST 50/125μ, 0M4, 2m

Colour
arev



Micro Splice Distributor for 4 Adapter with SC simplex hole

Plastic splice box including accessories:

1 x adapter plate for 4 x SC simplex adapters

1 x splice holder for 5 splices, 2 x cable clips

4 x cable grommets, 4 x cable ties

Wall-mounting or cable duct installation possible

2 cable entries (top/bottom) or 1 x through rear wall possible

For connection of optical fiber cable via splice or for max. 4 fibers via connector

Dimensions: 160 x 110 x 30 mm

A	ccessor	v

ArtNo.	Description
53702.1	Cable duct fixing set C-rail or DIN Rail mountable
53703.1	Splice holder for 5 splices for Micro-splice box
53343.32	Adapter LC/APC Duplex SM one piece, Shutter, green, ceramic sleeve, SC Simplex
53302.33	Adapter SC Simplex OM1/2 one piece, beige, ceramic sleeve
53334.1	Adapter LC Duplex OM4 one piece, erica violet, ceramic sleeve, SC Simplex
53350.31	Adapter LC Duplex SM one piece, blue, ceramic sleeve, SC Simplex
53302.31	Adapter SC Simplex SM one piece, blue, ceramic sleeve
53357.31	Adapter LC Duplex OM3 one piece, aqua, ceramic sleeve, SC Simplex
53334.10M5	Adapter LC Duplex OM5 one piece, lime green, ceramic sleeve, SC Simplex
FTTH-PIGTAIL-	Fiber pigtail SC/APC 9/125µ G657A2,12-coloured set, 2m
SCA12	
01015.2	Fiber pigtail SC-APC8° 9/125μ 12x Set coul., 2m, OS2

ArtNo.	Description	Colour
53701.1V2	Micro Splicebox for 4 adapters SC-Simplex and 5 crimp splices	grey





FO Mini Splice Distributor

With splice holder for 12 x crimp splice protections. Wall-, duct- or DIN Railinstallation (Clip + screw, please order separately). Housing and cover made of plastic. 2 openings for incoming and outgoing cable. Strain relief via 4 included cable ties possible. Weight ca. 30 g. delivery unassembled

Accessory

ArtNo.	Description
83030.2	DIN Rail holder, blank steel FM 4/TS35
81834.2	Screw M4 x 8mm for 83030.2 4.8 tinned DIN 7985

ArtNo.	Description
53704.1	FO mini splice distributor plastic

DISTRIBUTOR | SPLICE BOXES, DISTRIBUTORS, SUBRACKS & ACCESSORIES

Micro Splice Distributor Housing, unassembled

Wall-, cable duct- or DIN Rail mounting possible (clip + screw please order separately)

Plastic housing with holder for adapters:

2 x SC-Simplex, 2 x LC-Duplex, 2 x E2000*, 2 x FC, 2 x ST, 1 x SC-Duplex or 1 x LC-Quad

1 x cable entry with 5 holes 5 mm

1 x cable entry with 5 holes 3 mm

Holder for 4 x shrink splice protection

Pre-stamped outlines for fiber depot

Scope of delivery: 5×6 scope of delivery: 5×6 dowel and screws, 6×6 cable ties

Dimensions: 110 x 140 x 20 mm





ArtNo.	Description

53712.1

Small Splice distributor housing, IP20, RAL7035



FTTx compact junction box

FTTX compact junction box with dimensions 100 x 80 x 23 mm An adjustable fiber overlength cassette is mounted in the box for an easier work on cable inlets or connecting an adapter. The splice protection holder is also in the fiber overlength cassette. There are breakouts for 2 cable inlets in the box and also 2 breakouts for flangeless SC-Simplex or LC-Duplex adapters.

ArtNo.	Description
53700 2	FTTx compact junction hox, connection: 2x SC-Simplex/LC-Dunlex

Splice Distributor Housing Set IP66, RAL70335

IP66 Plastic housing RAL7035 Suitable for wall mounting

Included:

Distributor board for fixing of 3 splice cassettes or 2 splice cassettes (53100.200) and 1 mounting bracket

1 mounting bracket for 6 x SC duplex / LC quad adapters

1 mounting bracket for 12 x ST simplex / FC simplex adapters (D-hole)

Prepared cable entries for 2 x M16/M25 and 4 x M20/M32

Delivery unassembled

Dimensions: 255 x 180 x 100 mm

ArtNo.	Description
53710.1	Splice box housing IP66, grey



Micro Splice Distributor I Housing IP54

IP54 Plastic housing RAL7035 For 6 shrink splices Lockable cover

Included:

Metal installation board Holder for 6 shrink splices Chart label

1 x key

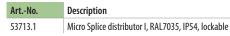
1 x PG13.5 gland

1 x PG9 gland

2 x dowel M8

2 x screws 2.9 x 9.5 mm

Dimensions: 103 x 185 x 100 mm





Micro Splice Distributor II Housing IP54

IP54 Plastic housing RAL7035 For 4 x SC simplex / LC duplex adapters Lockable cover

Included:

Metal bracket for adapters Splice cassette Chart label Holder for 6 shrink splices 1 x key

2 x PG16 gland

1 x PG9 gland

2 x dowel M8

2 x screws 2.9 x 9.5 mm

Delivery unassembled

Dimensions: 103 x 185 x 93 mm

ArtNo.	Description
53714.1	Micro Splice distributor II IP54, RAL7035



Splice Distributor Housing IP54

IP54 Plastic housing RAL7035 Suitable for wall mounting Lockable cover (screw) with 3.5 mm hole for sealing

Included:

Basic module plate for fixing one splice cassette and one mounting bracket Splice cassette with cover

. Mounting bracket with 24 LC duplex / SC simplex / E2000® simplex mounting holes

Mounting bracket with 6 x SC duplex / LC quad mounting holes Mounting bracket for 12 x ST simplex / FC simplex holes

3 x PG13.5 cable glands

4 x fixing screws for wall-mounting

Dimensions: 190 x 375 x 115 mm

ArtNo.	Description
53720.1	IP54 Splice housing set with wide range of accessories



DATA OUTLETS | SPLICE BOXES, DISTRIBUTORS, SUBRACKS & ACCESSORIES

Multi System Fiber Optic - Outlet

The fiber optic junction box offers multifunctional properties and is suitable for all common types of fiber optic connectors. The zinc die-cast junction box is supplied with plastic adapter plates that can be fitted with the various fiber optic adapters. Fiber optic adapters with a 35° inclination can be inserted into the adapter plates supplied in the following assembly variants.

2xST, 1xSC Duplex, 2xSC Duplex, 2xMTRJ, 3xMTRJ, 2xMTRJ (AMP) or 2x LC Duplex.

The fiber optic junction box has a standard-compliant 50×50 mm plastic central plate with printed laser symbol and is suitable for installation in ducts and underfloor systems, as well as for flush and surface mounting.

Clip and screw locking of the adapter plates Delivery Incl. 9 **unassembled** adapter plates For SC-simplex, SC-duplex, E2000®-simplex, MTRJ, AMP/MTRJ, ST, FC, DIN, LC-duplex and a blanking plate

ArtNo.	Description	Colour
ET-25170	FO Outlet Multi System RAL 9010	white



Accessory

ArtNo.	Description
ET-25074V2	Surface mount frame, RAL 1013
ET-25084V3	Surface frame RAL9010
ET-25081	Cover plate RAL9010
53343.31	Adapter LC/APC Duplex SM one piece, green, ceramic sleeve, SC Simplex
53353.31	Adapter LC/APC Quad SM one piece, green, ceramic sleeve, SC Duplex
53316.35	Adapter SC/APC Duplex SM one piece, green, ceramic sleeve
53316.3	Adapter SC Duplex SM one piece, blue, ceramic sleeve

Colour
white

Fiber Optic Frame Set

For holding 2 adapters 2 Ports for E2000°simplex, SC simplex or LC duplex 40° slanted outlet Outer ring 80 x 80 mm and central plate 50x50mm with labeling field 12 x 40 mm according to **DIN49075** Compatible to common switch programs with adapter plate

Included:

1 x metal frame

1 x plastic cover

1 x plastic central plate

Delivery unassembled

4 x M2-screws

ArtNo.	Description	Colour
ET-25085F0	F0 Frame Set 2x E2000°, SC-Simplex, LC-Duplex, RAL9010	white





FO outlet UP, 2 LC-D adapter OS2

Fiber optical flush-mounted data outlet to accommodate 2 SC-Simplex adapter or 2 LC-Duplex adapter. The data outlet is equipped with adapters in the classes OM3, OM4 or OS2 including shutter. The highlight of this flush-mounted data outlet is, that it not only has an integrated receptacle for excess fiber lengths, but also has a receptacle for splice protection (4x crimp or 4x shrink). Depending on the application, the holder can also be dismantled so that it does not get in the way when pre-assembled cables are installed.

Performance features:

Horizontal and vertical installation in the cable duct or flush mounting Recording of fiber overlengths

Integrated splice protection for 4 splices

Cover 80 mm x 80 mm

Data outlet depth of 40 mm for installation in flush-mounted boxes or cavity wall boxes









ArtNo.	Description	Colour
FTTH-OUTLET-LC-OS2	FO data outlet UP, 2 LC-D adapter OS2 with shutter, integrated splice holder	white
FTTH-OUTLET-LC-SMAPC	FO data outlet UP, 2 LC-D adapter OS2 APC with shutter, integrated splice holder	white
FTTH-OUTLET-LC-OM4	FO data outlet UP, 2 LC-D adapter OM4 with shutter, integrated splice holder	white
FTTH-OUTLET-LC-OM3	FO data outlet UP, 2 LC-D adapter OM3 with shutter, integrated splice holder	white
FTTH-OUTLET-SC-OS2	FO data outlet UP, 2 SC-S adapter OS2 with shutter, integrated splice holder	white
FTTH-OUTLET-SC-SMAPC	FO data outlet UP, 2 SC-S adapter OS2 APC with shutter, integrated splice holder	white
FTTH-OUTLET-SC-OM4	FO data outlet UP, 2 SC-S adapter OM4 with shutter, integrated splice holder	white
FTTH-OUTLET-SC-OM3	FO data outlet UP, 2 SC-S adapter OM3 with shutter, integrated splice holder	white



Splice Cassette

- For 2 x 12 crimp splice holders (max. 24 arc splices)
- For 2 x 6 shrink splice holders (max. 12 arc splices)
- Stackable
- Dimensions (W) x (H) x (D) 155 x 8 x 92 mm

ArtNo.	Description
53100.200	Splice cassette w/o logo white
53100.201	Splice cassette cover, white

Accessory

ArtNo.	Description
53100.6	Strain relief (fitted in the splice cassette 53100.200)
53100.7	Splice holder for 6 x arc splices with shrink tube, white
53100.8	Splice holder for 6 x arc splices with shrink tube, black
53100.21	Spliceholder for 12 arc splices



Splice Holder for Thermo Splice Protection

Splice Holder for 6 x Arc Splices with Shrink Tube

ArtNo.	Description
53100.8	Splice holder for 6 x arc splices with shrink tube, black



Splice Set Heat Shrink

Complete Set for assembling splice boxes, distributor or wall cabinets

The Set contains:

1x splice cassette for 2 splice holder

1x cover with symbol "attention laser"

1x splice holder

6x splice protection (heat shrink tube)

2x cable tie

1x spiral coiled tube

ArtNo.	Description
53100.203	Splice Set Heat shrink



Strain relief for FO single fiber

Strain-relief (for mounting on splice cassette 53100.200)

ArtNo.	Description
53100.6	Strain relief (fit in splice cassette 53100.200)

Accessory

ArtNo.	Description
VSB-A-GR	Splice box sliding version 1U without front panel, unequipped, grey
VSB-A-SW	Splice box sliding version 1U without front panel, unequipped, black
53100.202	Splice Set Crimp
53100.203	Splice Set Heat shrink



Splice Holder for Crimp Arc Splices

Splice Holder for 12 x Arc Splices Crimp

ArtNo.	Description
53100.21	Spliceholder for 12 arc splices
53100.22	Spliceholder for 12 arc splices



Splice Set Crimp

Complete Set for assembling splice boxes, distributor or wall cabinets

The Set contains:

1x splice cassette for 2 splice holder

1x cover with symbol "attention laser"

1x splice holder

12x splice protection (crimp splice protection)

2x cable tie

1x spiral coiled tube

ArtNo.	Description
53100.202	Splice Set Crimp



Splice Cassette PRO

ArtNo.	Description
53100.10	Splice cassette Pro incl. holders for 2x12 crimp splices
53100.110	Cover for splice cassette 53100.10



Crimptool for crimp splice protection incl. 12 pcs. of crimp splice protection

Plastic Crimptool for multiple use 12 pieces of crimp splice protection in the set

Art.	-No.	Description
5310	0.5	crimptool for crimp splice protection incl. 12 pcs. of crimp splice protection



Crimp arc splice protection, Telekom approved

Crimp splice protector for arc splices

Telekom approved

Ordering info

53100.32: Price per splice protector - smallest order unit: 30 53100.32-150: Price per 150 splice protectors - smallest order unit: 1

ArtNo.	Description
53100.32	Crimp arc splice protection, Telekom approved, (min. PPU 30/ package 150pcs)
53100.32-150	Crimp arc splice protection, Telekom approved, 1 carton $= 150$ peaces (PPU)

Accessory

ArtNo.	Description
VSB-A-GR	Splice box sliding version 1U without front panel, unequipped, grey
VSB-A-SW	Splice box sliding version 1U without front panel, unequipped, black



Crimp Spliceprotection(ANT)

Crimp splice protector for arc splices

Description

Ordering info

53100.3: Price per splice protector - smallest order unit: 15

53100.3 Crimp splice protector for arc splices, (min. PPU 15/ package 150pcs)		Crimp splice protector for arc splices, (min. PPU 15/ package 150pcs)
Accessory		
	ArtNo.	Description
	VSB-A-GR	Splice box sliding version 1U without front panel, unequipped, grey
	VSR-A-SW	Splice hox sliding version 111 without front panel unequipped black





Shrink-Splice-Protection for Arc splices

Shrink splice protection to protect the splice from damage and environmental influences

Storage in lockable box

Metal bolt for bend protection integrated

Min. shrink temperature : $120^{\circ}C$

PPU: 100

ArtNo.	Description
53100.9-100	Splice Heat Shrink, transparent, length: 60mm, PU 100
53100.91-100	Splice Heat Shrink, transparent, length: 45mm, PU 100

Accessory

ArtNo.	Description
VSB-A-SW	Splice box sliding version 1U without front panel, unequipped, black
VSB-A-GR	Splice box sliding version 1U without front panel, unequipped, grey
53100.200	Splice cassette w/o logo white



Cable Glands

Seperable cable gland + nut M20, 17 mm inner diameter

ArtNo. Description	
53010.5	PG16 Cable Glands conical grey, RAL7035
53012.1	M20 Cable Glands grey, RAL7035



Dust Covers for Front- and Distribution- plates

Dust cover for unused Ports

ArtNo.	Description
53025.1-100	Dust cover plastic black, for ST /FC (D-hole), PU 100
53026.1-100	Dust cover plastic black for E2000°/SC simplex/LC-Duplex, PU 100
53028.1-100	Dust cover plastic black SC duplex/LC quad/ST duplex, PU 100



Pan head sleeve nut

Pan head sleeve nut with slot, M4x14 If using 4 splice cassettes in a 1 U splicebox SB-A-GR, SB-A-SW, VSB-A-GR, VSB-A-SW

ArtNo.	Description
80555.1	Pan head sleeve nut, M4x14, (splicebox)

Accessory

ArtNo.	Description	
53100.200	Splice cassette w/o Logo white	
53100.202	Splice Set Crimp	
53100.203	Splice Set Heat shrink	
VSB-A-SW	Splice box sliding version 1U without front panel, unequipped, black	
VSB-A-GR	Splice box sliding version 1U without front panel, unequipped, grey	



Self-tapping screw

Self-tapping screw

ArtNo.	Description
80550.1-50	Tapping screw ST2,5 50 pieces DIN7971
80550.1-100	Tapping screw ST2,5 100 pieces DIN7971



Quick release nylon white

For mounting in distribution panel 53605.x with mini wall distributor 53605.1.

ArtNo.	Description
53697.1	Quick release nylon, white, for distribution plates in 53605.1





19" Subrack

19"/3U subrack with 84DU

Additional integrated 1U cable overlength box Total height: 4U

4U aluminium side walls for installation in 19" rack 84DU depth adjustable subrack with 1DU splitting (1DU=5,08mm) Cable overlength box to the back/front sliding unit Front mounted cable routing panel with 5 cable brackets

Delivery unequipped

Scope of delivery: 1 x subrack mounted 1 x PG16 cable gland incl. locknut 5 x cable brackets

Dimensions: 483 x 178 x 295 mm



Accessory

ArtNo.	Description	
53711.10 Blind plate 3HE/7TE Alu anodised with set of screws		
53711.11	Cable bracket-Set (5pc.) 1U, radius R30, H=56mm	
53711.21	Blind plate 3HE/14TE Alu anodised with set of screws	
53711.30	Labeling bar Alu, self-adhesive L=100mm	
53711.31	Paper strips for labeling bar Alu, L=100mm	
53711.32	Film strips for labeling bar Alu, L=100mm	

ArtNo.	Description	max. Modules	Colour
AIL III.	Description	max. modules	Coloui
53711.1	Subrack 4U 84TE/3U Incl. 1U Cable Overlength Box	12	alu/metal

SUBRACKS | SPLICE BOXES, DISTRIBUTORS, SUBRACKS & ACCESSORIES



Fully equipped plug-in module with adapters and pigtails For installation in 19 "subracks 53711.1 and 53733.1 3U/7DU 1x splice cassette including cover 12 pigtails with 1x splice holder (12 x crimp) 24 pigtails with 2x splice holder (12 x crimp) Overlength cassette Labelling strip

${\bf Plug\text{-}In\ Module\ 3U/7DU,\ LC\text{-}Duplex\ adapters}$



ArtNo.	Description	Number of adapter	Adapter	APC	Fiber type
B88924.12	Plug-In Module 3U/7DU, 9/125μ OS2, 6x LC Duplex APC green	6	LC duplex	Yes	0S2
B88921.12	Plug-In Module 3U/7DU, 9/125μ OS2, 6x LC Duplex blue	6	LC duplex	No	0S2
B88922.12	Plug-In Module 3U/7DU, 9/125μ OS2, 6x LC Duplex metal	6	LC duplex	No	0S2
B88901.120M4	Plug-In Module 3U/7DU, 50/125μ OM4, 6x LC Duplex erica-violet	6	LC duplex	No	0M4
B88901.120M3	Plug-In Module 3U/7DU, 50/125μ OM3, 6x LC Duplex aqua	6	LC duplex	No	0M3
B88902.120M3	Plug-In Module 3U/7DU, 50/125μ OM3, 6x LC Duplex metal	6	LC duplex	No	0M3
B88902.12	Plug-In Module 3U/7DU, 50/125μ OM2, 6x LC Duplex metall	6	LC duplex	No	0M2

Plug-In Module 3U/7DU LC-Quad adapters



ArtNo.	Description	Number of adapter	Adapter	APC	Fiber type
B88206.24	Plug-In Module 3U/7DU, 9/125μ OS2, 6x LC/APC Quad green	6	LC quad	Yes	0S2
B88925.12	Plug-In Module 3U/7DU, 9/125μ OS2, 3x LC Quad blue	3	LC quad	No	0S2
B88925.24	Plug-In Module 3U/7DU, 9/125μ OS2, 6x LC Quad blue	6	LC quad	No	0S2
B88905.120M3	88905.120M3 Plug-In Module 3U/7DU, 50/125µ OM3, 3x LC Quad aqua		LC quad	No	OM3
B88905.240M3	Plug-In Module 3U/7DU, 50/125u OM3, 6x LC Quad agua	6	LC guad	No	OM3

Plug-In Module 3U/7DU SC-Duplex adapters



ArtNo.	Description	Number of adapter	Adapter	APC	Fiber type
B88223.12	Plug-In Module 3U/7DU, 9/125μ OS2, 6x SC Duplex blue	6	SC duplex	No	0S2
B88226.12	Plug-In Module 3U/7DU, 9/125μ OS2, 6x SC/APC Duplex metal	6	SC duplex	Yes	0S2
B88228.12	Plug-In Module 3U/7DU, 9/125μ OS2, 6x SC/APC Duplex green	6	SC duplex	Yes	0S2
B88203.120M4	Plug-In Module 3U/7DU, 50/125μ OM4, 6x SC Duplex erica-violet	6	SC duplex	No	0M4
B88203.120M3	Plug-In Module 3U/7DU, 50/125μ OM3, 6x SC Duplex aqua	6	SC duplex	No	0M3
B88203.12	Plug-In Module 3U/7DU, 50/125μ OM2, 6x SC Duplex beige	6	SC duplex	No	0M2

Plug-In Module 3U/7DU SC-Simplex adapters

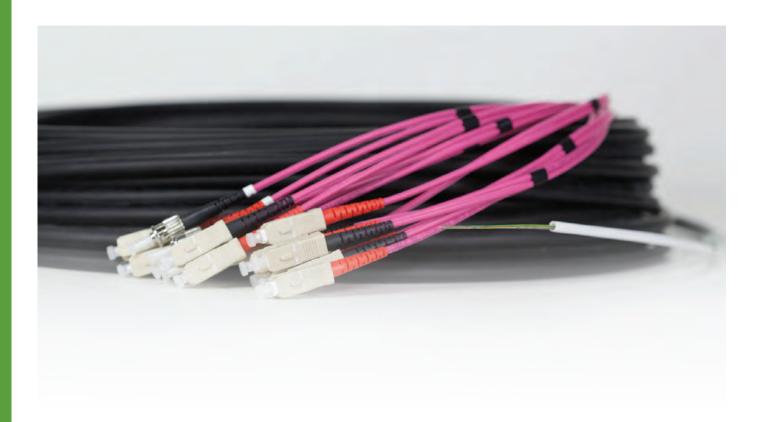


ArtNo.	Description	Number of adapter	Adapter	APC	Fibter type
B88224.12	Plug-In Module 3U/7DU, 9/125μ OS2, 6x SC Simplex blue	12	SC simplex	No	0S2
B88403.120M4	B88403.120M4 Plug-In Module 3U/7DU, 50/125μ 0M4, 12x SC Simplex beige		SC simplex	No	0M4
B88403.120M3	Plug-In Module 3U/7DU, 50/125μ OM3, 12x SC Simplex beige	12	SC simplex	No	OM3

Plug-In Module 3U/7DU E2000® adapters



ArtNo.	Description	Number of adapter	Adapter	APC	Fiber type
B88523.12	Plug-In Module 3U/7DU, 9/125μ OS2, 12x E2000® blue	12	E2000®	No	0S2
B88533.12	Plug-In Module 3U/7DU, 9/125μ OS2, 12x E2000®/APC green	12	E2000®	Yes	0S2
B88503.120M4	Plug-In Module 3U/7DU, 50/125μ 0M4, 12x E2000® beige	12	E2000®	No	OM4
B88503.120M3	388503.120M3 Plug-In Module 3U/7DU, 50/125μ 0M3, 12x E2000° beige		E2000®	No	OM3
B88503.12	Plug-In Module 3U/7DU, 50/125μ 0M2, 12x E2000® beige	12	E2000®	No	OM2



FIBER OPTIC INSTALLATION CABLE

Universal cable B2ca	P. 63
Universal cable	P. 64
Outdoor cable	P. 66 - 67
Indoor cable	P. 68
FTTH cable	P. 69

// YOU MAY ALSO BE INTERESTED IN:

Splice Boxes	P. 42 - 47
Splicing- & Measurement Equipment	P. 104
Closures	P. 34
Accessory (Splice Cassette, Splice Protection)	P. 59
Adapters	P. 92 - 94
Cleaning Tools	P. 96





Application:

For fixed installation indoor and outdoor

In cable ducts, tubes and interconnections

Mechanical installation by winch is permitted only when using force meters with recording function

Not suitable for underground laying (direct buried)

Characteristics:

Universale cable Suitable for connector assembly

The cable diameter can vary

Temperature Range (Operation): see table Temperature Range (Storage): -40 – 80 °C Temperature Range (Installation): -5 – 60 °C



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INFRALAN® U-DQ(ZN)BH 9/125µ, G657A1 B2ca

ArtNo.	Construct	Cable Ø	Bending radius	Colour outer sheath	Tensile Force	Temperature Range (Operation)	Euroclass
54408.3LOS2-CPR	08E (1 x 8) Singlemode G.657.A1	11.2 mm	170 mm	black	5000 N	-40 – 80 °C	B2ca
54412.3L0S2-CPR	12E (1 x 12) Singlemode G.657.A1	11.2 mm	170 mm	black	5000 N	-40 – 80 °C	B2ca
54424.3LOS2-CPR	24E (2 x 12) Singlemode G.657.A1	11.2 mm	170 mm	black	5000 N	-40 − 80 °C	B2ca
54448.3L0S2-CPR	48E (4 x 12) Singlemode G.657.A1	11.2 mm	170 mm	black	5000 N	-40 – 80 °C	B2ca

INFRALAN® U-DO(ZN)BH 50/125u, 0M4 B2ca

11411	INTINEAR O DOLERIDII 30/123µ, ONIT DZCO								
Art	No.	Construct	Cable Ø	Bending radius	Colour outer sheath	Tensile Force	Temperature Range (Operation)	Euroclass	
5440	8.3LOM4-CPR	8G (1 x 8) Multimode 0M4	11.2 mm	170 mm	black	5000 N	-40 – 80 °C	B2ca	
5441	2.3LOM4-CPR	12G (1 x 12) Multimode 0M4	11.2 mm	170 mm	black	5000 N	-40 – 80 °C	B2ca	
5442	4.3L0M4-CPR	24G (2 x 12) Multimode 0M4	11.2 mm	170 mm	black	5000 N	-40 – 80 °C	B2ca	
5444	8.3LOM4-CPR	48G (4 x 12) Multimode 0M4	11.2 mm	170 mm	black	5000 N	-40 – 80 °C	B2ca	

INFRALAN® II-DO(7N)RH 50/125u, OM3 R2ca

INIT MALANI O'DQ(ZN)DIT 30/123µ, ONIS DZCA										
ArtNo.	Construct	Cable Ø	Bending radius	Colour outer sheath	Tensile Force	Temperature Range (Operation)	Euroclass			
54408.3LOM3-CPF	8G (1 x 8) Multimode 0M3	11.2 mm	170 mm	black	5000 N	-40 – 80 °C	B2ca			
54412.3LOM3-CPF	12G (1 x 12) Multimode 0M3	11.2 mm	170 mm	black	5000 N	-40 – 80 °C	B2ca			
54424.3LOM3-CPF	24G (2 x 12) Multimode 0M3	11.2 mm	170 mm	black	5000 N	-40 – 80 °C	B2ca			
54448.3LOM3-CPF	48G (4 x 12) Multimode 0M3	11.2 mm	170 mm	black	5000 N	-40 – 80 °C	B2ca			

	Building classes according to t	he MBO	Fire clas	Fire classes	
Class	Description		Minimum requ	uirement	
			Building (except escape route)	Escape Routes	
S1	high-rise buildings	exceeding 22 m	C _a s1 d2 a1	B2 _a s1 d1 a1	
S2	construction works	exceeding 30 m	C _a s1 d2 a1	B2 _a s1 d1 a1	
\$3	buildings	with the largest floorspace of 1600 m², except for residential buildings and garages	C _{ca} s1 d2 a1	B2 _{ca} s1 d1 a1	
S4	sales outlets	exceeding 800m ²	C _{ca} s1 d2 a1	B2 _{ca} s1 d1 a1	
S5	office/ administration	rooms exceeding 400 m ²	C _{ca} s1 d2 a1	B2 _{ca} s1 d1 a1	
S6	buildings with single rooms	single rooms can be used with more than 100 persons	C _{ca} s1 d2 a1	B2 _{ca} s1 d1 a1	
S7	places of assembly	more than 200 persons	C _{ca} s1 d2 a1	B2 _{ca} s1 d1 a1	
S8	restaurants/ hotels	for more than 40 guests in buildings, more than 12 beds, casinos more than 150 m²	C _{ca} s1 d2 a1	B2 _{ca} s1 d1 a1	
S9	9 buildings with functional units provided for care or assistance dependent people	more than 6 persons, need for intensive care	B2 _{ca} s1 d1 a1	B2 _{ca} s1 d1 a1	
S10	hospitals		B2 _{ca} s1 d1 a1	B2 _{ca} s1 d1 a1	
S11	other facilities for accommodating people like residences		C _{ca} s1 d2 a1	B2 _{ca} s1 d1 a1	
S12	day-care facilities for children, disabled people and elderly		B2 _{ca} s1 d1 a1	B2 _{ca} s1 d1 a1	
S13	schools, universities or similar facilities		C _{ca} s1 d2 a1	B2 _{ca} s1 d1 a1	
S14	penal institution and contruction works for psychiatric hospital treatments		C _{ca} s1 d2 a1	B2 _{ca} s1 d1 a1	
S16	leisure/ amusement parks		C _{ca} s1 d2 a1	B2 _{ca} s1 d1 a1	
S18	warehouse shelves with top of the load higher exceeding 7.5 m		E _{ca}	B2 _{ca} s1 d1 a1	
S19	construction works for storafe of substances witht increased fire hazard		B2 _{ca} s1 d1 a1	B2 _{ca} s1 d1 a1	
	Instustry		C _{ca} s1 d2 a1	B2 _{ca} s1 d1 a1	
	server rooms		B2 _{ca} s1 d1 a1	B2 _{ca} s1 d1 a1	
	road tunnels		B2 _{ca} s1 d1 a1	B2 _{ca} s1 d1 a1	
	rail tunnels		B2 _{ca} s1 d1 a1	B2 _{ca} s1 d1 a1	
	underground parking		C _{ca} s1 d2 a1	B2 _{ca} s1 d1 a1	

Source: ZVEI: Die Elektroindustrie – Brandschutzkabel erhöhen die Sicherheit vom 12.10.2016







Application:

For fixed installation indoor and outdoor In cable ducts, tubes and interconnections Mechanical installation by winch is permitted only when using force meters with recording function

Not suitable for underground laying (direct buried)

Characteristics:

Universal cable Longitudinally waterproof Non-metallic, halogen-free, rodent protection suitable for connector assembly

Outer Jacket:

Euro Flame resistance class: see table Halogen-free and flame-retardant material (FRNC)

Standards:

Harmonised Standard: EN 50575

Flame retardant: IEC 60332-3-24 and IEC 60332-1-2

Halogen-free: IEC 60754-1

Acidity of the combustion gases: IEC 60754-2

Low smoke: IEC 61034

No resistance to oil, petrol, acid and leach

The cable diameter can vary

Temperature Range (Operation): see table
Temperature Range (Storage): -40 – 80 °C

Temperature Range (Installation): -20 – 60 °C

U-DQ(ZN)BH 9/125µ G657A1



ArtNo.	Construct	Cable Ø	Bending radius	Colour outer sheath	Tensile Force	Temperature Range (Operation)	Euroclass
54404.1L-CPR	04E (1 x 4) Singlemode G.657.A1	7.0 mm	140 mm	black	1750 N	-20 – 60 °C	Dca
54408.1L-CPR	08E (1 x 8) Singlemode G.657.A1	7.0 mm	140 mm	black	1750 N	-20 – 60 °C	Dca
54412.1L-CPR	12E (1 x 12) Singlemode G.657.A1	7.0 mm	140 mm	black	1750 N	-20 – 60 °C	Dca
54424.1L-CPR	24E (1 x 24) Singlemode G.657.A1	7.5 mm	150 mm	black	1750 N	-20 – 60 °C	Dca
54448.1L-CPR	48E (4 x 12) Singlemode G.657.A1	11.2 mm	170 mm	black	5000 N	-40 – 80 °C	Eca
54496.1L-CPR	96E (8 x 12) Singlemode G.657.A1	13.1 mm	200 mm	black	5000 N	-40 – 80 °C	Eca
544144.1L	144E (12 x 12) Singlemode G.657.A1	16,0 mm	240 mm	black	5000 N	-40 − 80 °C	Eca

U-DQ(ZN)BH 50/125μ OM5



ArtNo.	Construct	Cable Ø	Bending radius	Colour outer sheath	Tensile Force	Temperature Range (Operation)	Euroclass
54504.10M5-CPR	4G (1 x 4) Multimode 0M5	7.0 mm	140 mm	black	1750 N	-20 – 60 °C	Dca
54512.10M5-CPR	12G (1 x 12) Multimode 0M5	7.0 mm	140 mm	black	1750 N	-20 – 60 °C	Dca
54524.10M5-CPR	24G (1 x 24) Multimode 0M5	7.5 mm	150 mm	black	1750 N	-20 – 60 °C	Dca

U-DQ(ZN)BH 50/125μ OM4



ArtNo.	Construct	Cable Ø	Bending radius	Colour outer sheath	Tensile Force	Temperature Range (Operation)	Euroclass
54504.2L-CPR	4G (1 x 4) Multimode 0M4	7.0 mm	140 mm	black	1750 N	-20 – 60 °C	Dca
54508.2L-CPR	8G (1 x 8) Multimode 0M4	7.0 mm	140 mm	black	1750 N	-20 – 60 °C	Dca
54512.2L-CPR	12G (1 x 12) Multimode 0M4	7.0 mm	140 mm	black	1750 N	-20 - 60 °C	Dca
54524.2L-CPR	24G (1 x 24) Multimode 0M4	7.5 mm	150 mm	black	1750 N	-20 − 60 °C	Dca
54548.2L-CPR	48G (4 x 12) Multimode OM4	11.2 mm	170 mm	black	5000 N	-40 – 80 °C	Eca

U-DQ(ZN)BH 50/125μ OM3



ArtNo.	Construct	Cable Ø	Bending radius	Colour outer sheath	Tensile Force	Temperature Range (Operation)	Euroclass
54504.1L-CPR	4G (1x4) Multimode 0M3	7.0 mm	140 mm	black	1750 N	-20 – 60 °C	Dca
54508.1L-CPR	8G (1 x 8) Multimode 0M3	7.0 mm	140 mm	black	1750 N	-20 – 60 °C	Dca
54512.1L-CPR	12G (1 x 12) Multimode 0M3	7.0 mm	140 mm	black	1750 N	-20 – 60 °C	Dca
54524.1L-CPR	24G (1 x 24) Multimode 0M3	7.5 mm	150 mm	black	1750 N	-20 − 60 °C	Dca
54548.1L-CPR	48G (4 x 12) Multimode 0M3	11.2 mm	170 mm	black	5000 N	-40 − 80 °C	Eca

U-DQ(ZN)BH 50/125μ OM2



ArtNo.	Construct	Cable Ø	Bending radius	Colour outer sheath	Tensile Force	Temperature Range (Operation)	Euroclass
54204.1L-CPR	4G (1x4) Multimode 0M2	7,0 mm	140 mm	black	1750 N	-20 – 60 °C	Dca
54208.1L-CPR	8G (1 x 8) Multimode 0M2	7,0 mm	140 mm	black	1750 N	-20 – 60 °C	Dca
54212.1L-CPR	12G (1 x 12) Multimode 0M2	7,0 mm	140 mm	black	1750 N	-20 – 60 °C	Dca
54224.1L-CPR	24G (1 x 24) Multimode 0M2	7,5 mm	150 mm	black	1750 N	-20 − 60 °C	Dca
54248.1L-CPR	48G (4 x 12) Multimode 0M2	11,2 mm	170 mm	black	5000 N	-40 − 80 °C	Eca

CABLE CODES & CLASSIFICATIONS



OM-Classification ISO/IEC 11801	I-Classification ISO/IEC 11801			OM3	OM4	OM5
Min model handwidth with according large (MII-*Ima)	850 nm	200	500	1500	3500	4700
Min. modal bandwidth with overfilled launch [MHz*km]	1300 nm	500	500	500	500	2470
Min. modal bandwidth EMB (effective laser bandwidth) [MHz*km]	n/s	n/s	2000	4700	n/s	
Association [dD/lm]	1300 nm	1.5	1.5	1.5	1.5	1,5
Attenuation[dB/km]	850 nm	3.5	3.5	3.5	3.5	3,5

Fiber Crede	Cava/Cladding	Attenuation[dB/km]		Gigabit	Gigabit	10Gigabit	25 Gigabit	40 Gigabit	100 Gigabit
Fiber Grade	Core/Cladding	1300nm	850nm	1000BaseSX	1000BaseLX	10GBaseSR	25GBaseSR	40GBaseSR4	100GBaseSR4
0M1	62.5/125µ	1.5	3.5	275 m	550 m	ca. 30 m	-	-	-
0M2	50/125µ	1.5	3.5	550 m	550 m	ca. 80 m	-	-	-
0M3	50/125µ	1.5	3.5	1000 m	550 m	300 m	70 m	100 m	70 m
0M4	50/125μ	1.5	3.5	>1000 m	550 m	550 m	100 m	150 m	100 m
OM5	50/125μ	1,5	3,5	>1000 m	550 m	550 m	440 m	150 m	150 m

BLP = Modal Bandwidth

Number	Parameters	Abbreviation	Property
1	Cable type	I	Indoor cable
		Α	Outdoor cable
		AT	Breakout cable
2	Fiber protection	F	Fiber with 250 µm buffer
		V	Full core, i.e. F with 900 μm buffer
		Н	Hollow core, one fiber dry
		W	Hollow core filled with GEL
		В	Bundled core, many fibers dry
		D	Bundled core filled with GEL
3	Central element	S	Metal strand as cable core
4	Cable filling	F	Hollow core filled with GEL
5	Outer jacket	Н	Halogen-free material
	-	Υ	PVC (polyvinyl chloride)
		2Y	PE (poly ethylene)
		(L)2Y	Sheath with PE
		(D)2Y	PE with plastic barrier layer
		(ZN)2Y	PE with non-metallic strain relief
		(BN)2Y	PE with non-metallic glas-fiber yarn armouring
		4Y	PA (rodent-proof polyamide)
		11Y	PUR (polyurethane, elastic, chemically resistant)
6	Armouring	В	Armouring, general
		BY	Armouring plus PVC protective sheath
		B2Y	Armouring plus PE protective sheath
		Q	Swelling fleece wrap
7	Number of fibers	e.g.: 6	6 full cores or cable
		4 x 6	4 bundle cores, each with 6 fibers
8	Fiber Type	E	Single-mode fiber (Single-mode)
		G	Gradient index fiber (Multi-mode)
		S	Step index fiber, glass/glass
		K	Step index fiber, glass/plastic
		Р	Plastic fiber
9	Fiber core	μm	e.g.: 9, 50 or 62.5
10	Fiber jacket	μm	e.g.: 125
11	Attenuation	dB/km	at the wavelength of No. 12
12	Wavelength	В	850 nm
		F	1300 nm (MM) and 1310 nm (SM)
		Н	1550 nm
13	Dispersion	MHz x km	Bandwidth on multimode fibers
		ns/km	with single-mode also ps/nm/km
14	Special types	LG	Layer stranding of the cable
		SZ	SZ stranding of the cable





For fixed installation outdoor In cable ducts, tubes and interconnections Primary cabling (Campus), Backbone



Characteristics:

PE-Jacket black, metall-free, longitudinal waterproof, halogen-free UV-restistant, rodent restistant Restistant to oil, petrol, acid and leach Central/Loose tubes, 250µm-coating

Standards:

Longitudinal waterproof: IEC 60794-1-2 Transmission specifications: IEC 60793 Cabling: ISO/IEC 11801, EN 50173

The cable diameter can vary

Temperature Range (Operation): see table Temperature Range (Storage): -40 – 70 °C

Temperature Range (Installation): -15 – 50 °C

Outdoor Cable A-DQ (ZN)B2Y SM G657.A1

ArtNo.	Construct	Cable Ø	Bending radius	Colour outer sheath	Tensile Force	Temperature Range (Operation)
55404.1	04E (1 x 4) Singlemode G.657.A1	7.1 mm	140 mm	black	1750 N	-25 – 60 °C
55408.1	08E (1 x 8) Singlemode G.657.A1	7.1 mm	140 mm	black	1750 N	-25 − 60 °C
55412.1	12E (1 x 12) Singlemode G.657.A1	7.1 mm	140 mm	black	1750 N	-25 – 60 °C
55424.1	24E (1 x 24) Singlemode G.657.A1	7.3 mm	150 mm	black	1750 N	-25 – 60 °C
55448.1	48E (4 x 12) Singlemode G.657.A1	11.2 mm	170 mm	black	4000 N	-40 – 60 °C
55472.1	72E (6 x 12) Singlemode G.657.A1	11.6 mm	175 mm	black	4000 N	-40 – 60 °C
55496.1	96E (8 x 12) Singlemode G.657.A1	13.1 mm	200 mm	black	4000 N	-40 – 60 °C
554144.1	144E (12 x 12) Singlemode G.657.A1	16.0 mm	320 mm	black	4000 N	-40 – 60 °C

Outdoor Cable A-DQ (ZN)B2Y MM OM4

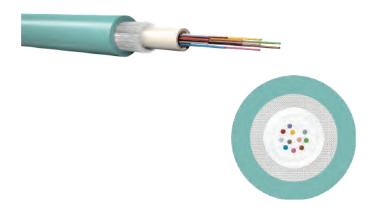
ArtNo.	Construct	Cable Ø	Bending radius	Colour outer sheath	Tensile Force	Temperature Range (Operation)
55204.10M4A	4G (1 x 4) Multimode 0M4	6.0 mm	60 mm	black	2000 N	-25 − 60 °C
55208.10M4A	8G (1 x 8) Multimode 0M4	6.0 mm	60 mm	black	2000 N	-25 − 60 °C
55212.10M4A	12G (1 x 12) Multimode 0M4	6.0 mm	60 mm	black	2000 N	-25 − 60 °C
55224.10M4A	24G (2 x 12) Multimode 0M4	7.2 mm	72 mm	black	2000 N	-25 − 60 °C
55248.10M4	48G (4 x 12) Multimode 0M4	11.0 mm	165 mm	black	3200 N	-30 − 70 °C

Outdoor Cable A-DQ(ZN)B2Y MM OM3

ArtNo.	Construct	Cable Ø	Bending radius	Colour outer sheath	Tensile Force	Temperature Range (Operation)
55204.10M3A	4G (1 x 4) Multimode 0M3	6.0 mm	60 mm	black	2000 N	-25 – 60 °C
55208.10M3A	8G (1 x 8) Multimode 0M3	6.0 mm	60 mm	black	2000 N	-25 – 60 °C
55212.10M3A	12G (1 x 12) Multimode 0M3	6.0 mm	60 mm	black	2000 N	-25 – 60 °C
55224.10M3A	24G (2 x 12) Multimode 0M3	7.2 mm	72 mm	black	2000 N	-25 – 60 °C
55248.10M3	48G (4 x 12) Multimode 0M3	11.0 mm	165 mm	black	3200 N	-30 − 70 °C

Outdoor Cable A-DQ(ZN)B2Y MM OM2

ArtNo.	Construct	Cable Ø	Bending radius	Colour outer sheath	Tensile Force	Temperature Range (Operation)
55204.1A	4G (1 x 4) Multimode 0M2	6.0 mm	60 mm	black	2000 N	-25 – 60 °C
55208.1A	8G (1 x 8) Multimode 0M2	6.0 mm	60 mm	black	2000 N	-25 – 60 °C
55212.1A	12G (1 x 12) Multimode 0M2	6.0 mm	60 mm	black	2000 N	-25 – 60 °C
55224.1A	24G (2 x 12) Multimode OM2	7.2 mm	72 mm	black	2000 N	-25 – 60 °C
55248.1A	48G (4 x 12) Multimode 0M2	7.2 mm	72 mm	black	2000 N	-25 – 60 °C



Fields of application:
For building connections
For campus cabling
For use in plastic pipe systems
For installation in cable ducts and on flatbeds

Characteristics:

Easy to use construction
Gel-free cable construction for clean and fast assembly
Small dimensions
High laying stability
Fire behaviour tested and certified according to
Construction Products Ordinance (see Euro fire class)

Cable diameter may vary

Temperature Range (Operation): see table Temperature Range (Storage): $-25-70\,^{\circ}$ C Temperature Range (Installation): $-5-50\,^{\circ}$ C

INFRALAN® I-B(ZN)BH 12E 9/125μ, OS2



ArtNo.	Construct	Cable Ø	Bending radius	Colour outer sheath	Tensile Force	Temperature Range (Operation)	Euroclass
56312.10S2-CPR	12E (1 x 12) Singlemode G.657.A1	6.5 mm	130 mm	yellow	1500 N	-25 – 60 °C	B2ca
56324.20S2-CPR	24E (2 x 12) Singlemode G.657.A1	8.3 mm	166 mm	yellow	3000 N	-10 – 70 °C	B2ca
56348.20S2-CPR	48E (4 x 12) Singlemode G.657.A1	8.3 mm	166 mm	yellow	3000 N	-10 – 70 °C	B2ca

INFRALAN® I-B(ZN)BH 12G 50/125μ, 0M4



ArtNo.	Construct	Cablel Ø	Bending radius	Colour outer sheath	Tensile Force	Temperature Range (Operation)	Euroclass
56312.10M4-	IPR 12G (1 x 12) Multimode 0M4	6.5 mm	130 mm	erica-violet	1500 N	-25 – 60 °C	B2ca
56324.20M4-0	PR 24G (2 x 12) Multimode 0M4	8.3 mm	166 mm	erica-violet	3000 N	-10 – 70 °C	B2ca
56348.20M4-0	PR 48G (4 x 12) Multimode 0M4	8.3 mm	166 mm	erica-violet	3000 N	-10 − 70 °C	B2ca

NFRALAN)

INFRALAN® I-B(ZN)BH 12G 50/125 μ , OM3

ArtNo.	Construct	Cablel Ø	Bending radius	Colour outer sheath	Tensile Force	Temperature Range (Operation)	Euroclass
56312.10M3-CPR	12G (1 x 12) Multimode 0M3	6.5 mm	130 mm	aqua	1500 N	-25 − 60 °C	B2ca
56324.20M3-CPR	24G (2 x 12) Multimode 0M3	8.3 mm	166 mm	aqua	3000 N	-10 − 70 °C	B2ca
56348.20M3-CPR	48G (4 x 12) Multimode 0M3	8.3 mm	166 mm	aqua	3000 N	-10 − 70 °C	B2ca





Indoor application
Installation in shafts, underfloor area
Secondary cabling (vertical): riser area (backbone)
Tertiary cabling (horizontal): working area, fiber-to-the-desk FTTD
Trunk cable, patch- and adapter cable
Indoor cable

YOU WILL FIND PRE-ASSEMBLED

Non-metallic, halogenfree, gel free Suitable for connector assembly Operation: $-20^{\circ}\text{C} \sim 60^{\circ}\text{C}$ Installation: $-5^{\circ}\text{C} \sim 50^{\circ}\text{C}$

Temperature Range (Operation): see table Temperature Range (Storage): -25 – 70 °C Temperature Range (Installation): -5 – 50 °C

Breakout Indoor cable I-V (ZN) HH, OS2

ArtNo.	Construct	Cablel Ø	Bending radius	Colour outer sheath	Tensile Force	Temperature Range (Operation)	Euroclass
55902.1	02E (2 x 2,8) Singlemode 0S2	3.9x6.8 mm	60 mm	yellow	400 N	-20 - 60 °C	Eca
55904.1	04E (4 x 2,8) Singlemode 0S2	8.5 mm	150 mm	yellow	1000 N	-20 - 60 °C	Eca
55908.1	08E (8 x 2,8) Singlemode 0S2	12.1 mm	210 mm	yellow	2000 N	-20 - 60 °C	Eca
55912.1	12E (12 x 2,8) Singlemode OS2	15.8 mm	275 mm	yellow	2700 N	-20 - 60 °C	Eca

Breakout Indoor cable I-V(ZN)HH, OM5

ArtNo.	Construct	Cable Ø	Bending radius	Colour outer sheath	Tensile Force	Temperature Range (Operation)	Euroclass
55002.10M5	02G (2 x 2,8) Multimode 0M5	3.9x6.8 mm	60 mm	green	400 N	-20 - 60 °C	Eca

Breakout Indoor cable I-V (ZN) HH, OM4

ArtNo.	Construct	Cable Ø	Bending radius	Colour outer sheath	Tensile Force	Temperature Range (Operation)	Euroclass
55002.10M4	02G (2 x 2,8) Multimode 0M4	3.9x6.8 mm	60 mm	aqua	400 N	-20 – 60 °C	Eca
55004.10M4	04G (4 x 2,8) Multimode 0M4	8.5 mm	150 mm	aqua	1000 N	-20 – 60 °C	Eca
55008.10M4	08G (8 x 2,8) Multimode 0M4	12,1 mm	210 mm	aqua	2000 N	-20 – 60 °C	Eca

Breakout Indoor cable I-V (ZN) HH, OM3

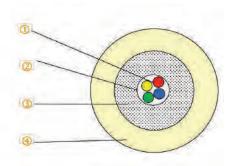
ArtNo.	Construct	Cable Ø	Bending radius	Colour outer sheath	Tensile Force	Temperature Range (Operation)	Euroclass
55002.10M3	02G (2 x 2,8) Multimode 0M3	3.9x6.8 mm	60 mm	aqua	400 N	-20 − 60 °C	Eca
55004.10M3	04G (4 x 2,8) Multimode 0M3	8.5 mm	150 mm	aqua	1000 N	-20 − 60 °C	Eca
55008.10M3	08G (8 x 2,8) Multimode 0M3	12.1 mm	210 mm	aqua	2000 N	-20 – 60 °C	Eca
55012.10M3	12G (12 x 2,8) Multimode OM3	15.8 mm	275 mm	aqua	2700 N	-20 - 60 °C	Eca

Breakout Indoor cable I-V (ZN) HH, OM2

ArtNo.	Cosntruct	Cable Ø	Bending radius	Colour outer sheath	Tensile Force	Temperature Range (Operation)	Euroclass
55002.1	02G (2 x 2,8) Multimode 0M2	3.9x6.8 mm	60 mm	orange	400 N	-20 - 60 °C	Eca
55004.1	04G (4 x 2,8) Multimode 0M2	8.5 mm	150 mm	orange	1000 N	-20 - 60 °C	Eca
55008.1	08G (8 x 2,8) Multimode 0M2	12.1 mm	210 mm	orange	2000 N	-20 - 60 °C	Eca
55012.1	12G (12 x 2,8) Multimode 0M2	15.8 mm	275 mm	orange	2700 N	-20 - 60 °C	Eca

FTTH DROP CABLE | FIBER OPTIC INSTALLATION CABLE







FTTH Indoor Drop Cable LSOH

Temperature Range (Operation): see table Temperature Range (Storage): $-40-70\,^{\circ}$ C Temperature Range (Installation): $-5-50\,^{\circ}$ C

ArtNo.	Construct	Cable Ø	Bending radius	Colour outer sheath	Tensile Force	Temperature Range (Operation)	Euroclass
FTTH-DROP-2	2 x Singlemode G.657.A2	3.0 mm	20 mm	ivory	15da N	-5 − 70 °C	Dca
FTTH-DROP-4	4 x Singlemode G.657.A2	2.65 mm	15 mm	ivory	15da N	-5 − 60 °C	Dca



Broadband Cable MDIC - Micro Drop Installations Cable

Micro Drop Installation Cable, special access cable with low bend radius, no waterpeak G.657.A1 fibers. Ruggedized construction with excellent installation performance, easy strippable for fast installation. This cable solves all installation problems.

Temperature Range (Operation): see table Temperature Range (Storage): -30 - 70°C Temperature Range (Installation):-10 - 50°C

ArtlNo.	Construct	Cable Ø	Bending radius	Colour outer sheath	Tensile Force	Temperature Range (Operation)
56204.3	2 x Singlemode G.657.A1	2.0 x 3.1 mm	30 mm	white	150 N	-30 - 70 °C
56204.4	4 x Singlemode G.657.A1	3.7 mm	37 mm	white	150 N	-30 - 70 °C



Drawing-In Tube Standard

- Line outside diameter max. 6-15 mm, solid, flexible plastic tube
- Outside diameter 40 mm
- Reusable

ArtNo.	Description
B9000.1	Drawing-In Tube with PG screwing, 1m
B9000.1,5	Drawing-In Tube with M40 screwing, 1,5m, for 25-48 connector

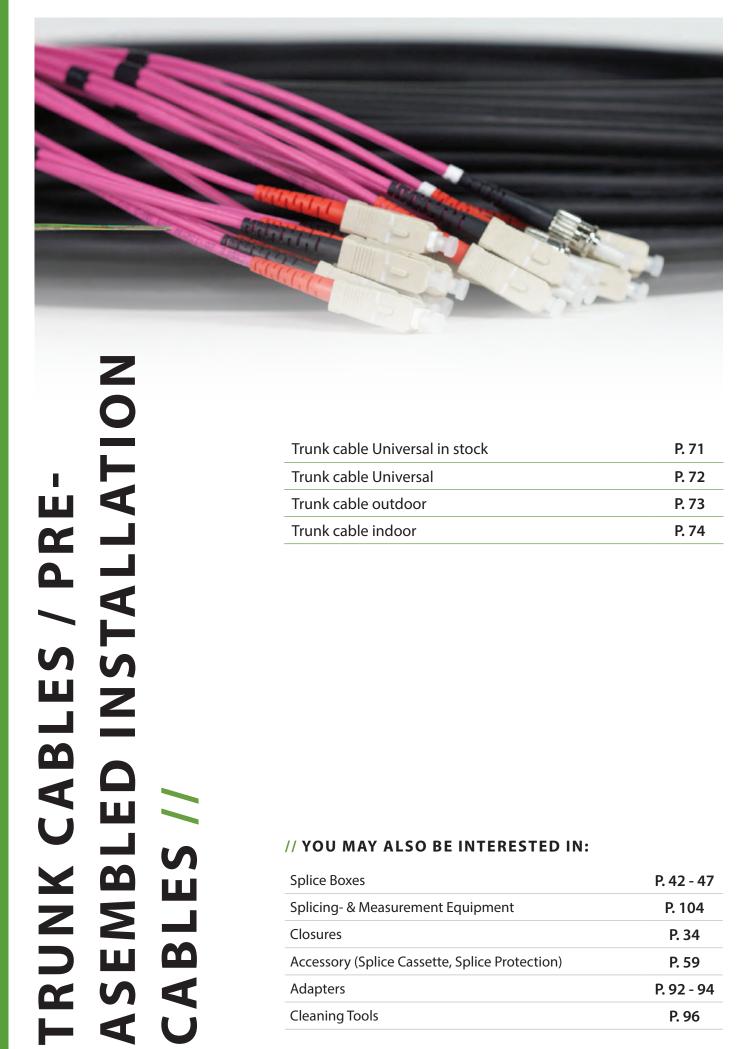


Drawing-in tube, tissue with zipper

Professional drawing-in tube Possible cable diameter 30mm Material: plastic Zippered for easy installation Length: 1m

ArtNo.	Description

39004.1	Drawing-in tube, tissue with zipper, diameter 30mm, 1m



Trunk cable Universal in stock	P. 71
Trunk cable Universal	P. 72
Trunk cable outdoor	P. 73
Trunk cable indoor	P. 74

// YOU MAY ALSO BE INTERESTED IN:

Splice Boxes	P. 42 - 47
Splicing- & Measurement Equipment	P. 104
Closures	P. 34
Accessory (Splice Cassette, Splice Protection)	P. 59
Adapters	P. 92 - 94
Cleaning Tools	P. 96







EFB sets standards in high quality

For many years, EFB has been offering individual fiber optic assemblies from its own production for insertion into cable ducts and shafts. Now there is also a standard line, which is kept in stock. These are pre-assembled trunk cables with LC connectors in the OS2, OM3 and OM4 categories. The stocked lengths can be found in the overview below.

Advantages:

Fast delivery: standard lengths up to 200 m in standard quantities available from stock

Reduction of installation costs: No splicing and assembly equipment required

Reduced installation time: cable ready for direct installation

Traceable quality: cable with serial number and measurement protocol

Performance features:

4, 8 or 12 fibers per cable Fibre class OS2, OM3 or OM4

Factory production, polishing and function test

Double-sided assembled stepped cable whips (longest length 1 m)

Identification of the remote individual cables with cable markers (numbers) Serial number on the cable

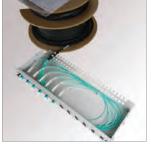
Attenuation protocol for each individual fiber is provided

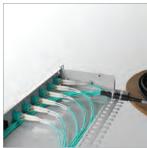
Delivery on both sides with fabric hose as drawing-in tube Delivery up to 40 m in polybag, from 50 m on disposable drum CPR-Class Dca

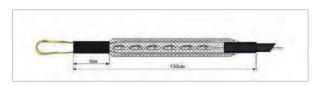
Length of the draw-in tube of 130cm, diameter: 4 fiber approx. 10mm, 8 fiber approx. 15mm, 12 fiber approx. 20mm

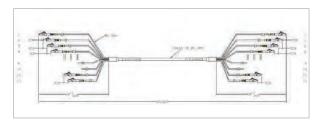
Operating Temperature: 0 − 50 °C -20 − 70 °C Storage Temperature: Multimode 50/125 Fiber type:

Max. Tension: 200 N Min. bending radius (Static): 90 mm Min. bending radius (Dynamic): 180 mm U-DQ (ZN) BH Cable type: Cable Ø: 6,0 mm Colour outer sheath: black LSZH Jacket Material:









10 m - 20 m - 30 m - 40 m - 50 m - 60 m - 70 m - 80 m - 90 m - 100 m - 110 m - 120 m - 130 m - 140 m - 150 m - 160 m - 170 m - 180 m - 190 m - 200 m

Trunk cable U-DQ(ZN)BH 50/125, LC/LC 0M4

ArtNo.	Type of connector connection 1	Type of connector connection 2	Number of fibers
08303Lxx0M4	4 x LC, beige	4 x LC, beige	4
08322Lxx0M4	8 x LC, beige	8 x LC, beige	8
08342Lxx0M4	12 x LC, beige	12 x LC, beige	12

Trunk cable U-DQ(ZN)BH 50/125, LC/LC OM3

ArtNo.	Type of connector connection 1	Type of connector connection 2	Number of fibers
08303Lxx0M3	4 x LC, beige	4 x LC, beige	4
08322Lxx0M3	8 x LC, beige	8 x LC, beige	8
08342Lxx0M3	12 x LC, beige	12 x LC, beige	12





	4	8	12	24	48
LC-SC	4 00420 v		08442.x	08829.x	48
ST-LC	08430.x 08123.x	08432.x 08133.x	08442.x 08143.x	08829.X 08828.x	08844.x
LC - SC-APC	08418.x	08438.x	08446.x	08827.x	U00 44 .X
ST-SC	08801.x	08451.x	08811.x	08161.x	08845.x
SC - E2000°	08126.x	08460.x	08147.x	08826.x	000+J.X
SC - SC-APC	08422.x	08435.x	08443.x	08162.x	
LC - E2000°	08417.x	08455.x	08148.x	08830.x	
ST - E2000°	08124.x	08454.x	08144.x	08833.x	
E2000°-APC - LC	08416.x	08463.x	08807.x	00033.X	
E2000°-APC - LC-APC	08805.x	08465.x	08808.x	08818.x	
E2000°-APC - SC	08803.x	08464.x	08809.x	08822.x	
E2000°-APC - SC-APC	08804.x	08466.x	08810.x	08824.x	
LC-LC	08122.x	08132.x	08814.x	08832.x	08842.x
SC-SC	08421.x	08431.x	08441.x	08831.x	08841.x
ST-ST	08121.x	08131.x	08141.x	08821.x	08840.x
E2000° - E2000°	08125.x	08461.x	08146.x	08834.x	08855.x
E2000°-APC - E2000°-APC	00123.8	00401.X	08816.x	08820.x	08852.x
SC-APC - SC-APC	08428.x	08439.x	08445.x	08835.x	00032.X
versal cable U-DQ(ZN)BI	H OM5 50/125u				
	4			24	
IC-IC	083	03.x0M5			
SC-SC	083	01.x0M5		08382.x0M5	
iversal cable U-DQ(ZN) B	H 0M4 50/125μm				
	4	8	12	24	48
IC-IC	08303.x0M4	08322.x0M4	08342.x0M4	08392.x0M4	08193.x0M4
ST - ST	08201.x0M4	08221.x0M4	08241.x0M4	08381.x0M4	08192.x0M4
LC-SC	08302.x0M4	08325.x0M4	08344.x0M4	08393.x0M4	08198.x0M4
ST - SC	09711.x0M4	09731.x0M4	09751.x0M4	08390.x0M4	08190.x0M4
ST-LC	08307.x0M4	08223.x0M4	08242.x0M4	08391.x0M4	
SC - SC	08301.x0M4	08321.x0M4	08341.x0M4	08382.x0M4	08191.x0M4
iversal cable U-DQ(ZN) B	H 0M3 50/125um				
TVCTSGT CODIC O DQ(ZIV) D	•	0	12	24	40
	4	8	12	24	48
SC-SC	08301.x0M3	08321.x0M3	08341.x0M3	08382.x0M3	08191.x0M3
IC-IC	08303.x0M3	08322.x0M3	08342.x0M3	08392.x0M3	08193.x0M3
LC-SC	08302.x0M3	08325.x0M3	08344.x0M3	08393.x0M3	08198.x0M3
ST-SC	09711.x0M3	09731.x0M3	09751.x0M3	08390.x0M3	08190.x0M3
ST - ST ST - LC	08201.x0M3 08307.x0M3	08221.x0M3 08223.x0M3	08241.x0M3 08242.x0M3	08381.x0M3 08391.x0M3	08192.x0M3
iversal cable U-DQ(ZN) B	H 0M2 50/125μm 4	8	12	24	48
ST - ST	08201.x	08221.x	08241.x	08381.x	08192.x
SC-SC	08301.x	08321.x	08341.x	08382.x	08191.x
LC-SC	08301.x 08302.x	08325.x	08344.x	08393.x	V0171.X
LC-LC	08303.x	08322.x	08342.x	08392.x	
ST-SC	08303.x 09711.x	08322.x 09731.x	08342.x 09751.x	08392.x 08390.x	08190.x
LC-ST	08307.x	08223.x	09/51.x 08242.x	08391.x	08197.x
		UJLIJIN	002TZ.A	00371.A	00177.X
iversal cable U-DQ(ZN) B				12	24
	4	8		12	24
SC-SC	08311.x	08331.x		08351.x	08181.x
IC-IC	08214.x	08332.x		08360.x	08182.x
LC-SC	08312.x	08333.x		08352.x	08183.x
ST-ST	08211.x	08231.x		08251.x	08281.x
ST - LC	08212.x	08334.x 09741.x		08252.x	08283.x



Outdoor cable A-DQ(ZN) B2Y G657A 9/125μm						
	4	8	12	24		
SC - SC	08421.xADQ		08441.xADQ	08831.xADQ		
ST - ST	08121.xADQ	08131.xADQ	08141.xADQ	08821.xADQ		
LC-LC	08122.xADQ	08132.xADQ	08814.xADQ	08832.xADQ		
LC-ST	08123.xADQ	08133.xADQ	08143.xADQ	08828.xADQ		
LC-SC	08430.xADQ	08432.xADQ	08442.xADQ	08829.xADQ		
ST - SC	08801.xADQ	08451.xADQ	08811.xADQ	08161.xADQ		

Outdoor cable A-DQ(ZN) B2Y 0M4 50/125μm						
	8 12					
LC-SC	08325.xADQ0M4					
ST - ST		08241.xADQ0M4				

Outdoor cable A-DQ(ZN) B2Y OM3 50/125μm					
	4	8	12	24	
SC-SC		08321.xADQ0M3	08341.xADQ0M3	08382.xADQ0M3	
ST - ST		08221.xADQ0M3	08241.xADQ0M3	08381.xADQ0M3	
ST - SC	09711.xADQ0M3	09731.xADQ0M3	09751.xADQ0M3	08390.xADQ0M3	
ST-LC	08307.xADQ0M3	08223.xADQ0M3	08242.xADQ0M3	08391.xADQ0M3	
LC-LC	08303.xADQ0M3	08322.xADQ0M3	08342.xADQ0M3	08392.xADQ0M3	
SC-LC	08302.xADQ0M3	08325.xADQ0M3	08344.xADQ0M3	08393.xADQ0M3	

Outdoor cable A-DQ(ZN) B2Y OM2 50/125μm					
	4	8	12	24	
ST - LC	08307.xADQ	08223.xADQ	08242.xADQ	08391.xADQ	
LC-LC	08303.xADQ	08322.xADQ	08342.xADQ	08392.xADQ	
ST - SC	09711.xADQ	09731.xADQ	09751.xADQ	08390.xADQ	
SC-LC	08302.xADQ	08325.xADQ	08344.xADQ	08393.xADQ	
SC - SC				08382.xADQ	



Drawing-In Tube

Line outside diameter max. 6-15 mm, solid, flexible plastic tube, outside diameter 40 mm, Reusable $\,$

ArtNo.	Description
B9000.1	Drawing-In Tube with PG screwing, 1m
B9000.1,5	Drawing-In Tube with M40 screwing, 1,5m, for 25-48 connector



Drawing-in tube, tissue with zipper

Professional drawing-in tube Possible cable diameter 30mm Material: plastic Zippered for easy installation Length: 1m

ArtNo.	Description
B9004.1	Drawing-in tube, tissue with zipper, diameter 30mm, 1m

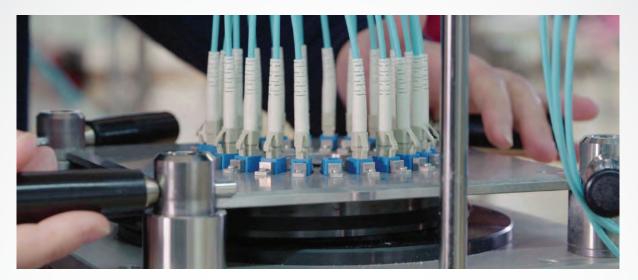




sut cable I W/7M IIII ()C2 0/125	66		
out cable I-V(ZN) HH (
10.00	2	4	8	12
LC-SC	01790.x	01820.x	01832.x	01873.x
ST-LC	01792.x	01712.x	01732.x	01752.x
ST - ST	01800.x	01711.x	01731.x	01751.x
ST-SC	01801.x	01723.x	01740.x	01951.x
SC-SC	01802.x	01811.x	01831.x	01851.x
rc-rc	01803.x	01812.x	01840.x	01754.x
E2000°-APC - E2000°-APC	01770.x	01700.x	01843.x	01887.x
SC - SC-APC	01805.x	01815.x	01730.x	01879.x
SC-APC - SC-APC	01806.x	01818.x	01734.x	01885.x
E2000®-APC - LC	01774.x	01704.x	01841.x	01888.x
LC - SC-APC	01780.x	01713.x	01846.x	01881.x
LC - E2000°	01794.x	01719.x	01835.x	01755.x
ST - E2000°	01807.x	01714.x	01736.x	01825.x
SC - E2000°	01808.x	01718.x	01834.x	01865.x
E2000° - E2000°	01809.x	01716.x	01839.x	01824.x
ST - SC-APC	01783.x	01715.x	01733.x	01878.x
kout cable I-V(ZN) HH ()M4 50/125µm			
ROUL CADIC I-V(ZIV) IIII C	•			
a= :-	2	4	8	12
ST-LC	06122.x0M4	06512.x0M4	06532.x0M4	09872.x0M4
ST - ST	06131.x0M4	06511.x0M4	06531.x0M4	06551.x0M4
SC-SC	06771.x0M4	06711.x0M4	06671.x0M4	06751.x0M4
LC-SC	06772.x0M4	06712.x0M4	06674.x0M4	06752.x0M4
LC-LC	06773.x0M4	06720.x0M4	06672.x0M4	09873.x0M4
ST-SC	09811.x0M4	09831.x0M4	09851.x0M4	09871.x0M4
	2	4	8	12
ST-LC	06122.x0M3	06512.x0M3	06532.x0M3	09872.x0M3
ST-LC ST-ST				
	06122.x0M3	06512.x0M3	06532.x0M3	09872.x0M3
ST - ST	06122.x0M3 06131.x0M3	06512.x0M3 06511.x0M3	06532.x0M3 06531.x0M3	09872.x0M3 06551.x0M3
ST-ST SC-SC	06122.x0M3 06131.x0M3 06771.x0M3	06512.x0M3 06511.x0M3 06711.x0M3	06532.x0M3 06531.x0M3 06671.x0M3	09872.x0M3 06551.x0M3 06751.x0M3
ST - ST SC - SC LC - SC	06122.x0M3 06131.x0M3 06771.x0M3 06772.x0M3	06512.x0M3 06511.x0M3 06711.x0M3 06712.x0M3	06532.x0M3 06531.x0M3 06671.x0M3 06674.x0M3	09872.x0M3 06551.x0M3 06751.x0M3 06752.x0M3
ST-ST SC-SC LC-SC LC-LC	06122.x0M3 06131.x0M3 06771.x0M3 06772.x0M3	06512.x0M3 06511.x0M3 06711.x0M3 06712.x0M3	06532.x0M3 06531.x0M3 06671.x0M3 06674.x0M3 06672.x0M3	09872.x0M3 06551.x0M3 06751.x0M3 06752.x0M3
ST-ST SC-SC LC-SC LC-LC ST-SC	06122.x0M3 06131.x0M3 06771.x0M3 06772.x0M3 06773.x0M3	06512.x0M3 06511.x0M3 06711.x0M3 06712.x0M3	06532.x0M3 06531.x0M3 06671.x0M3 06674.x0M3 06672.x0M3	09872.x0M3 06551.x0M3 06751.x0M3 06752.x0M3 09873.x0M3
ST - ST SC - SC LC - SC LC - LC ST - SC E2000° - E2000°	06122.x0M3 06131.x0M3 06771.x0M3 06772.x0M3 06773.x0M3 09811.x0M3	06512.x0M3 06511.x0M3 06711.x0M3 06712.x0M3 06720.x0M3	06532.x0M3 06531.x0M3 06671.x0M3 06674.x0M3 06672.x0M3	09872.x0M3 06551.x0M3 06751.x0M3 06752.x0M3 09873.x0M3
ST - ST SC - SC LC - SC LC - LC ST - SC E2000° - E2000° LC - E2000° SC - E2000°	06122.x0M3 06131.x0M3 06771.x0M3 06772.x0M3 06773.x0M3 09811.x0M3 06774.x0M3 06123.x0M3	06512.x0M3 06511.x0M3 06711.x0M3 06712.x0M3 06720.x0M3 09831.x0M3	06532.x0M3 06531.x0M3 06671.x0M3 06674.x0M3 06672.x0M3	09872.x0M3 06551.x0M3 06751.x0M3 06752.x0M3 09873.x0M3
ST - ST SC - SC LC - SC LC - LC ST - SC E2000° - E2000° LC - E2000°	06122.x0M3 06131.x0M3 06771.x0M3 06772.x0M3 06773.x0M3 09811.x0M3 06774.x0M3 06123.x0M3	06512.xOM3 06511.xOM3 06711.xOM3 06712.xOM3 06720.xOM3 09831.xOM3 06713.xOM3	06532.x0M3 06531.x0M3 06671.x0M3 06674.x0M3 06672.x0M3 09851.x0M3 06534.x0M3	09872.x0M3 06551.x0M3 06751.x0M3 06752.x0M3 09873.x0M3
ST-ST SC-SC LC-SC LC-LC ST-SC E2000°-E2000° LC-E2000° SC-E2000° kout cable I-V(ZN) HH C	06122.x0M3 06131.x0M3 06771.x0M3 06772.x0M3 06773.x0M3 09811.x0M3 06774.x0M3 06123.x0M3 06123.x0M3 06775.x0M3	06512.x0M3 06511.x0M3 06711.x0M3 06712.x0M3 06720.x0M3 09831.x0M3 06713.x0M3 06714.x0M3	06532.x0M3 06531.x0M3 06671.x0M3 06674.x0M3 06672.x0M3 09851.x0M3 06534.x0M3	09872.x0M3 06551.x0M3 06751.x0M3 06752.x0M3 09873.x0M3 09871.x0M3 06754.x0M3
ST-ST SC-SC LC-SC LC-LC ST-SC E2000°-E2000° LC-E2000° SC-E2000° SC-E2000°	06122.x0M3 06131.x0M3 06771.x0M3 06772.x0M3 06773.x0M3 09811.x0M3 06774.x0M3 06123.x0M3 06775.x0M3	06512.x0M3 06511.x0M3 06711.x0M3 06712.x0M3 06720.x0M3 09831.x0M3 06713.x0M3 06714.x0M3	06532.x0M3 06531.x0M3 06671.x0M3 06674.x0M3 06672.x0M3 09851.x0M3 06534.x0M3	09872.x0M3 06551.x0M3 06751.x0M3 06752.x0M3 09873.x0M3 09871.x0M3 06754.x0M3
ST-ST SC-SC LC-SC LC-LC ST-SC E2000°-E2000° LC-E2000° SC-E2000° SC-E2000° Kout cable I-V(ZN) HH C	06122.x0M3 06131.x0M3 06771.x0M3 06772.x0M3 06773.x0M3 09811.x0M3 06774.x0M3 06123.x0M3 06775.x0M3 06123.x0M3 06775.x0M3	06512.x0M3 06511.x0M3 06711.x0M3 06712.x0M3 06720.x0M3 09831.x0M3 06713.x0M3 06714.x0M3	06532.x0M3 06531.x0M3 06671.x0M3 06674.x0M3 06672.x0M3 09851.x0M3 06534.x0M3	09872.x0M3 06551.x0M3 06751.x0M3 06752.x0M3 09873.x0M3 09871.x0M3 06754.x0M3
ST-ST SC-SC LC-SC LC-LC ST-SC E2000°-E2000° LC-E2000° SC-E2000° SC-E2000° ST-LC ST-LC ST-ST SC-SC	06122.x0M3 06131.x0M3 06771.x0M3 06772.x0M3 06773.x0M3 09811.x0M3 06774.x0M3 06123.x0M3 06123.x0M3 06123.x0M3 06775.x0M3	06512.xOM3 06511.xOM3 06711.xOM3 06712.xOM3 06720.xOM3 09831.xOM3 06713.xOM3 06714.xOM3	06532.x0M3 06531.x0M3 06671.x0M3 06674.x0M3 06672.x0M3 09851.x0M3 06534.x0M3 8 06532.x 06531.x 06671.x	09872.x0M3 06551.x0M3 06751.x0M3 06752.x0M3 09873.x0M3 09871.x0M3 06754.x0M3
ST-ST SC-SC LC-SC LC-LC ST-SC E2000°-E2000° LC-E2000° SC-E2000° SC-E2000° ST-LC ST-LC ST-ST SC-SC LC-SC	06122.x0M3 06131.x0M3 06771.x0M3 06772.x0M3 06773.x0M3 09811.x0M3 06774.x0M3 06123.x0M3 06123.x0M3 06123.x0M3 06775.x0M3	06512.xOM3 06511.xOM3 06711.xOM3 06712.xOM3 06720.xOM3 09831.xOM3 06713.xOM3 06714.xOM3	06532.x0M3 06531.x0M3 06671.x0M3 06674.x0M3 06672.x0M3 09851.x0M3 06534.x0M3 8 06532.x 06531.x 06671.x 06674.x	09872.x0M3 06551.x0M3 06751.x0M3 06752.x0M3 09873.x0M3 09871.x0M3 06754.x0M3 12 09872.x 06551.x 06751.x
ST-ST SC-SC LC-SC LC-LC ST-SC E2000°-E2000° LC-E2000° SC-E2000° SC-E2000° Kout cable I-V(ZN) HH C ST-LC ST-ST SC-SC LC-SC LC-SC	06122.x0M3 06131.x0M3 06771.x0M3 06772.x0M3 06772.x0M3 09811.x0M3 06774.x0M3 06123.x0M3 06123.x0M3 06123.x0M3 06775.x0M3	06512.xOM3 06511.xOM3 06711.xOM3 06712.xOM3 06720.xOM3 09831.xOM3 06713.xOM3 06714.xOM3 4 06512.x 06511.x 06711.x 06712.x 06720.x	06532.x0M3 06531.x0M3 06671.x0M3 06674.x0M3 06672.x0M3 09851.x0M3 06534.x0M3 8 06532.x 06531.x 06671.x 06674.x	09872.x0M3 06551.x0M3 06751.x0M3 06752.x0M3 09873.x0M3 09871.x0M3 06754.x0M3 12 09872.x 06551.x 06751.x 06752.x 09873.x
ST-ST SC-SC LC-SC LC-LC ST-SC E2000°-E2000° LC-E2000° SC-E2000° SC-E2000° Kout cable I-V(ZN) HH (ST-LC ST-ST SC-SC LC-SC LC-SC LC-LC ST-SC	06122.x0M3 06131.x0M3 06771.x0M3 06772.x0M3 06772.x0M3 09811.x0M3 06774.x0M3 06123.x0M3 06775.x0M3 06123.x0M3 06775.x0M3	06512.xOM3 06511.xOM3 06711.xOM3 06712.xOM3 06720.xOM3 09831.xOM3 06713.xOM3 06714.xOM3 4 06512.x 06511.x 06711.x 06712.x 06720.x 09831.x	06532.x0M3 06531.x0M3 06671.x0M3 06674.x0M3 06672.x0M3 09851.x0M3 06534.x0M3 8 06532.x 06671.x 06671.x 06672.x 09851.x	09872.x0M3 06551.x0M3 06751.x0M3 06752.x0M3 09873.x0M3 09871.x0M3 06754.x0M3 12 09872.x 06551.x 06751.x 06752.x 09873.x 09871.x
ST-ST SC-SC LC-SC LC-LC ST-SC E2000°-E2000° LC-E2000° SC-E2000° Kout cable I-V(ZN) HH (ST-LC ST-ST SC-SC LC-SC LC-LC ST-SC E2000°-E2000°	06122.x0M3 06131.x0M3 06771.x0M3 06772.x0M3 06773.x0M3 09811.x0M3 06774.x0M3 06123.x0M3 06775.x0M3 06123.x0M3 06775.x0M3 06123.x0M3 06775.x0M3	06512.xOM3 06511.xOM3 06711.xOM3 06712.xOM3 06720.xOM3 09831.xOM3 06714.xOM3 4 06512.x 06511.x 06711.x 06712.x 06720.x 09831.x 06714.xOM3	06532.x0M3 06531.x0M3 06671.x0M3 06674.x0M3 06672.x0M3 09851.x0M3 06534.x0M3 8 06532.x 06671.x 06671.x 06674.x 06672.x 09851.x 06673.x 06673.x 06674.x	09872.x0M3 06551.x0M3 06751.x0M3 06752.x0M3 09873.x0M3 09871.x0M3 06754.x0M3 12 09872.x 06551.x 06751.x 06752.x 09873.x 09871.x 06754.x
ST-ST SC-SC LC-SC LC-LC ST-SC E2000°-E2000° LC-E2000° SC-E2000° Kout cable I-V(ZN) HH (ST-LC ST-ST SC-SC LC-SC LC-LC ST-SC E2000°-E2000° SC-E2000°	06122.x0M3 06131.x0M3 06771.x0M3 06772.x0M3 06773.x0M3 09811.x0M3 06774.x0M3 06123.x0M3 06775.x0M3 06123.x0M3 06775.x0M3 06123.x0M3 06775.x0M3	06512.xOM3 06511.xOM3 06711.xOM3 06712.xOM3 06720.xOM3 09831.xOM3 06714.xOM3 4 06512.x 06511.x 06711.x 06712.x 06712.x 06712.x 06714.xOM3	06532.x0M3 06531.x0M3 06671.x0M3 06674.x0M3 06672.x0M3 09851.x0M3 06534.x0M3 8 06532.x 06671.x 06671.x 06672.x 09851.x	09872.x0M3 06551.x0M3 06751.x0M3 06752.x0M3 09873.x0M3 09871.x0M3 06754.x0M3 12 09872.x 06551.x 06751.x 06752.x 09873.x 09871.x
ST-ST SC-SC LC-SC LC-LC ST-SC E2000°-E2000° LC-E2000° SC-E2000° ST-LC ST-ST SC-SC LC-SC LC-SC LC-LC ST-SC E2000°-E2000° SC-E2000° SC-E2000° SC-E2000° ST-E2000°	06122.x0M3 06131.x0M3 06771.x0M3 06772.x0M3 06773.x0M3 09811.x0M3 06774.x0M3 06123.x0M3 06775.x0M3 06123.x0M3 06775.x0M3 06123.x0M3 06775.x0M3 06123.x0M3 06775.x0M3	06512.x0M3 06511.x0M3 06711.x0M3 06712.x0M3 06720.x0M3 09831.x0M3 06714.x0M3 4 06512.x 06511.x 06711.x 06712.x	06532.x0M3 06531.x0M3 06671.x0M3 06674.x0M3 06672.x0M3 09851.x0M3 06534.x0M3 8 06532.x 06671.x 06671.x 06674.x 06672.x 09851.x 06673.x 06673.x 06674.x	09872.x0M3 06551.x0M3 06751.x0M3 06752.x0M3 09873.x0M3 09871.x0M3 06754.x0M3 12 09872.x 06551.x 06751.x 06752.x 09873.x 09871.x 06754.x 06753.x
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OUR FIBER OPTIC PRODUCTION



One of our own manufacturing plants in Germany is located in Sonneberg. This location is specialised in the assembly of fiber optic cables, subracks, FTTX components and special fixtures, as well as in fitting of splice boxes. We ensure the highest quality level due to:

- many years of experience and employees with a high level of expertise
- the use of state-of-the-art test/inspection technology, a production sequence process and the implementation of regular
- quality controls during serial production

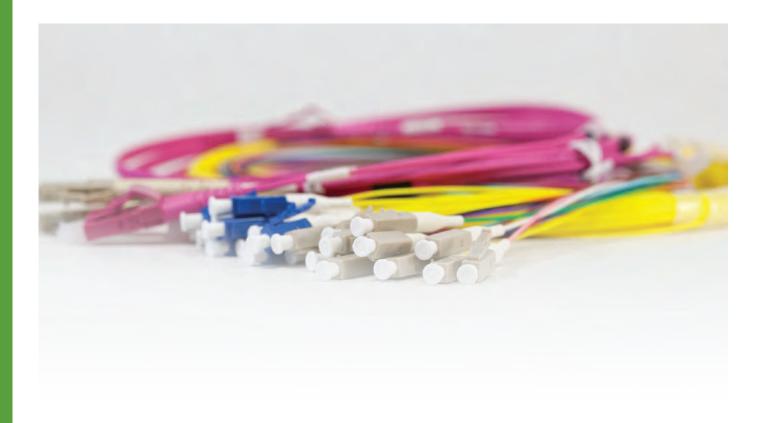
On call twenty-four seven

- high stock availability of individual components and short production times
- R&M certified production processes for the serial production of E-2000 connectors to achieve the highest level of quality

To find out more details about our manufacturing plants in Germany, visit our website www.efb-elektronik.de/en/production

ASSEMBLY LEFT / RIGHT CABLE SELECTION Cable type Please select Please select Plug left / right **Application** Please select • None Cable divider left / right Fiber grade Please select Configurator for breakout and loose tube cables Number of Please select fibers Easy and quick access to individual products Require length Sensible alternative solutions in case of conflicts Manufacture Configurations are saved automatically: Call up, edit and order again length Individually customised live price calculation Requesting quotations online directly with the configurator **Detailed product specifications**

Direct access to the configurator konfigurator.efb-elektronik.de



Patch cable/ Jumper P. 77 - 84 Pre-assembled splice cassettes P. 85 Service P. 86 - 87 Pigtails P. 88 - 89

// YOU MAY ALSO BE INTERESTED IN:

P. 42 - 47
P. 318
P. 104
P. 96
P. 240
P. 92 -94



- Discover our wide range of fiber optic jumpers: from standard jumpers to custom-made products
- Standard jumpers in various connector versions (e.g. LC-LC, SC-SC, LC-SC, E2000®) and in various cable versions
- Your advantage: short delivery times for standard variants

Overview Standard Duplex Jumper						
	OS2 acc. to ITU-T G.652.D	OM5	OM4	OM3	OM2	OM1
LC-Duplex, LC-Duplex	00350.x	00319.x0M5	00319.x	00312.x	00310.x	00330.x
LC-Duplex, SC-Duplex	00360.x	00323.x0M5	00323.x	00314.x	00320.x	03061.x
LC-Duplex, ST	00361.x		00326.x	00313.x	00321.x	00371.x
SC-Duplex, SC-Duplex	02513.x	00318.x0M5	00318.x	07413.x	06413.x	06423.x
SC-Duplex, ST	02073.x		00347.x	07353.x	06353.x	06363.x
ST, ST	02003.x		00348.x	07013.x	06013.x	06023.x
LC-Duplex, E2000®	00364.x		00341.x	00315.x		
E2000®, SC-Duplex	00940.x					
E2000°, ST	00909.x					

	Duplex Jumper Matrix APC				
	0S2 acc. to ITU-T G.652.D				
LC-Duplex, LC-Duplex	00381.x				
LC-Duplex, SC-Duplex	00387.x				
SC-Duplex, SC-Duplex	02561.x				
SC-Duplex, LC-Duplex	00362.x				
E2000°, E2000°	00933.x				
E2000°, LC-Duplex	00937.x				
LC-Duplex, E2000®	00389.x				
E2000°, SC-Duplex	00939.x				
E2000°, ST	00920.x				









FIBER CONNECTORS AND ITS FEATURES











	SC-Connector Subscriber Connector	LC-Connector Lucent Connector	ST-Connector Straight Tip	DIN (LSA)-Connector Solder-, screw- and stripping-free	
Relevant Producer	div.	div.	div.	div.	
pro	low IL, sturdy Connector	low RL,small dimension, due to this high packing density	save lock due to bayonet locking	save lock due to screwing lock	
con	no high packing density possible in comparance		high IL, measurement variation on mechanical forces	no high packing density possible in comparance	
Connector cleaning/ Effect	Poor connector cleaning affects the RL and IL. This can also damage the geometry of the connector section.	Poor connector cleaning affects the RL and IL. This can also damage the geometry of the connector section.	Poor connector cleaning affects the RL and IL. This can also damage the geometry of the connector section.	Poor connector cleaning affects the RL and IL. This can also damage the geometry of the connector section.	
Application	FO link/Switch Systems, Optical MDF (Mult	i Distribution Frames), LAN, CATV, SONET/ SD	OH, ATM, WDM Communication Systems, mea	asurement- and test devices	
Ferrule diameter	2,5mm	1,25mm	2,5mm	2,5mm	
APC version possible(angled polish)	yes	yes	yes	yes	
Typical IL	0,2 - 0,3dB	0,2dB	0,2 - 0,4dB	0,2dB	
Suitable fiber	1	1	1 1		
Standard	IEC 61754-4	IEC 61754-20	IEC 61754-2 IEC 874-6		
Locking mechanism	Push Pull principle	clamping bracket lock	Bayonet lock	screwing lock	









	E2000°-Connector	MPO/MTP®-Connector Multipath Push-On/ MTP®=Brand name	MTRJ-Connector Mechanical Transfer Registered Jack	FC-Connector Fiber Connector	
Relevant Producer	Reichle & de Massari, Huber & Suhner, Diamond	US Conec	div.	div.	
pro	patent registered Connector for WAN, required for WAN, integrated dust- and laser protection	small Connector with high ammount of connection possible, high packing density	Duplex housing	save lock due to screwing lock	
con	high price, assembling can only be done by certified productions	complex assembling, high IL	high IL, low RL	no high packing density possible in comparance	
Connector cleaning/ Effect	Poor connector cleaning affects the RL and	IL. This can also damage the geometry of the	connector section.		
Application	FO link/Switch Systems, Optical MDF (Mult measurement- and test devices	FO link/Switch Systems, Optical MDF (Multi Distribution Frames), LAN, CATV, SONET/ SDH, ATM, WDM Communication Systems, measurement- and test devices			
Ferrule diameter	2,5mm	MT- Ferrule	MT- Ferrule	2,5mm	
APC version possible(angled polish)	yes	yes	yes	yes	
Typical IL	0,2dB	0,3 - 0,5dB	0,3 - 0,5dB	0,2dB	
Suitable fiber	1	4-96	2	1	
Standard	IEC 61754-15	IEC 61754-5	IEC 61754-18	IEC 61754-13	
Locking mechanism	Push Pull principle	Push Pull principle	clamping bracket lock	screwing lock	

MTRJ-, FC-, DIN-Assemblies on request available

Optical Classes

Singlemode	Multimode
OS2 9/125μ	OM5 50/125μ
G657 (A1, A2, B1, B2) 9/125μ	OM4 50/125μ
G652D 9/125μ	OM3 50/125μ
	OM2 50/125μ
	OM1 62,5/125μ

Duplex Jumper 1.2mm

Duplex Jumper with 1.2 mm outer jacket Space-saving installation due to the small outer diameter Halogen free according to IEC-60754-2 Flame retardant according to IEC-60332-1 Low smoke according to IEC-61034 Connector in colour of category (aqua, erika-violet or blue) LC connector in Compact design EFB fiber connectors meet the quality classes Grade B/2 according to IEC-61753-1 for Singlemode

Grade A/1 according to IEC-61753-122-2 (Draft) for Multimode

pre-coded 100% tested and with individuell measuring protocol

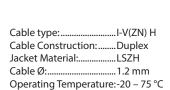
Stock length: 0,5 - 1,0 - 2,0 - 3,0 - 5,0 - 10,0 m











Storage Temperature:-20 - 85 °C

Duplex Jumper Flat Twin

The Flat Twin Duplex Jumper have a higher stability due to the additional added outer jacket and can be installed much easier than standard jumper. Also the jacket material is made of LSZH.

Characteristics

Additional outer jacket for higher stability and easier installation Cable sheath consists of flame retardant LSZH material Cable whip length of 150 mm inclusive connector Same colour of Cable whip and jacket material Compact cable diameter of 3x5 mm

Simple allocation of the fibers with boots in different colours or A/B markers

Possibility of coding with clips enclosed to the delivery

Stock length: 0,50 - 1,0 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 - 25 - 30 - 35 - 40 - 45 - 50 m

ArtNo.	Category	Colour outer sheath	Connector
00350FT.x	OS2 acc. to ITU-T G.652.D	yellow	LC-Duplex blue, LC-Duplex blue
00360FT.x	OS2 acc. to ITU-T G.652.D	yellow	LC-Duplex blue, SC-Duplex blue
02513FT.x	OS2 acc. to ITU-T G.652.D	yellow	SC-Duplex blue, SC-Duplex blue
00319FT.x	0M4	erica-violet	LC-Duplex beige, LC-Duplex beige
00323FT.x	0M4	erica-violet	LC-Duplex beige, SC-Duplex beige
00318FT.x	0M4	erica-violet	SC-Duplex beige, SC-Duplex beige
00312FT.x	OM3	aqua	LC-Duplex beige, LC-Duplex beige
00314FT.x	OM3	aqua	LC-Duplex beige, SC-Duplex beige
07413FT.x	OM3	aqua	SC-Duplex beige, SC-Duplex beige







Duplex Jumper HD Uniboot LC/UPC - LC/UPC

The LC HD Uniboot Jumper has a long unlock latch, due to unlock in the easiest way in HD patchpanel. The Polarity or Coding of the Duplex connector can be changed in the easiest way that it can reach the requirements of the application. The Jumper is available in the categories OM3, OM4 and G657A1.

Stock length: 0,50 - 1,0 - 1,50 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 m

ArtNo.	Category	Colour outer sheath	Connector
DJP-LCLCOS2-UNI-xx	G657A1 acc. to ITU-T G.657	yellow	LC blue, LC blue
DJP-LCLCOM4-UNI-xx	OM4	erica-violet	LC erica-violet, LC erica-violet
DJP-LCLCOM3-UNI-xx	OM3	aqua	LC aqua, LC aqua





Cable type:	I-V(ZN) H
Cable Construction:	Duplex
Jacket Material:	LSZH
Cable Ø:	3.0 mm
Operating Temperature:	:-20 – 70 °C
Storage Temperature:	-20 – 70 °C



Duplex Jumper LC-LC

Features of EFB fiber optic patch cables

Tension relief reinforced with aramid yarn Halogen-free and flame-retardant sheath according to IEC-60754-2, IEC-60332-1 and IEC-61034

EFB fiber optic connectors meet the minimum quality class Grade B/2 according to IEC-61753-1 for singlemode and Grade A/1 for multimode according to IEC 61753-122-2 (UPC cut)

100% tested and with individual measurement report

Cable type:.....I-V(ZN) H Cable Construction:......Duplex Jacket Material:....LSZH Cable Ø:.....2.0 mm Operating Temperature:-20 - 75 °C Storage Temperature:-20 – 85 °C

Stock length: 0,50 - 1,0 - 1,50 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 m

ArtNo.	Category	Colour outer sheath	Connector
00381.x	OS2 acc. to ITU-T G.652.D	yellow	LC-Duplex 8° green, LC-Duplex 8° green
00384.x	OS2 acc. to ITU-T G.652.D	yellow	LC-Duplex 8° green, LC-Duplex blue
00350BI.x	G657A2 acc. to ITU-T G.657	yellow	LC-Duplex blue, LC-Duplex blue
00350.x	OS2 acc. to ITU-T G.652.D	yellow	LC-Duplex blue, LC-Duplex blue
00319.x0M5	OM5	lime green	LC-Duplex beige, LC-Duplex beige
00319.x	OM4	erica-violet	LC-Duplex beige, LC-Duplex beige
00312.x	OM3	aqua	LC-Duplex beige, LC-Duplex beige
00310.x	OM2	orange	LC-Duplex beige, LC-Duplex beige
00330.х	OM1	orange	LC-Duplex beige, LC-Duplex beige





YOU WILL FIND SUITABLE ADAPTERS ON PAGE 92

Duplex Jumper LC-SC

Features of EFB fiber optic patch cables Tension relief reinforced with aramid yarn

Halogen-free and flame-retardant sheath according to IEC-60754-2, IEC-60332-1 and IEC-61034

EFB fiber optic connectors meet the minimum quality class Grade B/2 according to IEC-61753-1 for singlemode and Grade A/1 for multimode according to IEC 61753-122-2 (UPC cut)

100% tested and with individual measurement report

Cable type:.....I-V(ZN) H Cable Construction:......Duplex Jacket Material:....LSZH Cable Ø:.....2.0 mm Operating Temperature: -20 - 75 °C Storage Temperature:-20 - 85 °C

Stock length: 0,50 - 1,0 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 m

ArtNo.	Category	Colour outer sheath	Connector
00387.x	OS2 acc. to ITU-T G.652.D	yellow	LC-Duplex 8° green, SC-Duplex 8° green
00383.x	OS2 acc. to ITU-T G.652.D	yellow	LC-Duplex 8° green, SC-Duplex blue
00362.x	OS2 acc. to ITU-T G.652.D	yellow	SC-Duplex 8° green, LC-Duplex blue
00360BI.x	G657A2 acc. to ITU-T G.657	yellow	LC-Duplex blue, SC-Duplex blue
00360.x	OS2 acc. to ITU-T G.652.D	yellow	LC-Duplex blue, SC-Duplex blue
00323.x0M5	OM5	lime green	LC-Duplex beige, SC-Duplex beige
00323.x	OM4	erica-violet	LC-Duplex beige, SC-Duplex beige
00314.x	OM3	aqua	LC-Duplex beige, SC-Duplex beige
00320.x	OM2	orange	LC-Duplex beige, SC-Duplex beige
03061.x	OM1	orange	LC-Duplex beige, SC-Duplex beige





Duplex Jumper LC-ST

Features of EFB fiber optic patch cables

Tension relief reinforced with aramid yarn Halogen-free and flame-retardant sheath according to IEC-60754-2, IEC-60332-1 and IEC-61034

EFB fiber optic connectors meet the minimum quality class Grade B/2 according to IEC-61753-1 for singlemode and Grade A/1 for multimode according to IEC 61753-122-2 (UPC cut)

100% tested and with individual measurement report

Cable type:......l-V(ZN) H
Cable Construction:.....Duplex
Jacket Material:....LSZH
Cable Ø:.....2.0 mm
Operating Temperature:-20 – 75 °C
Storage Temperature: ...-20 – 85 °C

Stock length: 0,5 - 1,0- 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 m

ArtNo.	Category	Colour outer sheath	Connector
00361.x	OS2 acc. to ITU-T G.652.D	yellow	LC-Duplex blue, ST
00326.x	OM4	erica-violet	LC-Duplex beige, ST
00313.x	OM3	aqua	LC-Duplex beige, ST
00321.x	OM2	orange	LC-Duplex beige, ST
00371.x	OM1	orange	LC-Duplex beige, ST





Duplex Jumper SC-SC

Features of EFB fiber optic patch cables

Tension relief reinforced with aramid yarn Halogen-free and flame-retardant sheath according to IEC-60754-2, IEC-60332-1 and IEC-61034

EFB fiber optic connectors meet the minimum quality class Grade B/2 according to IEC-61753-1 for singlemode and Grade A/1 for multimode according to IEC 61753-122-2 (UPC cut)

100% tested and with individual measurement report

Stock length: 0,5 - 1,0 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 m

Cable type:	I-V(ZN) H
Cable Construction:	Duplex
Jacket Material:	LSZH
Cable Ø:	3.0 mm
Operating Temperature:	-20 − 75 °C
Storage Temperature:	-20 − 85 °C

ArtNo.	Category	Colour outer sheath	Connector
02561.x	OS2 acc. to ITU-T G.652.D	yellow	SC-Duplex 8° green, SC-Duplex 8° green
02513.x	OS2 acc. to ITU-T G.652.D	yellow	SC-Duplex blue, SC-Duplex blue
00318.x0M5	OM5	lime green	SC-Duplex beige, SC-Duplex beige
00318.x	OM4	erica-violet	SC-Duplex beige, SC-Duplex beige
07413.x	OM3	aqua	SC-Duplex beige, SC-Duplex beige
06413.x	OM2	orange	SC-Duplex beige, SC-Duplex beige
06423.x	OM1	orange	SC-Duplex beige, SC-Duplex beige







Duplex Jumper SC-ST

Features of EFB fiber optic patch cables

Tension relief reinforced with aramid yarn Halogen-free and flame-retardant sheath according to IEC-60754-2, IEC-60332-1 and IEC-61034

EFB fiber optic connectors meet the minimum quality class Grade B/2 according to IEC-61753-1 for singlemode and Grade A/1 for multimode according to IEC 61753-122-2 (UPC cut)

100% tested and with individual measurement report

Stock length: 0,5 - 1,0- 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 m

Cable type:	I-V(ZN) H
Cable Construction:	Duplex
Jacket Material:	LSZH
Cable Ø:	3.0 mm
Operating Temperatur	re:-20 – 75 °C
Storage Temperature:	20 – 85 °C

ArtNo.	Category	Colour outer sheath	Connector
02073.x	OS2 acc. to ITU-T G.652.D	yellow	SC-Duplex blue, ST
00347.x	OM4	erica-violet	SC-Duplex beige, ST
07353.x	OM3	aqua	SC-Duplex beige, ST
06353.x	OM2	orange	SC-Duplex beige, ST
06363.x	OM1	orange	SC-Duplex beige, ST





Duplex Jumper ST-ST

Features of EFB fiber optic patch cables

Tension relief reinforced with aramid yarn Halogen-free and flame-retardant sheath according to IEC-60754-2,

IEC-60332-1 and IEC-61034 EFB fiber optic connectors meet the minimum quality class Grade B/2 according to IEC-61753-1 for singlemode and Grade A/1 for multimode according to IEC 61753-122-2 (UPC cut)

100% tested and with individual measurement report

Stock length: 0,5 - 1,0- 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 m

Cable type:	I-V(ZN) H
Cable Construction:	Duplex
Jacket Material:	LSZH
Cable Ø:	3.0 mm
Operating Temperature	e:-20 – 75 °C
Storage Temperature:	20 – 85 °C

ArtNo.	Category	Colour outer sheath	Connector
02003.x	OS2 acc. to ITU-T G.652.D	yellow	ST , ST
00348.x	OM4	erica-violet	ST , ST
07013.x	OM3	aqua	ST , ST
06013.x	OM2	orange	ST , ST
06023.x	OM1	orange	ST , ST



Duplex Jumper E2000®-E2000®

Cable type:......I-V(ZN) H
Cable Construction:.....Duplex
Jacket Material:....LSZH
Cable Ø:......3.0 mm
Operating Temperature:-20 – 75 °C
Storage Temperature:-20 – 85 °C

Stock length: 0,50 - 1,0 - 2,0 - 3,0 - 5,0 -7,5 - 10 - 15 - 20 - 25 - 30 m

ArtNo.	Category	Colour outer sheath	Connector
00933.x	OS2 acc. to ITU-T G.652.D	yellow	E2000° 8° green, E2000° 8° green



Duplex Jumper E2000®-SC

Cable type:	I-V(ZN) H
Cable Construction:	Duplex
Jacket Material:	LSZH
Cable Ø:	3.0 mm
Operating Temperature	e:-20 – 75 °C
Storage Temperature:	20 – 85 °C

Stock length: 1,0 - 2,0 - 3,0 - 5,0 - 10 m

ArtNo.	Category	Colour outer sheath	Connector
00939.x	OS2 acc. to ITU-T G.652.D	yellow	E2000® 8° green, SC-Duplex blue
00940.x	OS2 acc. to ITU-T G.652.D	yellow	E2000® blue, SC-duplex blue



Duplex Jumper E2000®-LC

Cable type:I-V(ZN) H
Cable Construction:Duplex
Jacket Material:LSZH
Cable Ø:2.0 mm
Operating Temperature: -20 - 75 °C
Storage Temperature:20 – 85 °C

Stock length: 1,0 - 2,0 - 3,0 - 5,0 - 10 m

ArtNo.	Category	Colour outer sheath	Connector
00937.x	OS2 acc. to ITU-T G.652.D	yellow	E2000® 8° green, LC-Duplex blue
00389.x	OS2 acc. to ITU-T G.652.D	yellow	LC-Duplex 8° green, E2000® 8° green
00364.x	OS2 acc. to ITU-T G.652.D	yellow	LC-Duplex blue, E2000® blue
00341.x	OM4	erica-violet	LC-Duplex beige, E2000® black
00315.x	OM3	aqua	LC-Duplex beige, E2000® black



Duplex Jumper E2000®-ST

Cable type:	I-V(ZN) H
Cable Construction:	Duplex
Jacket Material:	LSZH
Cable Ø:	3.0 mm
Operating Temperatu	ure:-20 – 75 °C
Storage Temperature	::20 – 85 °C

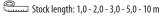
Stock length: 1,0- 2,0 - 3,0 - 5,0 - 10 m

ArtNo.	Category	Colour outer sheath	Connector
00920.x	OS2 acc. to ITU-T G.652.D	yellow	E2000® 8° green, ST
00909.x	OS2 acc. to ITU-T G.652.D	yellow	E2000® blue, ST



Simplex Jumper LC-LC

Cable type:	I-V(ZN) H
Cable Construction:	simplex
Jacket Material:	LSZH
Cable Ø:	2.0 mm
Operating Temperature	e:-20 – 75 °C
Storage Temperature: .	20 – 85 °C



ArtNo.	Category	Colour outer sheath	Connector
02519.x	G657A2 acc. to ITU-T G.657	yellow	LC 8° green, LC 8° green
01403.x	G657A2 acc. to ITU-T G.657	yellow	LC 8° green, LC blue
00948.x	G657A2 acc. to ITU-T G.657	yellow	LC blue, LC blue



Simplex Jumper LC-SC

Cable type:	I-V(ZN) H
Cable Construction:	simplex
Jacket Material:	LSZH
Cable Ø:	2.0 mm
Operating Temperature	e:-20 – 75 °C
Storage Temperature:	20 – 85 °C

Stock length: 1,0 - 2,0 - 3,0 - 5,0 - 10 m

ArtNo.	Category	Colour outer sheath	Connector
02531.x	G657A2 acc. to ITU-T G.657	yellow	SC 8° green, LC 8° green
00946.x	G657A2 acc. to ITU-T G.657	yellow	SC 8° green, LC blue
00947.x	G657A2 acc. to ITU-T G.657	yellow	LC blue, SC blue



Simplex Jumper SC-SC

Cable type:	I-V(ZN) H
Cable Construction:	simplex
Jacket Material:	LSZH
Cable Ø:	3.0 mm
Operating Temperatu	ure:-20 – 75 °C
Storage Temperature	::20 – 85°C

Stock length: 1,0 - 2,0 - 3,0 - 5,0 - 10 m

ArtNo.	Category	Colour outer sheath	Connector
00944.x	G657A2 acc. to ITU-T G.657	yellow	SC 8° green, SC 8° green
00928.x	G657A2 acc. to ITU-T G.657	yellow	SC 8° green, SC blue
01323.x	G657A2 acc. to ITU-T G.657	yellow	SC blue, SC blue



Simplex Jumper E2000®/APC-E2000®/APC

Cable type:	I-V(ZN) H
Cable Construction:	Simplex
Jacket Material:	LSZH
Cable Ø:	3.0 mm
Operating Temperature	e:-20 – 75 °C
Storage Temperature	-20 - 85 °C

Stock length: 0,50 - 1,0 - 2,0 - 3,0 - 5,0 - 10 - 15 - 20 m

ArtNo.	Category	Colour outer sheath	Connector
00833.x	OS2 acc. to ITU-T G.652.D	yellow	E2000° 8° green, E2000° 8° green



Simplex Jumper E2000®/APC-LC

Cable type:	.I-V(ZN) H
Cable Construction:	.Simplex
Jacket Material:	LSZH
Cable Ø:	.3.0 mm
Operating Temperature	:-20 – 75 °C
Storage Temperature:	20 – 85 °C

Stock length: 1,0 - 2,0 - 3,0 - 5,0 - 10 m

ArtNo.	Category	Colour outer sheath	Connector
01420.x	G657A2 acc. to ITU-T G.657	yellow	E2000® 8° green, LC blue
00863.x	G657A2 acc. to ITU-T G.657	yellow	E2000® blue, LC blue



Simplex Jumper E2000®/APC-SC

Cable type:	I-V(ZN) H
Cable Construction:	Simplex
Jacket Material:	LSZH
Cable Ø:	3.0 mm
Operating Temperatur	re:-20 – 75 °C
Storage Temperature:	20 – 85 °C

Stock length: 1,0 - 2,0 - 3,0 - 5,0 - 10 m

ArtNo.	Category	Colour outer sheath	Connector
00923.x	G657A2 acc. to ITU-T G.657	yellow	E2000® 8° green, SC blue
00839.x	G657A2 acc. to ITU-T G.657	yellow	E2000® blue, SC blue







Equipped splice cassette with coloured stripped pigtails

Equipped splice cassette with pigtails in the categories OM3, OM4, OM5, OS2 and OS2/APC. These are available in LC and SC mating faces. The pigtails are stripped, inserted into the splice cassette and have a length of 80cm outside the cassette in order to be able to implement the cable routing in the splice box correspondingly easily. The pigtails used are colour-coded according to VDE-0888 with a solid-coloured coating and 12-coloured jacket. The measurement protocols of the individual fibers are enclosed in the packaging unit. In addition, the crimp splice holder (12 splices) is pre-assembled in the splice cassette, the shrink splice protector (2x à 6 splices) is enclosed in the packaging unit.



Equipped splice cassette with coloured stripped pigtails, LC

ArtNo.	Category	Colour	Connector
53100.207	OS2 acc. to ITU-T G.652.D	12-colours	LC blue
53100.206	OM5	12-colours	LC lime green
53100.205	OM4	12-colours	LC erica-violet
53100.204	OM3	12-colours	IC agua

Equipped splice cassette with coloured stripped pigtails, LC/APC

ArtN	lo.	Category	Colour	Connector
53100	0.212	OS2 acc. to ITU-T G.652.D	12-colours	LC/APC green

Equipped splice cassette with coloured stripped pigtails, SC

ArtNo.	Category	Colour	Connector
53100.211	OS2 acc. to ITU-T G.652.D	12-colours	SC blue
53100.210	OM5	12-colours	SC lime green
53100.209	OM4	12-colours	SC erica-violet
53100.208	OM3	12-colours	SC aqua

Equipped splice cassette with coloured stripped pigtails, SC/APC

ArtNo.	Category	Colour	Connector
53100.213	OS2 acc. to ITU-T G.652.D	12-colours	SC/APC green

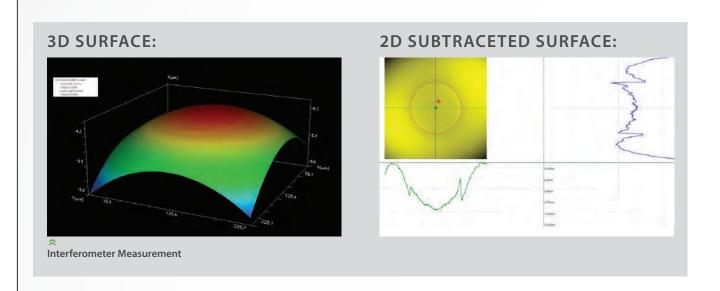
Explanation of connectors and pigtails				
Connector APC green				
Connector Multimode	beige			
Connector Singlemode blue				
G657A bend optimized Singlemode Fiber				
OS2 Standard Singlemode Fiber				

Required accessories				
Splicing	Measurement			
Crimp splice protection Shrink splice protection Splice cassette Splice holder Fiber tools Splice unit Crimptool Heat oven Cleaning material	OTDR unit Attenuation measurement unit Cleaning material Fiber Checker Fiber microscope Launch fiber for OTDR Reference cords for attenuation measurement			

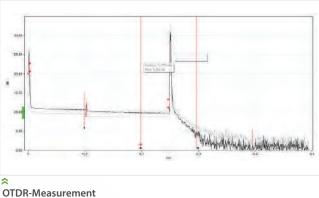


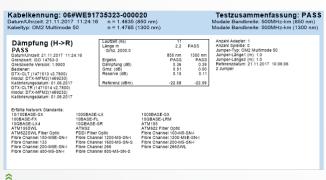
OUR SERVICE IN THE FIELD OF FIBER OPTIC CABLING

EFB-Elektronik offers various measurements for any kind of cablings of the portfolio. At the Headquarter in Bielefeld, interferometer measurements, OTDR measurements, Insertion Loss measurements or additional assessments of the connector end faces are carried out. The measured cables can be assigned via a serial number attached to the cable.









Insertion Loss Measurement

Connector endface inspection





1. DLOLWL-Dämpfung	IL measurement for FO Jumper inclusive, label with serial number, lead time for 200pcs. approx. 5 working days plus regular picking time
2. DLOLWL-OTDR	OTDR-measurement of FO Links inclusive label with serial number, lead time for 200pcs. approx. 3 working days plus regular picking time
3. DLOLWL-Interfero	Interferometer measurement for Connectors inclusive label with serial number, lead time for 200pcs. approx. 3 working days plus regular picking time
4. DLOWICKEL2	Assembling of label on both sides of cable, lead time for 200pcs. approx. 3 working days plus regular picking time

 $\ensuremath{^*}$ lead time for other quantities on request

OUR SERVICES AT A GLANCE:



PACKAGING & LABELS

- Individually packed in a neutral polybag or
- With a label with your logo



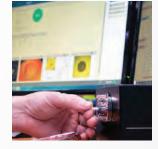
CABLE CUTTING & CABLE PRINTING

- Cable cutting to individual cable lengths
- Individual printing of the cables



FIBER OPTIC DUPLEX CLIPS

- 1:1 plugged clips or
- Cross Over



MEASUREMENTS INCLUDED WRAP-AROUND LABEL & SERIAL NUMBER

Measurements for trunk, patch & fiber optic cables incl. test report and wrap-around label with serial number for each cable

Fiber Pigtails

EFB-Elektronik offers a wide portfolio of fiber optic pigtails in the categories Multimode (OM1, OM2, OM3, OM4, OM5) and Singlemode (OS2). These are available in single colour and 12-coloured version as well as with different connectors such as SC, LC, E2000 $^{\circ}$ etc. The colour-code for the 12-coloured fiber pigtails is according to DIN VDE 0888 and the fiber is dyed accordingly except for the 250 μ fiber. The fiber pigtails of EFB-Elektronik have a semi tight buffer as standard and are therefore very easy to use.

General Characteristics of Fiber Pigtails:

Max. Tension 3 N Min. Bending Readius Static 9 mm Min. Bending Readius Dynamic 18 mm **Outer Diameter** 0.9 mm Jacket Material LSZH 2,0 m Length **Operating Temperature** -20 – 70 °C Cable Conform to Standard IEC60793-2





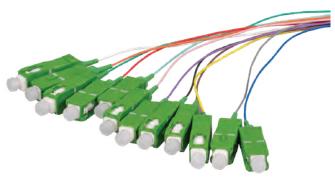
Pigtails - 12-coloured						
	LC	SC	ST	LC/APC	SC/APC	E2000°/APC
OS2 acc. to ITU-T G.652.D	00481.2	01022.2	01004.2	00482.2	01015.2	00769.2
OM5	03483.20M5	03326.20M5				
OM4	03483.2	03483.2 03326.2 03307.2				
OM3	03482.2	03325.2	03305.2	APC polish is not used in Multimode catergories		e catergories
OM2	03484.2	03324.2	03304.2			



pigtails - single coloured								
	LC	SC	ST	E2000®	LC/APC	SC/APC	E2000®/APC	
OS2 acc. to ITU-T G.652.D	00480.2	01023.2	01003.2	00779.2	00485.2	01019.2	00770.2	
OM5	03686.20M5	03685.20M5						
OM4	03686.2	03685.2	03687.2					
OM3	03681.2 03623.2 03603.2 APC polish is not		APC polish is not used	sh is not used in Multimode catergories				
OM2	03481.2	03323.2	03303.2	.2				
OM1	03491.2	03333.2	03313.2					

Achievable return loss for different end face designs				
	Shortcut	Description	Reflectivity	Return loss
PC		Physical Contact	<-30 dB	> 30 dB
SPC		Super Physical Contact	<-40 dB	> 40 dB
UPC		Ultra Physical Contact	<-50 dB	> 50 dB
APC		Angled Physical Contact	<-60 dB	> 60 dB

Find out more about us: www.efb-elektronik.de/en





FTTH Fiber Pigtails

The fiber pigtail has a primary coating (900μ) in the colour of the respective category (see table). The colour of the primary coating is equal to the colour of the secondary coating. A numeric connector coding 1 .. 12 simplifies the allocation of the ports.

The pigtails can be ordered separately.

Because the standard batch size for ordering pigtails is 12, in a polybag are 12 pigtails. Each connector is packed separatly for an easy remove of each pigtail. Every PU contains an individual measuring protocol.

FTTH Fiber Pigtails, LC

ArtNo.	Category	Colour	Connector
FTTH-PIGTAIL-LCA1	G657A2 acc. to ITU-T G.657	yellow	LC APC green
FTTH-PIGTAIL-LC1	G657A2 acc. to ITU-T G.657	yellow	LC blue
FTTH-PIGTAIL-LCA12	G657A2 acc. to ITU-T G.657	12-colours	LC APC green
FTTH-PIGTAIL-LC12	G657A2 acc. to ITU-T G.657	12-colours	LC blue

FTTH Fiber Pigtails, SC

ArtNo.	Category	Colour	Connector
FTTH-PIGTAIL-SCA1	G657A2 acc. to ITU-T G.657	yellow	SC APC green
FTTH-PIGTAIL-SC1	G657A2 acc. to ITU-T G.657	yellow	SC blue
FTTH-PIGTAIL-SCA12	G657A2 acc. to ITU-T G.657	12-colours	SC APC green
FTTH-PIGTAIL-SC12	G657A2 acc. to ITU-T G.657	12-colours	SC blue

	Mean Attenuation [dB]	Comments
≤ 0,15	≤ 0,08	
≤ 0,25	≤ 0,12	
≤ 0,50	≤ 0,25	
≤ 1,00	≤ 0,50	Used for some mul- tifiber connectors
	≤ 0,25 ≤ 0,50	7% of samples) [dB] [dB] ≤ 0,15 ≤ 0,08 ≤ 0,25 ≤ 0,12 ≤ 0,50 ≤ 0,25

Singlemode return loss grades at 1310nm and 1550nm					
Return loss grade	Return loss (mated) [dB]	Comments			
1	≥ 60	Unmated ≥ 55dB			
2	≥ 45				
3	≥ 35				
4	≥ 25				

Quality classes acc. to IEC 61753-222-2 Multimode attenation grade at 850nm and 1300nm					
Attenuation grade	Max. Attenuation (≥97% of samples) [dB]	Mean Attenuation [dB]	Comments		
А	≤ 0,75	≤ 0,25	≤ 0,30 dB against reference		
В	≤ 1,00	≤ 0,35			
C	≤ 1,50	≤ 0,50			

Return loss grade	Return loss (mated) [dB]	Comments
1	≥ 20	



Fiber connector and accessories P. 91 Fiber adapter P. 92 - 94 Field installable connector P. 95

// YOU MAY ALSO BE INTERESTED IN:

Fiber Pigtails	P. 88 - 89
Jumper	P. 77-84
Splice Boxes	P. 42- 47
FTTx Boxes	P. 23 - 24
Fiber Optic Cable Pre-Assembled	P. 70
Cleaning Tools	P. 96





LC Connector

PU:.....100, Price/ pcs.

ArtNo.	Suitable for type of fiber	APC-version	Colour	Cable Ø
53232.7	Singlemode	Yes	green	2.0 mm
53232.6	Singlemode	No	blue	2.0 mm
53233.8	Multimode	No	beige	2.0 mm
53233.9	Multimode	No	beige	3.0 mm
53232.5	Singlemode	No	blue	3.0 mm

Accessories

ArtNo.	Desription
53234.6	Universal clip for LC Duplex transparent



SC Connector

PU:.....100, Price/ pcs.

ArtNo.	Suitable for type of fiber	APC-version	Grommet	Colour	Cable Ø
53214.1	Singlemode	Yes		green	2.0 mm
53214.2	Singlemode	Yes		green	2.8 mm
53206.11	Multimode	No	black	beige	3.0 mm
53206.12	Multimode	No	red	beige	3.0 mm

Accessories

ArtNo.	Description		
53205.31	Universal Clip blue for SC-Duplex		
53205.30	Universal Clip beige for SC-Duplex		



FC Connector Set with plug, ferrule and boot

PU:.....100, Price/ pcs.

ArtNo.	Suitable for type of fiber	APC-version	Colour	Cable Ø
53227.5	Singlemode	yes	green	3.0 mm
53227.3	Singlemode	No	black	3.0 mm
53227.4	Singlemode	No	red	3.0 mm
53216.3	Multimode	No	black	3.0 mm



ST Connectors

PU:.....100, Price/ pcs.

ArtNo.	Suitable for type of fiber	APC-version	Colour	Cable Ø
53210.3	Singlemode	No	metal	3.0 mm
53202.3	Multimode	No	metal	3.0 mm



Boot, flexible, white

Flexible boot

Bending 90° to the right side and 90° to the left side possible Holds the position

PU:.....100, Price/ pcs.

ArtNo.	Colour	Type of connector	Cable Ø
53210.1	white	LC	2.0 mm
53210.2	white	SC	2.0 mm



Boots for ST and SC Connectors

PU:.....100, Price/ pcs.

ArtNo).	Colour	Type of connector	Cable Ø
53202.	31	black	ST/SC	0.9 mm
53202.	32	black	ST	3.0 mm
53202.	33	red	ST	3.0 mm



LC Duplex Adapter one piece with Plastic housing

Type of connector connection 1:LC-Duplex
Type of connector connection 2:LC-Duplex
Type of fastening:.....screw/lock
Design:.....SC-Simplex
Accessories:Self-Tapping Screw
Material sleeve:....ceramic
PU:.....12, Price/ pcs.



ArtNo.	Suitable for type of fiber	Colour	Туре
53343.31	Singlemode	green	LC /APC
53350.31	Singlemode	blue	LC/PC
53334.10M5	Multimode	lime green	LC/PC
53334.1	Multimode	erica-violet	LC/PC
53357.31	Multimode	aqua	LC/PC
53348.32	Multimode	beige	LC/PC



LC quad Adapter one piece with Plastic housing

Type of connector connection 1:LC-quad
Type of connector connection 2:LC-quad
Type of fastening:.....screw/lock
Design:....SC-Duplex
Accessories:Self-Tapping Screw
Material sleeve:....ceramic
PU:.....12, Price/ pcs.



ArtNo.	Suitable for type of fiber	Colour	Туре
53353.31	Singlemode	green	LC/APC
53353.3	Singlemode	blue	LC/PC
53335.1	Multimode	erica-violet	LC/PC
53355.32	Multimode	aqua	LC/PC
53352.3V1	Multimode	beige	LC/PC





LC Duplex Adapter with Metal housing

Type of connector connection 1:LC-Duplex
Type of connector connection 2:LC-Duplex
Type of fastening:.....screw/lock
Design:....SC-Simplex
Accessories:Metric Screw
Material sleeve:....ceramic
PU:.....12, Price/ pcs.

	_		
ArtNo.	Suitable for type of fiber	Colour	Туре
53343.1	Singlemode	metal	LC/PC



LC quad Adapter with Metal housing

Type of connector connection 1:LC-quad
Type of connector connection 2:LC-quad
Type of fastening:.....screw/lock
Design:....SC-duplex
Accessories:Metric Screw
Material sleeve:...ceramic
PU:......12, Price/ pcs.

ArtNo.	Suitable for type of fiber	Colour	Туре
53353.1	Singlemode	metal	LC/PC

Adapter Singlemode one piece, with internal Shutter

Suitable for type of fibre: Singlemode
Material sleeve:.....ceramic
Colour:.....green
PU:.......12, Price/ pcs.









ArtNo.	Type of connector connection 1	Type of connector connection 2	Type of fastening	Design	Accessories	Type of housing
53343.32	LC-Duplex	LC-Duplex	screw/lock	SC-Simplex	Self-Tapping Screw	With flange
53519.2	LC-Duplex	LC-Duplex	lock	SC-Simplex		Flangeless
53353.32	LC-Quad	LC-Quad	screw/lock	SC-Duplex	Self-Tapping Screw	With flange
53316.36	SC-Duplex	SC-Duplex	screw/lock	SC-Duplex	Self-Tapping Screw	With flange

rtNo.	Description
30550.1-50	Tapping screw ST2,5 50pieces DIN7971, for plastic adapter
30715.1-200	Screw, tinned with nut M2x8,PU 200, for metal adapter
53217.1	Laser protection, LC-Duplex
37501WS.1	Keystone Adapter-Frame, white, for flangeless adapter
7501SW.1	Keystone Adapter-Frame, black, for flangeless adapter

Adapter colours and its cl	asses	-\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
Singlemode	Multimode	
blue = Singlemode PC green= Singlemode APC	OM5= lime green OM4= erica-violet OM3= aqua OM2= beige OM1= beige	













LC Duplex Adapter flangeless one piece with Plastic housing

Type of connector connection 1:LC-Duplex Type of connector connection 2:LC-Duplex Type of fastening:....snap-in Design:....SC-Simplex

Material sleeve:.....ceramic
PU:.....12, Price/ pcs.

ArtNo.	Suitable for type of fiber	Colour	Туре
53519.1	Singlemode	green	LC/APC
53515.1	Singlemode	blue	LC/PC
53517.1	Multimode	erica-violet	LC/PC
53516.1	Multimode	aqua	LC/PC

SC Simplex Adapter flangeless one piece with Plastic housing

Type of connector connection 1:SC
Type of connector connection 2:SC
Type of fastening:......snap-in
Design:.....SC-Simplex
Material sleeve:.....ceramic
PU:......12, Price/ pcs.

ArtNo.	Suitable for type of fiber	Colour	Туре
53518.1	Singlemode	green	SC/APC
53511.1	Singlemode	blue	SC/PC
53513.1	Multimode	erica-violet	SC/PC
53512.1	Multimode	aqua	SC/PC
53510.1	Multimode	beige	SC/PC



SC Duplex Adapter one piece with Plastic housing

Type of connector connection 1:SC-duplex Type of connector connection 2:SC-duplex

Type of connector connector 2:sc-duplex
Type of fastening:.....screw/lock
Design:.....SC-duplex
Accessories:Self-Tapping Screw
Material sleeve:.....ceramic
PU:.....12, Price/ pcs.

ArtNo.	Suitable for type of fiber	Colour	Туре
53316.35	Singlemode	green	SC/APC
53316.3	Singlemode	blue	SC/PC
53333.10M5	Multimode	lime green	SC/PC
53333.1	Multimode	erica-violet	SC/PC
53356.1	Multimode	aqua	SC/PC
53303.32	Multimode	beige	SC/PC



SC Duplex Adapter with Metal housing

Type of connector connection 1:SC-duplex
Type of connector connection 2:SC-duplex
Type of fastening:.....screw/lock
Design:....SC-duplex
Accessories:Metric Screw
Material sleeve:....ceramic

PU:.....12, Price/ pcs.

ArtNo.	Suitable for type of fiber	Colour	Туре
53319.3	Singlemode	metal	SC/APC
53316.34	Singlemode	metal	SC/PC
53312.34	Multimode	metal	SC/PC





SC Simplex Adapter one piece with Plastic housing

Type of connector connection 1:SC
Type of connector connection 2:SC
Type of fastening:.....screw/lock
Design:....SC-Simplex
Accessories:...Self-Tapping Screw
Material sleeve:...ceramic
PU:.....12, Price/ pcs.

ArtNo.	Suitable for type of fiber	Colour	Туре
53302.32	Singlemode	green	SC/APC
53302.31	Singlemode	blue	SC/PC
53302.33	Multimode	beige	SC/PC



ST / SC Duplex Hybridadapter with Plastic housing

Type of connector connection 1:ST-duplex
Type of connector connection 2:SC-duplex
Type of fastening:....screw/lock
Design: SC-duplex

Design:.......Self-Tapping Screw
Material sleeve:......eeramic

Multimode

7 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -					
ArtNo.	Suitable for type of fiber	Colour	Туре		
53320.3	Singlemode	blue	PC		

beige

PC

PI I·

53305.31



ST / SC Duplex Hybridadapter with Metal housing

Type of connector connection 1:ST-duplex
Type of connector connection 2:SC-duplex
Type of fastening:.....screw/lock
Design:....SC-duplex
Accessories:Metric Screw
Material sleeve:...ceramic
PU:.....12, Price/ pcs.

ArtNo.	Suitable for type of fiber	Colour	Туре
53320.34	Singlemode	metal	PC
53307.34	Multimode	metal	PC



ST Simplex Adapter with Metal Housing

Type of connector connection 1:ST
Type of connector connection 2:ST
Type of fastening:......screw/lock
Design:.....ST
Material sleeve:.....ST
PU:.....12, Price/ pcs.

ArtNo.	Suitable for type of fiber	Colour	Туре
53103.3	Singlemode	metal	ST/PC
53102.32	Multimode	metal	ST/PC





E2000® Simplex Adapter flangeless

Type of connector connection 1:E2000®
Type of connector connection 2:E2000®
Type of fastening:......snap-in
Design:.....SC-Simplex
Material sleeve:.....ceramic
PU:......12, Price/ pcs.

ArtNo.	Suitable for type of fibre	Colour	Туре
53526.1	Singlemode	green	E2000/APC



E2000® Simplex Adapter

Type of connector connection 1:E2000°
Type of connector connection 2:E2000°
Type of fastening:......screw/lock
Design:......SC-Simplex
Accessories:....Metric Screw
Material sleeve:....ceramic
PU:......12, Price/ pcs.

ArtNo.	Suitable for type of fiber	Colour	Туре
53532.1V2	Singlemode	green	E2000/APC
53531.1	Singlemode	blue	E2000/PC
53529.1V2	Multimode	beige	E2000/PC





E2000® Duplex compact Adapter

Type of connector connection 1:E2000® compact Type of connector connection 2:E2000® compact Type of fastening:....screw/lock Accessories:.....Metric Screw

Material sleeve:.....ceramic
PU:.....12, Price/ pcs.

ArtNo.	Suitable for type of fiber	Colour	Туре
53523.1	Singlemode	green	E2000/APC
53525.1	Multimode	aqua	E2000/PC

Accessories for all items on this double page		
ArtNo.	Description	
80550.1-50	Tapping screw ST2,5 50pieces DIN7971, for plastic adapter	
80715.1-200	80715.1-200 Screw, tinned with nut M2x8,PU 200, for metal adapter	
37501WS.1	Keystone Adapter-Frame, white, for flangeless adapter	
37501SW.1	Keystone Adapter-Frame, black, for flangeless adapter	





MTP® / MPO Adapter, housing black

Type of connector connection 1:MTP/MPO
Type of connector connection 2:MTP/MPO
Type of fastening:.....screw/lock
Design:.....SC-Simplex
Material sleeve:.....plastic
PU:......12, Price/ pcs.

ArtNo.	Suitable for type of fiber	Colour	Туре
53458.1V2	Singlemode and Multimode 50/125	black	PC/ APC
53458.1	Singlemode and Multimode 50/125	black	PC/ APC

Accessory

ArtNo.	Description
39989.4	Ferrule-Cleaner MPO II, push-pull-technology







Field Installable Connector with Fiber holder

ArtNo.	Type of connector	Suitable for type of fiber	APC-version	Colour	Cable Ø
53196.1	LC	Singlemode	No	blue	0.9 mm
53197.1	LC	Multimode 0M3	No	aqua	0.9 mm
53198.1	LC	Multimode 0M2	No	black	0.9 mm
53199.1	SC	Singlemode	No	blue	0.9 mm
53200.1	SC	Multimode 0M3	No	aqua	0.9 mm
53201.1	SC	Multimode 0M2	No	black	0.9 mm
53204.1	SC/APC	Singlemode	True	green	0.9 mm



Attenuator

For increasing the attenuation of fiber optic lines To prevent overmodulation at short distances SPC = Return Loss max. 45 dB APC = Return Loss max. 60 dB Suitable for CWDM Attenuation in dB: 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 10 - 15 - 20

Singlemode

ArtNo.	Suitable for type of fiber	Material housing	Туре
53360.x	Singlemode	metal	SC/PC
533680.x	Singlemode	plastic	LC/PC
53361.x	Singlemode	metal	SC/APC

Multimode

ArtNo.	Suitable for type of fiber	Material housing	Туре
53365.x	Multimode	metal	SC/SPC



Fiber Cleaner	P. 97 - 99
Fiber Checker	P. 100
Fiber Tools	P. 101 - 102
Fiber Toolsets	P. 103

FIBER CLEANIN & TOOLS //

// YOU MAY ALSO BE INTERESTED IN:

Measurement devices	P. 109
Jumper	P. 77 - 84
Transceiver	P. 330
FTTx	P. 22





Reel Cleaner(new Version)

For unplugged fiber optic connectors, for cleaning the end faces (not for MTP/MPO or similar). The washed, ultra-clean microfiber cloth captures dirt and other contaminants. The microfiber cloth is tough and lint-free. Eliminates electrostatic charge.

ArtNo.	Description
39962.2	Reel Cleaner for fiber connector with 2,5mm or 1,25mm ferrule
39962.2A	Reel Cleaner refill pack of 6





Cleaner, FCT-C410" for FO Connectors

Uses both sides of the cloth Minimizes static attraction

Ultra clean micro–fiber cloth captures debris and other contamination The cloth is robust, it does not fray or leave any fibrous materials behind Easy to remove the cleaning reel without cause any contamination More than 450 cleanings per unit Dry cleaning

Suitable connector includes FC, SC simplex, ST, LC, MU simplex, D4, DIN

ArtNo.	Description
39961.1	Cleaner,,FCT-C410" for FO connector
39961.1A	Exchange roll for FCT-C410, single part

Accessory	ccessory		
ArtNo.	Description		
08303L1400M3	Trunk cable U-DQ(ZN)BH 4G 50/125, LC/LC 0M3 140m		
08303L500M3	Trunk cable U-DQ(ZN)BH 4G 50/125, LC/LC 0M3 50m		
08303L1000M3	Trunk cable U-DQ(ZN)BH 4G 50/125, LC/LC 0M3 100m		
08303L1000M4	Trunk cable U-DQ(ZN)BH 4G 50/125, LC/LC 0M4 100m		
08303L1200M3	Trunk cable U-DQ(ZN)BH 4G 50/125, LC/LC 0M3 120m		
00319.20	Duplex Jumper LC-LC 50/125μ, OM4, LSZH, erica violet, 2.0mm, 20m		
00319.200M5	Duplex Jumper LC-LC 50/125μ, OM5, LSZH, lime green, 2.0mm, 20m		
00318.20M5	Duplex Jumper SC-SC 50/125µ, OM5, LSZH, lime green, 3.0mm, 2m		
00318.3	Duplex Jumper SC-SC 50/125µ, OM4, LSZH, erica violet, 3.0mm, 3m		



Ferrule Cleaner for MPO-Connectors (new version)

Dry cloth cleaning tools specially designed to clean multi fiber connectors Residing in an adapters, faceplate or bulkhead

Dust cap of the cleaning tool acts as an adapters for cleaning unmated connectors

Cleaning tool for MPO Adapter/ Connector

Disposable with 525+ cleanings per unit

Made from antistatic resins

Cleaning micro fibers are densely stranded and debris free

Cleaning system rotates about 180° for a full sweep

ArtNo.	Description
39989.4	Ferrule Cleaner MPO II, push-pull-technology

Ferrule Cleaner for Simplex Connectors

IBC dry cloth cleaning tools specially designed to clean single fiber connectors

Residing in an adapters, faceplate or bulkhead

Dust cap of the cleaning tool acts as an adapters for cleaning unmated connectors

39989.2: Cleaning tool for 1.25mm ferrules LC and MU with PC and APC polishes

Disposable with 525+ cleanings per unit

Made from antistatic resins

Cleaning micro fibers are densely stranded and debris free

Cleaning system rotates about 180° for a full sweep

ArtNo.	Description
39989 2	Ferrule Cleaner for LC MII for PC & APC 1 25mm ferrule

Ferrule Cleaner for SC,FC and ST Simplex Connector with 2.5 mm ferrule, Standard

 IBC dry cloth cleaning tools specially designed to clean single fiber connectors

Residing in an adapters, faceplate or bulkhead

Dust cap of the cleaning tool acts as an adapters for cleaning unmated

39988.2: Cleaning tool for 2.5mm ferrules E2000°, SC, FC and ST with PC and APC polishes

Disposable with 525+ cleanings per unit

Made from antistatic resins

Cleaning micro fibers are densely stranded and debris free

Cleaning system rotates about 180° for a full sweep

ArtNo.	Description
39988.2	Ferrule Cleaner for SC EC and ST-adapters for 2 5mm ferrule





Ferrulen Cleaner for E2000®, SC, FC, ST

Dry cloth cleaning tools specially designed to clean single fiber connectors Residing in an adapters, faceplate or bulkhead

Dust cap of the cleaning tool acts as an adapters for cleaning unmated connectors

Cleaning tool for 2.5mm ferrules E2000®, SC, FC and ST with PC and APC polishes

Disposable with 525+ cleanings per unit

Made from antistatic resins

Cleaning micro fibers are densely stranded and debris free

Cleaning system rotates about 180° for a full sweep

ArtNo.	Description
39989.5	Ferrule cleaner for E2000°, SC, FC, ST with 2.5 mm ferrule



Ferrule cleaner for LC-Duplex Connector and Jacks

- Cleans connectors on base of LC-Duplex in PC/APC
- More than 500 cleanings per unit
- \bullet Cleaning cloth made from high density woven micro fibers is washed and debris free
- · Adapter tip doubles as dust protection

ArtNo.	Description
	Ferrule-Cleaner for LC-Duplex PC/APC

Miller® Fiber Cleaning Tapes

25 non-linting cleaning cloths Alcohol-impregnated, 91% isopropyl and 9% deionized water For fiber cleaning after stripping or for cleaning ferrules

ArtNo.	Description
39926.1	Miller® Fiber Cleaning Tapes



Cleaning Sticks

For cleaning optical fiber connectors at difficult to reach places in the adapter

The special fabric absorbs and retains dirt Cleaning without alcohol

PCU 10 pieces

ArtNo.	Description
39975.1	Stick Cleaner 1.25mm packing unit 10 pcs.
39976.1	Stick Cleaner 2.50mm packing unit 10 pcs.



Alcohol dispenser without content

Suitable for cleaning liquid Pumping mechanism economical dose Seal of stainless steel Without content









Fiber Checker for Single- and Multimode 2.5 mm Ferrules

Suitable to check single-/multimode optical fibers Recognise faulty fiber optic components Identify and patching of fibers Operation distance ca. 3-5 km due to higher light power Due to 635 nm wavelength (visible red light) easier fault location Suitable 2.5 mm ferrule: DIN, E2000®, FC, SC, ST Temperature: -10° C $\sim 45^{\circ}$ C (operation), -40° C $\sim 70^{\circ}$ C (storage) Weight: 60 g (incl. batteries)

Scope of delivery:

Dimension: 167 mm x 12 mm

Fiber checker with dust cap, battery set (2 x AAA), plastic etui and instruction manual



Adapter for Fiber Checker

ArtNo.	Description	Detecting range
39990.1	Fiber Checker 3000 for SM and MM 2.5mm Ferrules	3 km
399900.1	Fiber Checker 5000 for Single- and Multimode 2.5mm Ferrules	5 km

Accessory

ArtNo.	Description
39990.2	Adapter for Fiber Checker adapted from 2,5 mm to 1,25 mm
399910.2	Adapter for POF to 1.5 mm and 2.2 mm





Fiber Checker for Single- and Multimode, for 1.25 mm and 2.5 mm Ferrules

The compact visual fault locator is an excellent tool for daily use of field,

industrial and laboratory fiber optic applications.

Suitable for testing single / multimode fiber optic cables, faulty fiber optic components, and identifying and patching fibers

The 630nm - 670nm wavelength (visible red light) makes it easier to locate faults

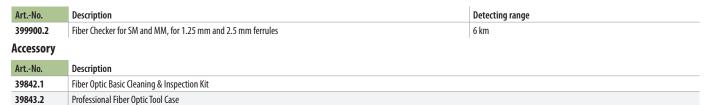
Range: measured up to 6km

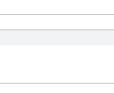
Matching 2.5 mm ferrules: DIN, E2000®, FC, SC, ST

Matching 1.25mm ferrules: LC

Delivery incl. dust cover, adapter for LC, SC and FC

Delivery without batteries







Miller® Fiber Stripper FO-103-S "One-Hole"

Miller® Fiber Stripper for stripping the primary coating 250 μm to 125 μm Precision-made 127 µm v-notch, no adjustment required Length: 137 mm Weight: 71 g

ArtNo.	Description
39956.1	Miller®Stripping-tool for stripping 250 µm coating





Miller® Fiber Stripper FO 103-T-250-J "Tri-Hole"

Miller® Fiber Stripper for stripping Primary coating 250 μm to 125 μm Secondary coating 900 μm to 250 μm 2-3 mm outer jacket Length: 137 mm Weight: 71 g

ArtNo.	Description
39901.1	Miller® Fiber Stripper,,Tri-Hole" FO 103-T-250



Stripping Tool 180µm - 300µm

For stripping the primary coating 250 μm to 125 μm

ArtNo.	Description
39923.1	Stripping tool, 180 um - 300 um primary coating 250 u to 125 u



Miller® Fiber Stripper CFS-2 "Dual-Hole"

Miller® Fiber Stripper with 140 μm hole for stripping the primary coating 250 μm to 125 μm

Second hole for stripping the 2-3 mm outer jacket

Ergonomic handles

Lock to hold tool closed when it is not in use

Length: 165 mm Weight: 119 g

ArtNo.	Description
39922.1	Miller CFS-2 stripping tool Dual-Hole,140 µm



Miller® Stripping Tool WS 5

Miller® Fiber Stripper for stripping the coating For diameter 0,6 - 0,8 - 1,0 - 1,3 - 1,6 - 2,0 - 2,6 mm Lock to hold tool closed when it is not in use Automatic return spring for ease of use and speed With cutting device Length: 159 mm

Weight: 108 g

ArtNo.	Description
39915.1	Miller stripping tool WS 5 for stripping from 0.6-2.6 mm



Stripping Tool 600µm - 1100µm

For stripping the secondary coating 900 μm to 250 μm

ArtNo.	Description
39923.2	Stripping tool, 600 µm - 1100 µm stripping the secundary coatings



Ceramic Fiber Optic Scribe

Ceramic fiber optic scribe
For removing Fiber overlength at the connector assembly
Both sides usable
Scratch fiber with scribe then split cautious
Dimensions: 50x50mm

ArtNo.	Description
39964.1	Fiber Optic Scribe Ceramic



Kevlar®-Cutting tool KS-1

Hardened blades made of carbon-molybdenum-vanadium steel Universal tool for cutting of Kevlar® or aramid yarn High-quality nylon case Length: 140 mm Weight: 79 g

ArtNo.	Description
39903.1	Kevlar®-Cutting tool KS-1, 140 mm



Insertion - Extraction Tool, IET Zange

With the RI-IET tool, fiber optic connectors can be easily removed and pluged from a fully connect splice box.

The tool is usable for LC and SC Simplex connectors as well as for Duplex connectors. It can also be used for MU and MTRJ connectors

Dimension: 223 mm x 70 mm

Weight: 100g

ArtNo.	Description
39953.1	Insertion - Extraction Tool, IET Zange, LC and SC



Cable Stripping Tool for round cable

Precision tool for stripping of the outer jacket of round cables Knife is adjustable for longitudinal cut, circumferential and spiral slitting "Tri-Action-Strip"

Adjustable cutting depth Length: 138 mm Weight: 100 g

ArtNo.	Description
39900.1	Cable Stripping Tool Miller® RCS-114
39900.2	Exchange blade for Miller® RCS-114 (39900.1)



Miller® Kevlar Cutter FOKC

Faster, more powerful cut with hardened blades and opening spring Serrated blades for clean, smooth cut Lightweight and compact, in a tried and tested quality Ergonomically shaped handles with non-slip plastic covering Length: 146 mm

Weight: 72 g

ArtNo.	Description
39902.1	Miller® Kevlar Cutter FOKC



Epoxy Resin, light 353

2-component adhesive for connector assembly double pack with separation guarantees correct mixing proportion Colour change to red after fully hardening

Weight: 4 gram
For about 100 connectors
Process time: max. 4 hours
Hardening time at 80°C: 15 min
Viscosity: 2000cps (typ)

ArtNo.	Description
53930.1	Epoxy Resin, light 353 4g, 2-component adhesiy



Fiber Optic Basic Cleaning & Inspection Kit

ArtNo.	Description	
39842.1	Fiber Optic Basic Cleaning & Inspection Kit	
Accessory		
ArtNo.	Description	
39988.2	Ferrule Cleaner for SC,FC and ST-adapters for 2.5mm ferrule	
39989.2	Ferrule Cleaner for LC, MU for PC & APC 1.25mm ferrule	

Basic Cleaning Kit consists of:
1x Bulb Blower (OD:42mm)
1x 2,5mm Fiber Optic Ferrule Cleaner
1x 1,25mm Fiber Optic Ferrule Cleaner
1x Fiber Optic Cleaning Cassette
1x Package of Lint free wiper
1x Fiber Optic Microscope for PC and APC 2.5mm connector Magnification microscope: 200x





Professional Fiber Optic Tool Case

This solid tool case made of aluminium contains everything that is neccessary for the daily work with optical fibers. Equal if cleaning, stripping or testing - a suitable tool is provided in professional quality.

Scope of delivery / Contents:

- 1 x Aluminium case for fiber optic tools, (W x H x D) approx. 345 x 100 x 260 mm (Art.-No. 39840.1)
- 1 x Fiber Checker Single- and Multimode for 1.25mm and 2.5 mm ferrules (Art.-No. 399900.2)
- 1 x QUICKLOADER Mini 6 in 1 multi-bit screwdriver (Art.-No. 39935.4)
- 1 x Chrome-plated side cutter Knipex 7005 180 (Art.-No. 39982.2)
- 1 x Pliers Knipex 3815 200 (Art.-No. 39984.1)
- $1\ x\ Stripping\ tool\ Miller^{\$}\ RCS-114\ for\ round\ cable\ 4.5-29\ mm\ longitudinal-cross-spiral\ cut\ (Art.-No.\ 39900.1)$
- 1 x Kevlar® cutter KS-1 140 mm (Art.-No. 39903.1)
- 1 x loose tube tool blue 3.2 6.3 mm (Art.-No. 39958.1)
- 1 x Stripping tool 180 μm 300 μm , for stripping the primary coating (Art. No. 39923.1)
- 1 x Miller® Fiber Stripper FO 103-T-250-J "Tri-Hole" (Art.-No. 39901.1)
- 1 x Alcohol dispenser container PE with swab humidifier, without contents (Art.-No. 39920.2)
- 1 x Cleaner "FCT-C410" for fiber optic connectors (Art.-No. 39961.1)
- 1 x Ferrule cleaner for ST, SC and FC for PC&APC 2.5 mm ferrules (Art.-No. 39988.2)
- 1 x Ferrule cleaner for LC and MU for PC&APC 1.25 mm ferrules (Art.-No. 39989.2)
- 10 x Stick Cleaner for 2.50 mm sleeves (Art.-No. 39976.1)
- 10 x Stick Cleaner for 1.25 mm sleeves (Art.-No. 39975.1)
- 25 x Miller® fiber cleaning tapes, alcohol-soaked (Art.-No. 39926.1)





ArtNo.	Description
39843.2	Professional Fiber Optic Tool Case

Accessory

Accessory	iccessory		
ArtNo.	Description		
39988.2	Ferrule Cleaner for SC,FC and ST-adapters for 2.5mm ferrule		
39989.2	Ferrule Cleaner for LC, MU for PC & APC 1.25mm ferrule		



SPLICING & MEASURING EQUIPMENT //

Splice Devices	P. 105 - 108
Accessories for Splice Devices	P. 108
Measurement Units	P. 109

// YOU MAY ALSO BE INTERESTED IN:

Fiber Pigtails	P. 88 - 89
Fiber Optic Installation Cable	P. 62
Cleaning Tools	P. 96
Service / Measurement	P. 86 - 87
Fiber Optic Cable Pre-Assembled	P. 70
FTTx	P. 22















2-Axis Fusionsplicer Inno A3

Scope of delivery:

- Fusion Splicer
- Cleaver
- Fiber Holder
- SOC Fiber Holder
- SOC Heater Cover
- AC Adapter
- Cooling Tray -Electrode
- Battery Pack
- Power Cable
- USB Cable
- Work StationShoulder Strap
- Workstation

Optional Accessories:

- Alcohol Pump
- Stripper

Suitable for ribbon cable:	.False
Extra monitor connection:	False
Weight:	.1.2 KG
Compatible Fiber/Cable:	.0,25 - 3,0;Indoor cable
Fiber Count:	.Single
Fiber Holder:	.Replaceable
Splice Mode:	.6
Typical Splice Loss:	.MM: 0,01;SM:0,03;DS: 0,05;NZDS: 0,05;G.657:
0,03 dB	
Typical Return Loss:	.>60
	_

Operating Conditions:Altitude: 0-5000m; Humidity: 0 - 95%; Tempera-

ture: -10 - 50°C;Max. Wind: 15m/s

ArtNo.	Description	No. of Splice/Heating with Battery	Equipment
INNO-A3	2-Axis Fusionsplicer Inno A3 with clad alignment	150x Splice + Heat	Shrink oven
ArtNo.	Accessory		
VIEW-CLEAVER	Cleaver for Inno View 7, View 8+		
VIEW-V11	High precision cleaver with universal holder and replaceable holder		
VIEW-CRIMPTOOL	Crimptool for crimp splice protection		
53100.32	Crimp arc splice protection, Telekom approved, (min. PPU 30/ package 150pcs)		
53100.32-150	Crimp arc splice protection, Telekom approved, 1 carton = 150 peaces (PPU)		
53100.9-100	Splice Heat Shrink, transparent, length: 60mm, PU 100		
53100.91-100	Splice Heat Shrink, transparent, length: 45mm, PU 100		





3-Axis Fusionsplicer Inno View5Pro DESCRIPTION

View 5 Pro, a core-alignment splicer with the world's highest fiber image magnification rate, is the most dependable fusion splicer in the market. View 5 Pro's $\overset{\circ}{5}$ inch high-resolution color LCD touch screen with user-friendly intuitive GUI (Graphic User Interface) offers large and clear fiber images to users. By double-tapping the screen, users can zoom In & Out the image to the world's highest magnification of 520x. Also View 5 Pro's compatibility with SOC (Splice-On-Connectors) will bring satisfactory experiences to users in FTTx field with maximum work efficiency through the fast heating time of 13s. Moreover, the 3 LED lights provide bright splice condition to the users working under dark environments. View 5 Pro is the new industry standard of core-alignment splicer in the telecommunications industry. All of these new features combined with longer lasting battery and newly introduced touch screen mean that the View 5 Pro will work faster, more precisely and for longer than ever before.

View Pro Monitoring Web Service

Facilitates the management of multiple devices and work progress by tracking device in real time and generating report based on server data. Job order function allows manager to give work direction to operators which has enrolled device.

Scope of delivery:

Fusion Splicer 1x
Cleaver 1x
Fiber Holer 1set
SOC Holder 1x
SOC Heat Cover 1x
AC Adapter 1x
Cooling Tray 1x
Electrode 1set
Battery 1x
Power Cable 1x
USB Cable 1x
Carrying Case 1x
Shoulder Trap 1x

Optional Accessories:

Quick Guide 1x Workstation 1x

Alcohol pump Stripper Cigarette Lighter Cable Electrode Grinder







Weight:2.21 KG
Compatible Fiber/Cable: 0,25 - 3,0;Indoor cable
Fiber Count:Single
Fiber Holder:Replaceable
Splice Mode:128
Typical Splice Loss:SM:0,02;MM: 0,01;DS: 0,04;NZDS: 0,04;G.657: 0,02 dB
Typical Return Loss:>60
Splicing Time:7 sec
Attenuation Splicing:0.1 - 20 dB
Heating Time (oven):13 sec
Results Storage:10000
Tension Test:1.96 - 2.25 N
Operating Conditions:Altitude: 0-5000m; Humidity: 0 - 95%; Temperature:
-10 - 50°C;Max. Wind: 15m/s
Storage Conditions:Humidity: 0 - 95%;Temperatur: -40 - 80°C
Size (WxHxD):149 x 177 x 151

ArtNo.	Description	No. of Splice/Heating with Battery	Equipment
VIEW5PR0	3-Axis Fusionsplicer Inno View5Pro with core alignment	200x Splice + Heat	Shrink oven
ArtNo.	Description		
VIEW-CRIMPTOOL	Crimptool for crimp splice protection		
VIEW-V11	High precision cleaver with universal holder and replaceable holder		
VIEW-WORKBENCH	Workbench for ViewPro series with holder for crimptool, cleaver + splice cassette		
53100.32	Crimp arc splice protection, Telekom approved, (min. PPU 30/ package 150pcs)		
53100.32-150	Crimp arc splice protection, Telekom approved, 1 carton = 150 peaces (PPU)		
53100.9-100	Splice Heat Shrink, transparent, length: 60mm, PU 100		
53100.91-100	Splice Heat Shrink, transparent, length: 45mm, PU 100		

SPLICE DEVICES | SPLICING & MEASURING EQUIPMENT





3-Axis Fusionsplicer Inno View8Pro DESCRIPTION

View 8 Pro, a core-alignment splicer with the world's highest specification, offers maximum work efficiency through the quick mode of 6s splice time and 9s heating time. In addition, INNO mobile application improves the operator to manage splicer and splice data.

To make a precise aligning, 4 motors and clad alignment ad-opted in this fusion splicer can rival the core-alignment. Global first windshield, inbuilt dual-angle LED lightening and high definition 5.0 - inch LCD screen are available. You can double touch the screen to zoom in the image, obtaining clearer fiber image and splicing results displayed. Besides, this fusion splicer inherits many merits functionally from INNO's fusion splicer family such as versatile holders and fast heating.

All of these new features combined with longer lasting battery and newly introduced touch screen mean that the View 8 Pro will work faster, more precisely and for longer than ever before.

View Pro Monitoring Web Service

Facilitates the management of multiple devices and work progress by tracking device in real time and generating report based on server data. Job order function allows manager to give work direction to operators which has enrolled device.

Scope of delivery:

Splicer 1x Cleaver 1x Fiber Holder 1set SOC Holder 1x SOC Heater Cover 1x AC Adapter 1x Cooling Tray 1x Electrode 1set Battery 1x Power Cable 1x USB Cable 1x Carrying Case 1x Shoulder Strap 1x Quick Guide 1x

Optional Accessories:

Workstation 1x

Alcohol pump Stripper Cigarette Lighter Cable Electrode Grinder











Weight: 2.78 kg
Compatible Fiber/Cable: 0,25 - 3,0;Indoor cable
Fiber Count: Single
Fiber Holder: Replaceable
Splice Mode:128
Typical Splice Loss:
SM:0,02;MM: 0,01;DS: 0,04;NZDS: 0,04;G.657: 0,02 dB
Typical Return Loss:>60
Splicing Time:6 sec
Attenuation Splicing: 0.1 - 20 dB
Heating Time (oven):9 sec
Results Storage:10000
Tension Test: 1.96 - 2.25 N
Operating Conditions: Altitude: 0-5000m; Humidity: 0 - 95%; Tempe-
rature: -10 - 50°C;Max. Wind: 15m/s
Storage Conditions: Humidity: 0 - 95%; Temperatur: -40 - 80°C
Size (WxHxD):143 x 158 x 162

ArtNo.	Description	No. of Splice/Heating with Battery	Equipment
VIEW8PRO	3-Axis Fusionsplicer Inno View8Pro with core alignment	355x Splice+Heat	Shrink oven
ArtNo.	Description		
VIEW-CRIMPTOOL	Crimptool for crimp splice protection		
VIEW-V11	High precision cleaver with universal holder and replaceable holder		
VIEW-WORKBENCH	Workbench for ViewPro series with holder for crimptool, cleaver + splice cassette		
53100.32	Crimp arc splice protection, Telekom approved, (min. PPU 30/ package 150pcs)		
53100.32-150	Crimp arc splice protection, Telekom approved, 1 carton = 150 peaces (PPU)		
53100.9-100	Splice Heat Shrink, transparent, length: 60mm, PU 100		
53100.91-100	Splice Heat Shrink, transparent, length: 45mm, PU 100		









Workbench for ViewPro series with holder for cimptool, cleaver + splice cassette

Workbench for ViewPro series with holder for cimptool, cleaver + splice cassette

ArtNo.	Description
VIEW-WORKBENCH	$\label{thm:continuous} Workbench for ViewPro\ series\ with\ holder\ for\ crimptool, cleaver\ +\ splice$ $cassette$









High precision cleaver with universal holder and replaceable holder

High precision cleaver with universal holder and replaceable holder

	ArtNo.	Desc	Description			
	VIEW-V11	High precision cleaver with universal holder and replaceable holder				
	Accessory					
ArtNo.			Description			
VIEW-WORKBENCH		NCH	Workbench for ViewPro series with holder for crimptool,cleaver + splice			
			cassette			



Loose tube tool blue

Loose tube tool for stripping the loose tube in fiber horizontal cables Minimises danger to damage the fibers during stripping off the tube

ArtNo.	Description	
39958.1	Loose tube tool blue, 3,2 - 6,3mm	





53100.32-150



Crimptool for crimp splice protection

Crimping tool with stand for crimp splice protectors of common manufacturers

ArtNo.	Description			
VIEW-CRIMPTOOL	OL Crimptool for crimp splice protection			
Accessory				
ArtNo.	Description			
VIEW-WORKBENCH Workbench for ViewPro series with holder for crimptool,cleaver +				
	cassette			



Crimp arc splice protection, Telekom approved, 1 carton = 150 peaces (PPU)

INFRALAN® Stripper

Fiber stripper for stripping of the main jacket and primary coating 250 μm to 125 μm

Precision-made 127 μm v-notch, no adjustment required

ArtNo.	Description
HS15-ABSETZZANGE	INFRALAN® Stripper



Crimptool for crimp splice protection

Crimping tool for all common crimp splice protection types Special feature: Internal development with a design protection and protection of utility models

Compact and light design

Robust tool

Material: black anodized steel

Skid proof through rubberised pedastal

Defined insertion of fibers through large lateral support surfaces possible Dimensions: 100x40x45 mm

Weight: 200 g

Accessory
Art.-No.

ArtNo.	Description	
HS15-CRIMPTOOL	Crimptool for crimp splice protection	

•		
No.	Description	
00.3	Crimp splice protector for	

53100.3	Crimp splice protector for arc splices, (min. PPU 15/ package 150pcs)
53100.21	Spliceholder for 12 arc splices

Fiber Optic Power Meter 850/1300/1310/1550nm

Fiber Optic Power Meter for measurement of the Insertion Loss of Fiber-Communication links. The unit is used with the Light Sources HS15-LS1 (850nm/1300nm) and/or HS15-LS2 (1310nm/1550nm). Robust and compact case

Internal storage for 39 measurements Data transfer through with PC is possible Communication Connector: USB Visiual Fault Locator included in the unit Detector Type: InGaAs

Visiual Fault Locator: 1mW Optical Connector: SC/ PC

. Measurement Range: +8dBm ~ -70dBm

Measurement Wavelength: 850nm, 1300nm, 1310nm, 1550nm

Resolution: 0,01dB Accuracy: +/- 0,2dB

Modulation Detection: 270Hz, 1kHz, 2kHz

Low Battery Warning Display Backlight

Operation Temperature -10°C \sim +60°C Opteration Humidity < 90% RH Storage Temperature -20°C \sim +70°C Storage Humidity < 90% RH

Power Source: 2x AA/LR6 1,5V (not included)

Dimensions: 170x97x38mm

Weight: 330g



ArtNo.	Description	Measured value memory	Suitable for	Model	Type of indication	With PC/printer interface	Suitable for network protocol measurement
HS15-MESS	Fiber Optic Power Meter	Yes	Fiber Optic	IL measurement unit	LCD/monitor	Yes	No
	850/1300/1310/1550nm						



Fiber Optic Light Source for HS15-MESS

HS15-LS1: Light Source 1310nm and 1550nm HS15-LS2: Light Source 850nm and 1300nm

To use with item HS15-MESS

Power Stability: +/-0.05db for 1 hour, +/-0.1dB for 8 hours

Optic Connector: SC/PC

. Signal Modulation: 270Hz, 1kHz, 2kHz

Low Battery warning

Storage Temperature: $-20^{\circ}\text{C} \sim +70^{\circ}\text{C}$ Storage Humidity: $< 90^{\circ}\text{RH}$

Operating Temperature: $-10^{\circ}\text{C} \sim +60^{\circ}\text{C}$ Operating Humidity: < 90%RH

Power Source: 2x 1,5V AA batteries (not included)

Dimension: 165x80x35mm

Weight: 280g



ArtNo.	Description	Measured value memory	Suitable for	Model	Type of indication	With PC/printer interface	Suitable for network protocol measurement
HS15-LS1	Fiber Optic Light Source 1310/1550nm, for HS15-MESS	True	Fiber Optic	Light Source	LCD/monitor	No	No
HS15-LS2	Fiber Optic Light Source 850/1300nm, for HS15-MESS	True	Fiber Optic	Light Source	LCD/monitor	No	No







FiberXpert OTDR 5000 Quad

Designed with the installers and operators of enterprise networks in mind, the FiberXpert OTDR 5000 measures, documents and troubleshoots fiber optic networks. The FiberXpert OTDR 5000 provides very high resolution with one of the shortest dead zones available for testing multimode and single-mode fibers, thus enabling measurement of very short fiber links. Automatic analysis simplify the measurement tasks and let you be the fiber expert.

With a high dynamic range and a small event dead zone the FiberXpert OTDR 5000 is the tool for measuring relative short optical fiber links in company networks and data centers. With an event dead zone of less than 80cm it is possible to detect connectors in a short row and measure them highly accurate. To reduce costs and resources the FiberXpert measures using the maximum resolution in the shortest possible time.

Characteristics:

OTDR for 850/1300nm multimode or combined for 850/1300nm multimode and 1310/1550nm singlemode Standards compliant Tier 2 measurement of fiber optic cabling

Automatic Pass/Fail analysis of the test results according to the limits specified by TIA/IEC

Display of the OTDR trace in a graphical format for a length-dependent analysis of all events for reflection and attenuation

All fiber link events and analysis listed in a table of results

Automatic macro-bend detection

Built-in optical loss test set

Optional fiber inspection probe

 ${\bf 5}$ inch colour LCD touch screen

Hand-free operation due to a special carrying case

 $Generation \ of \ professional \ reports \ with \ the \ central \ eXport \ evaluation \ software$

Laser safety class: M1

Interchangeable optical connectors: FC, SC, DIN, and ST

Calibrated wavelengths MM: 850 and 1300 nm

Calibrated wavelengths SM: 1310, 1490, 1550, 1625 and 1650 nm

Measurement accuracy MM: ±1 dB (At -15 dBm)

Measurement accuracy SM: ±0.5 dB (At -30 dBm)

Event dead zone MM: 0.8m

Event dead zone MM: 0.9 m

Scope of delivery:

Main measurement unit, SC compatible Multimode module, SC compatible Singlemode module Li-Po batteries, power supplies, soft case with shoulder strap, hard carry case, calibration certificate

Weight: 400 g

Dimensions: 128 x 134 x 40 mm

ArtNo.	Description	Measured value memory	Suitable for	Model	Type of indication	With PC/printer interface
FX5000-QU	FiberXpert OTDR 5000 Quad, Multimode/Singlemode	True	Fiber Optic	OTDR Quad	LCD/monitor	True

Accessories

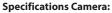
ArtNo.	Description
FX_AD_DIN	Connection adapter for DIN Connector for FX5000
FX_AD_FC	Connection adapter for FC Connector for FX5000
FX_AD_SC	Connection adapter for SC Connector for FX5000
FX_AD_ST	Connection adapter for ST Connector for FX5000

MEASUREMENT UNITS | SPLICING & MEASURING EQUIPMENT

Fiber Optic Inspection Microscope for 2,5mm and 1,25mm ferrules

Fiber Optic Microscope for inspection of connector endfaces E.g. SC, LC, ST, E2000®, FC, DIN or FSMA connector Adapter for 2,5mm ferrules and 1,25mm ferrules included Eye-Safe video viewing, Ergonomic design Fast and easy focus due to one hand operation Large 3,5" display Operation by rechargeable battery pack Inspection of different kind of cable with mounted connectors possible

Change inspection tips in seconds



Field of view: ~ 0,425mm x 0,320mm Optical Resolution: 0,5µm Optical Magnification: 400 times Focus: Manual adjustment Light Source: Blue LED Dimensions: 35x175mm (without cap) Weight 200g

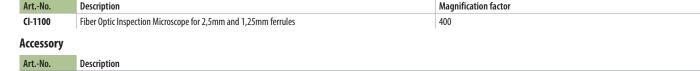
Specifications Display:

Display: 3,5" LCD-TFT, 960 x 240 pixel Adjustable brigthness and contrast Dimensions: 105x90x45mm (folded) Weight: 255g (without battery)

Power Supply: 9,6V battery pack or AC power supply

Battery Life: 4 hours

HS15-MESS



Digital Fiber Inspection Kit

Fiber microscope - Inspection and evaluation of connector end-faces Digital fiber microscope to inspect connector end-faces

Fiber Optic Power Meter 850/1300/1310/1550nm

Before testing fiber-optic links and every time fiber optic connectors are mated, connector end-faces should be inspected and evaluated to avoid contamination that can cause degradation of network performance and destructive damage in the contact zone. The new fiber microscope provides for a quick and easy inspection of connector end-faces and an automated analysis compliant with IEC 61300-3-35.

The microscope is easily connected via USB with WireXpert or FiberXpert and the evaluation of connector end-faces can be added to the test reports.

Inspection and evaluation of connector end-face at the touch of a button Automated analysis compliant with IEC 61300-3-35 Ease of use and quick analysis Compatible with WireXpert and FiberXpert

Adapters for the most common fiber-optic connectors are included in the delivery

Scope of delivery: Digital USB microscope carrying case FC/LC/SC/U12M/U25M tips

WX_FX_INSP_KIT | Digital Fiber inspection kit



Accessory

ArtNo.	Description
FX5000-QU	FiberXpert OTDR 5000 Quad, Multimode/Singlemode
WX4500-FA-V2	Copper- and Fiber Optic-Cable Certifier up to 2500MHz







Copper- and FO-Cable Certifier up to 2500MHz

For standard conformance measurement of structured cabling in buildings Professional documentation generator

Complete glass fiber certification for MM and SM with optional fiber optic measuring adapters

Supports two-wavelength end-to-end measurements for MM and SM glass fibers

General Specifications

Interfaces: Probe Interface, RJ-45 Ethernet, USB host and device, talkset, power jack

Display: 6" industrial LCD, touch sensitive area on both units

Enclosure: Ruggedized plastic with rubber over-mold, withstands 1.5m drop test on hard surface

Remote unit abilities: View test results, save tests, start autotest Input over-voltage protection: Protected against Telco voltages

Battery: Removable and rechargeable Li-lon **Battery Capacity:** >8 hours continuous operation

Internal Storage Capacity: 2000 copper test results with full plot informa-

External Storage: USB Flash Drive 1 GB in delivery (21 GB max.)

Calibration period: 1 year

Dimensions: 232 X 126 X 87 mm3 (9.1 X 5.0 X 3.4 inch3) /unit

Weight: Approx. 1.4 kg (3.0 lb) / unit

Environmental

Operating Temparature: 0 to 40 °C Storage Temperature: -20 to 60 °C Relative humidity: 10% to 80%

Scope of delivery:
WireXpert Handheld units: 2
Li-lon Batteries: 2
Stylus with Cords: 2

Display Protection Covers: 2 CAT 6A Permanent Link Interface Adapters: 2

CAT 6A Permanent Link Test Cords: 2

CAT 6A Channel Adapters: 2

USB Thumb Drive incl. Manual and Software: 1

Talk Head Sets: 2 AC Power Adapters: 2 Country Specific Power Cord: 2 Calibration Certificate: 1 Carrying Case: 1 Quick Reference Guide: 1





Copper testing

Certification Testing: TIA 568-C.2 CAT 5e, 6, 6A, draft CAT 8

ISO/IEC 11801, EN 50173 Class D,E,EA,F,FA

draft Class I and Class II Permanent link and channel

CAT 5e, 6, 6A, 7, 7A and patch-cord Autotest time - CAT6A: 9 sec Autotest time - Class FA: 15 sec

Max cable length for dual ended Autotest: 500m

Insertion Cycles: Channel: 10000 typical

Permanent link: 5000 typical

Advanced Diagnostics: Time-domain fault Locator for RL and NEXT **Measurement Accuracy:** Exceeds TIA 1152 Level IIIe, IEC 61935 level IV

Measurement Frequency Range: 1-2500 MHz

Fiber Testing - SM

Wavelengths 1310nm, 1550nm

Autotest Time: 6 seconds for dual ended test **Connector Type:** SC, LC (optional adapter needed)

Fiber Testing - MM

Wavelengths: 850nm, 1300nm

Autotest Time: 6 seconds for dual ended test

Connector Type: SC

ArtNo.	Description
WX4500-FA-V2	Copper- and Fiber Optic-Cable Certifier up to 2500MHz



Fiber Optic Module for WX4500

ArtNo.	Description
WX_AD_SM2	WX4500 Singlemode-FO- measurement modul(1310nm and 1550nm)
WX AD EF MM2	Multimode-Fiber-Modul, Encircled Flux (1 pair) 850nm and 1300nm



OTDR-MEASUREMENT MULTIMODE/ SINGLEMODE PERFORMING OTDR MEASUREMENTS AT INSTALLED FIBER OPTIC CONNECTIONS IN THE LAN





Prerequisite without further mention is the previous microscopy of the connector end surfaces according to the specification of IEC 14763-3, which must also be documented. The OTDR measuring device must have an automatic evaluation function (e.g. LSA method) to avoid or detect errors due to manual setting of cursors. Measurements in the wavelength range from 850 nm to 1550 nm with pre- and post-launch fiber (minimum length according to IEC 14763-3) to estimate the detachable fiber optic connections of the DUT. Alternatively, measurements can be performed with a launch fiber (minimum length according to IEC 14763-3) if a bi-directional measurement is performed. The measurement setup is to be shown by means of a principle sketch, from which the length, the connectors as well as the pre-launch and post-launch fibers can be identified. There are no other connecting cables between the pre-launch and post-launch fibers allowed so that the quality of the connector transitions can be assessed. The displayed information must be set, that the DUT with the pre-launch and post-launch fibers can be seen on the screen/printout and the reflections of the detachable FO connections are not cut off.

TRANFER OF MEASUREMENT DATA:

The OTDR protocols are to be handed over on a data storage medium in the original format, as a graph and with an event table including the evaluation software of the of the measuring device used.

THE FOLLOWING DATA MUST BE INCLUDED IN THE REPRESENTATION:

- Cable manufacturer/ -type
- Fiber type
- Fiber count
- Refractive index
- Measurement wavelength/ measurement wavelengths
- Used measuring device with serial number an calibration date
- Pulse width
- Pulse duration
- Description of the measurement object (e.g. start and end point of the FO link including all splices/connectors)
- Installer/ Company
- Operator

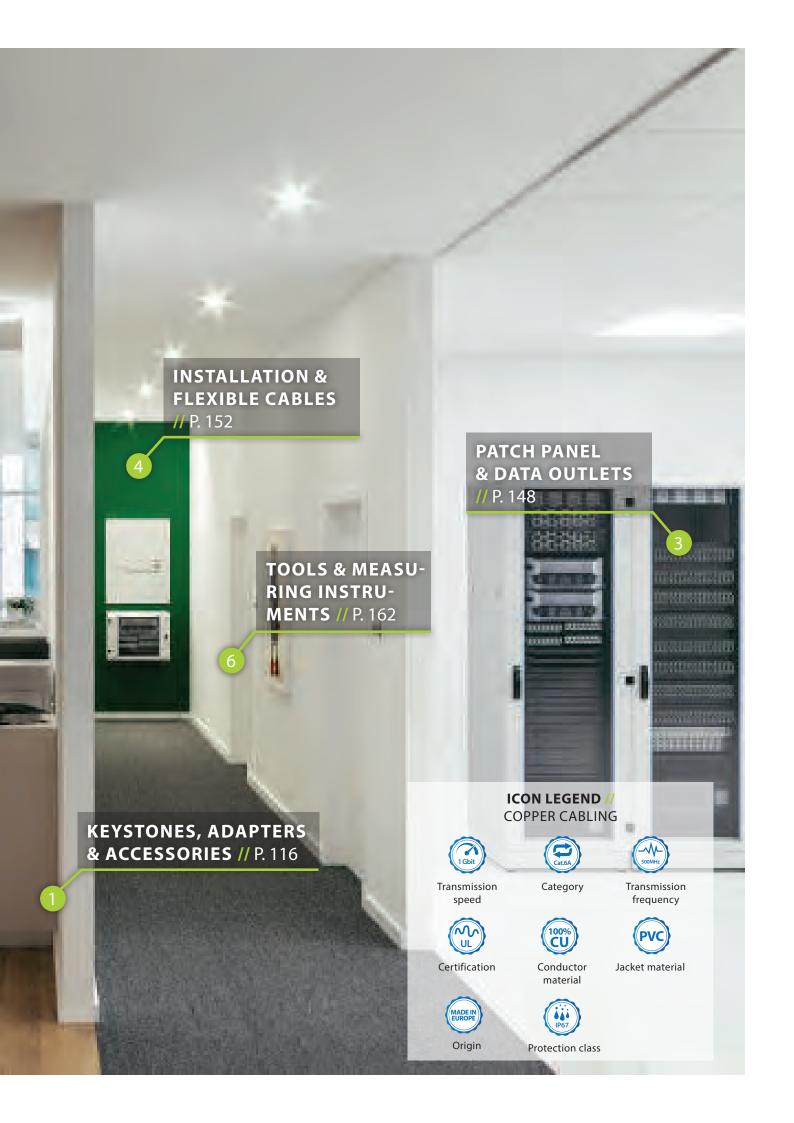
The data must be accompanied by the site plan of the object, with which all measured distances can be assigned.

*LIMIT VALUES TO BE COMPLIED WITH:

- Kilometric attenuation: see fiber parameters in the fiber data sheets
- Splice attenutation: <= 0.1 dB
- Splice attenutation and detachable plug-in connection: <= 0.85 dB
- Attenuation of a detachable plug-in connection: <= 0.75 dB
- Return loss: >= 45 dB

^{* (}Limit values may deviate in the respective measurement object due to specifications of the building owner or due to regulations of the country or federal state).







KEYSTONES, ADAPTERS & ACCESSORIES //

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// YOU MIGHT ALSO BE INTERESTED IN:

Installation Cable	P. 154
Patch Cable	P. 130
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19" Network Cabinets	P. 184

KEYSTONES, ADAPTERS & ACCESSORIES

Article-No.	E-20093	E-20092	E-20091	E-20070	E-20095	E-200100	E-20072	E-20080	11201166	11201155
Category	6A (IEC)	Cat.8 Class 1	6A (IEC)	6A (IEC)	6A (IEC)	6A (IEC)	9	9	9	SE .
Connection type	IDC	IDC	DC	DC	IDC	IDC	IDC	IDC	LSA	LSA
Shielded	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No
AWG-range for stranded wire	1	-	ı	26/7 - 24/7	-	26/7 – 22/7	1	ı	ı	-
AWG-range for solid wire	26/1 - 22/1	24/1 – 22/1	24/1 – 22/1	26/1 – 22/1	24/1 – 22/1	26/1 – 22/1	24/1 – 22/1	24/1 – 22/1	26/1 – 22/1	26/1 – 22/1
Special tool necessary	No	No	No	No	No	No	No	No	Yes	Yes
Housing material	Zinc die cast	Zinc die cast	Zinc die cast	Zinc die cast	Zinc die cast	Zinc die cast	Zinc die cast	Plastic	Plastic	Plastic
Dust cover	integrated	Captive/**	Captive/**	Yes	Captive/**	No	Yes	Yes	Yes	Yes
For UAE suitable/Slimline	No	No	No	No	Yes	Yes	No	No	No	No
Max. cable diameter	8.5mm	8.5 mm	8.5 mm	8.0 mm	8.5 mm	8.5 mm	8.0 mm	8.5 mm	8.5 mm	8.5 mm
Separate earthing flag	No	Yes	Yes	No	Yes	No	No	No	No	No
Sliding shield contact for different cable diameters	No	Yes	Yes	Yes	Yes	No	Yes	No	No	No
360° shield contact	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No
Shielding and strain relief separated	No	Yes	Yes	No	Yes	No	No	No	No	No
Installation dimension	14.8 x 19.25-20 mm	14.8 x 19.25-20 mm	14.8 x 19.25-20 mm	14.8 x 19.25- 20 mm	14.8 x 19.25-20 mm	14.8 x 19.5 mm	14.8 x 19.25-20 mm	14.8 x 19.25-20 mm	14.8 x 19.5 mm	14.8 x 19.5 mm
Length	30.5 mm	40.95 mm	40.00 mm	37.50 mm	40.66 mm	37.66 mm	37.50 mm	37.50 mm	34.4 mm	34.4 mm
Mating cycles	> 750	> 750	> 750	> 750	> 750	> 750	> 750	> 750	> 750	> 750
Temperature range	-10 - 60 °C	-40 – 66 °C	-40 – 66 °C	J° 99 − 04-	-40 – 66 °C	J ₀ 09 – 01-	-40 – 66 °C	-40 – 66 °C	J ₀ 99 – 04-	-40 — 66 °C
Test voltage Dieelektrikum	750V AC 60Hz	1000 V AC 60 Hz	1000 V AC 60 Hz	1000 V AC 60 Hz	1000 V AC 60 Hz	700 V AC 60 Hz	1000 V AC 60 Hz	1000 V AC 60 Hz	1000 V AC 60 Hz	1000 V AC 60 Hz
Current rating	1,5A	1,5A	1,5A	1,5A	1,5A	1,5A	1,5A	1,5A	1,5A	1,5A
Insulation withstanding	≥ 500MΩ	≥ 500MΩ	≥ 500MΩ	≥ 500MΩ	≥ 500MΩ	≥ 500MΩ	≥ 500MΩ	≥ 500MΩ	≥ 500MΩ	≥ 500MΩ
Contact withstanding	≤ 20mΩ	≥ 20mΩ	≤ 20mΩ	≤ 20mΩ	≥ 20mΩ	≥ 20mΩ	≥ 20mΩ	≤ 20mΩ	< 20mΩ	≤ 20mΩ
According to fire protection class UL94	٧-0	٧-0	N-0	٧-0	٧-0	٧-0	٧-0	٧-0	N-0	N-0
UL certified	No	No	No	No	No	No	No	No	Yes	Yes
POE	PoE, PoE+	PoE, PoE+, 4PPOE	PoE, PoE+, 4PPOE	PoE, PoE+, 4PP0E	PoE, PoE+, 4PPOE	PoE, PoE+	PoE, PoE+, 4PPOE	PoE, PoE+, 4PPOE	PoE, PoE+	PoE, PoE+
Certification	Type Approval PL GHMT	Channel Class I Force Technology	Type Approval GHMT	Type Appro- val GHMT	_	Type Approval PL GHMT	ı	ī	Connecting Hardware ETL Intertek	
PPU		_		_	_	1	_	-1	12	12











RJ45 Keystone STP, Cat.8 Class 1

The high-quality of the RJ45 keystone modules warrants very good characteristics for **40 Gbit** Ethernet application. Special tools are not needed. The assembling is being carried out fast and easy. With the RJ45 module you get a full shielded module, which provides you good longterm service in your network infrastructure.

Specifications:

Compact cable presorter for AWG 24/1...22/1
Pair management according to TIA 568A /B colour codes
Appropriate for distribution panels and frames with keystone slots
Flexibel strain relief for different cable diameter

Scope of delivery:

1 x RJ45 keystone, Cable coder, captive dust cover, copper foil, cable ties, mounting instruction

Accessorv

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ArtNo.	Description
K9210.25	Cat.8.1/Class I Installation link 25m, on cable drum
37580.1	Distribution Panel 19" 1U, 24-Port, black RAL9005
88035.2	Field installable connector, RJ45 Cat.8 Class 1 AWG22 - 27, zinc alloy

ArtNo.	Description	Colour	Complaint to UL94	4PPOE certified
E-20092	RJ45 Keystone STP, Cat.8 Class 1, 2000MHz	silver	V-0	yes







RJ45 Keystone STP, Cat.6A, 500MHz, Slimline

The RJ45 keystone module slimline garantues very good characteristics for 10Gbit Ethernet application. Special tools are not needed. The assembling is carried out fast and easy. With the RJ45 module slimline you get a full shielded module which provides you good longterm service in your network infrastructure.

Specifications:

Extremely small design **"Slimline"** for installation with **UAE** frame sets, **design capable**

Compact cable presorter for contacting IDC-Terminals AWG 24/1 .. 22/1 Pair management according to TIA 568A /B colour codes Appropriate for all distribution panels and frames with keystone slots Flexibel strain relief for different cable diameter Captive dust cover

Scope of delivery:

1 x RJ45 keystone, Cable coder, 1 x captive dust cover, 1 x copper foil, 2 x cable ties, mounting instruction







Accessory

ArtNo.	Description
ET-25111	Frame Set 2-Port, for Keystones, design capable TAE
ET-25090	Frame Set 2-Port, for slimline keystone module, design capable UAE
37578.1	Distribution Panel 19" 1U, 24-Port, grey RAL7035

ArtNo.	Description	Colour	Complaint to UL94	4PPOE certified
E-20095	RJ45 Keystone Slimline, Cat.6A, silver	silver	V-0	yes























RJ45 Shortbody Keystone STP, Cat.6A 500MHz with internal shutter

With the RJ45 10G module you get a fully shielded module, which offers you good services in your network installation for a long time. Due to its short installation depth of 30.5mm, installation in flush boxes and in limited spaces is even easier compared to standard keystones

Properties:

Installation depth of only 30.5mm

Compact cable pre-sorter for AWG22/1 ... AWG26/1

Pair management according to TIA/EIA 568 A/B colour codes (colour code printed on the cable pre-sorter)

Suitable for distribution panels and support rings with keystone breakout

Scope of supply:1 x RJ45 Keystone, installation manual (English)

Accessory

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ArtNo.	Description
ET-25091	2-Port Frame Set for Keystone, straight outlet, DIN49075, RAL9003 signal white
99981.1-CPR	INFRALAN® Cat.7 1000 AWG23, S/FTP 4P CPR Cca orange
99983.1-CPR	INFRALAN® Cat.7A 1500 AWG22 S/FTP 4P CPR Cca rape yellow RAL1021
MK7100.1-CPR	INFRALAN® Cat.7A 1200 AWG22, S/FTP 4P CPR B2ca orange RAL 2003
K5525FGN.1	RJ45 Patch cable S/FTP, Cat.6A, Cat.7 Raw cable TPE superflex, 1m, green
MK6001.3Y	RJ45 Patch cable S/FTP, Cat.6A, LSZH, 3m, yellow
MK7001.1Y	RJ45 Patch cable S/FTP, Cat.6A, LSZH, Cat.7 Raw cable, 1m, yellow
K5510.2	RJ45 Patch cable S/FTP, Cat.6, LSZH, 2m, grey
37580.1	Distribution Panel 19" 1U, 24-Port, black RAL9005
WX4500-FA-V2	Copper- and Fiber Optic-Cable Certifier up to 2500MHz

depth with regular Keystone

ArtNo.	Description	Colour
E-20093	RJ45 Shortbody Keystone STP, Cat.6A 500MHz with internal shutter	silver

















RJ45 Keystone STP, Cat.6A 500MHz 10Gbit

The high-quality of the RJ45 keystone modules warrants very good characteristics for 10Gbit Ethernet application. Special tools are not needed. The assembling is being carried out fast and easy. With the RJ45 module you get a full shielded module, which provides you good longterm service in your network infrastructure.

Specifications:

Cat.6A component certified acc. to ISO/IEC 11801 and IEC 60603-7-51 Compact cable presorter for AWG 24/1 .. 22/1 Pair management according to TIA 568A /B colour codes Appropriate for distribution panels and frames with keystone slots Flexibel strain relief for different cable diameter

Scope of delivery:

1 x RJ45 keystone, Cable coder, captive dust cover, copper foil, cable ties, mounting instruction

Accoccory

Accessory	
ArtNo.	Description
EHT-010	Crimping tool for E-20070 and E-20091

ArtNo.	Description	Colour	Complaint to UL94	4PPOE certified
E-20091	RJ45 Keystone STP, Cat.6A, 500MHz, component certified	silver	V-0	yes



















The RJ45 keystone module provides a combination of excellent transmission qualities and an easy tool-free assembly. The high quality of the RJ45 keystone module ensures very good qualities for 10 Gigabit Ethernet applications. No special tools are needed for the assembly. The assembly is easy and handy to execute. With the RJ45 keystone module you receive a fully shielded module, which will provide good service for a long time in your network installation.

Specifications:

Cat.6A components certified according to ANSI/TIA-568-C.2, ISO/IEC 11801 and IEC 60603-7-51

Compact cable presorter for AWG 26/1 .. AWG 22/1 and AWG26/7 .. AWG24/7

Pair management according to TIA 568A /B colour codes Appropriate for distribution panels and frames with keystone slots

Scope of delivery:

1 x RJ45 keystone, Cable coder (Black: AWG22/1-AWG26/1; Grey: AWG24/7-AWG26/7), 1 x copper foil, 1 x cable tie, dust cover, mounting instruction

|--|--|

Accessory

ArtNo.	Description
EHT-010	Crimping tool for E-20070 and E-20091
37580.1	Distribution Panel 19" 1U, 24-Port, black RAL9005

ArtNo.	Description	Colour	Complaint to UL94	4PPOE certified
E-20070	RJ45 Keystone STP, Cat.6A, 500MHz, component certified	silver	V-0	yes











RJ45 Keystone Slimline, Cat.6A, zinc alloy

The high-quality of the RJ45 Slimeline keystone modules warrants very good characteristics for 10Gbit Ethernet application. Special tools are not needed. The assembling is being carried out fast and easy. With the RJ45 module you get a full shielded module, which provides you good longterm service in your network infrastructure.

Specifications:

Shielded keystone zinc diecast body

Cat.6A component certified acc. to ISO/IEC 11801 Ed.2.2 (2011-06) and IEC 60603-7-51 Ed.1.1 (2010-03)

Compact cable presorter for AWG 24/1 .. 22/1 and AWG 26/7 .. AWG 24/7 Max. cable diameter: 8,5mm

Pair management according to TIA 568A /B colour codes

PoE and PoE Plus according to IEEE802.3af/at

Appropriate for distribution panels and frames with keystone slots

Scope of delivery:

1 x RJ45 keystone, cable tie, mounting instruction



ArtNo.	Description
ET-25085V2	Frame set 2-Port, for Keystones, DIN49075, RAL9010
ET-25087V2	Frame set 1-Port, for Keystones, DIN49075, RAL9010
ET-25111K	Keystone Frame revolving 2-Port, for Keystones, design capable TAE

ArtNo.	Description	Colour	Complaint to UL94	4PPOE certified
E-200100	RJ45 Keystone Slimline, Cat.6A, zinc alloy, 10GE	silver	V-0	False











RJ45 Keystone STP, Cat.6 250MHz 5Gbit

The RJ45 keystone module provides a combination of excellent transmission qualities and an easy tool-free assembly. The high quality of the keystone module ensures very good qualities for 5 Gigabit Ethernet applications. No special tools are needed for the assembly. The assembly is easy and handy to execute. With the RJ45 keystone module you receive a fully shielded module, which will provide good service for a long time in your network installation.

Specifications:

Compact cable presorter for AWG 24/1 .. AWG 22/1 Pair management according to TIA 568A /B colour codes Appropriate for all distribution panels and frames with keystone slots

Scope of delivery:

1 x RJ45 keystone, Cable coder, 1 x copper foil, 1 x cable tie, dust cover, mounting instruction

ArtNo.	Description	Colour	Complaint to UL94	4PPOE certified
E-20072	RJ45 Keystone STP, Cat.6, 250 MHz	silver	V-0	yes



ECOLAN® RJ45 Keystone Set UTP, Cat.6 250MHz 5Gbit

Specifications:

Plastic housing PC+ABS for AWG26/1 .. AWG22/1

Cat.6 component certified acc. to ANSI/TIA-568-C.2 and ISO/IEC 11801 Max. cable diameter: $8,5\,\mathrm{mm}$

PoE and PoE Plus according to IEEE802.3af/at

Appropriate for distribution panels and frames with keystone slots, not for $\ensuremath{\mathsf{UAE}}$

LSA terminal with colour code according to TIA/EIA 568A/B LSA insertion tool (39951.1) or EHT-040 recommended

Scope of delivery:

12 polybags each with:1 x RJ45 keystone, 1 x dust cover, 1 x cable tie, 1 x mounting instruction

ArtNo.	Description	Colour	Complaint to UL94	4PPOE certified
11201166	ECOLAN® RJ45 Keystone UTP, Cat.6, 250MHz, Set 12 pieces, white	white	V-0	yes

Accessory

ArtNo.	Description
39931.1	LSA/IDC Insertion Tool for UTP Keystones
EHT-040	Crimping tool for UTP Keystones









ECOLAN® RJ45 Keystone UTP, Cat.6 250MHz 5Gbit

Cat.6 de-embedded zertifiziert (DELTA) acc. to ISO 11801 2nd Edition 2002 PoE Plus acc. to IEEE 802.3at

Plastic housing PC+ABS

Compact cable presorter for AWG 24/1 .. 22/1 and AWG 26/7 .. AWG 24/7 Max. cable diameter: $8.5 \, \text{mm}$

Pair management according to TIA 568A /B colour codes

PoE and PoE Plus according to IEEE802.3af/at

Appropriate for distribution panels and frames with keystone slots, not for UAE

Strain relief via cable tie

Scope of delivery: $1 \times RJ45$ keystone, $1 \times hinged dust cover, <math>1 \times hinged dust cover$, $1 \times$

Ar	tNo.	Description	Co- lour	Complaint to UL94	4PPOE certified
E-2	20080	ECOLAN® RJ45 Keystone UTP, Cat.6, component certified, white	white	V-0	True















ECOLAN® RJ45 Keystone Set UTP, Cat.5e 100MHz 2.5Gbit

Plastic housing PC+ABS for AWG26/1 .. AWG22/1

Max. cable diameter: 8,5mm

PoE and PoE Plus according to IEEE802.3af/at

Appropriate for distribution panels and frames with keystone slots, not for $\ensuremath{\mathsf{UAE}}$

LSA terminal with colour code according to TIA/EIA 568A/B LSA insertion tool (39951.1) or EHT-040 recommended

Scope of delivery:

12 polybags each with:1 x RJ45 keystone, 1 x dust cover, 1 x cable tie, 1 x mounting instruction

ArtNo.	Description	Colour	Complaint to UL94
11201155	ECOLAN® RJ45 Keystone UTP, Cat.5e,	white	V-0
	100MHz, Set 12 pieces, white		

Accessory

ArtNo.	Description
39931.1	LSA/IDC Insertion Tool for UTP Keystones
EHT-040	Crimping tool for UTP Keystones





Keystone Snap-In Adapter RJ45 STP, Cat.6A, 90° angled

Snap-In mounting (Keystone)
Cat.6A
90° angled
Connecting adapter for patch cables
2x RJ45 connectors shielded
Allocation: 1:1
Metal housing
Snap-in spring: plastic

ArtNo.	Description
37484.2V2	Keystone Snap-In Adapter RJ45 STP, Cat.6A, 90° angled





Keystone Snap-In Adapter RJ45 STP, Cat.6A

Snap-In mounting (Keystone)
Cat.6A/Class EA
Connecting adapter for patch cables
2x RJ45 connectors shielded
Allocation: 1:1
Metal housing
Snap-in spring: plastic

ArtNo.	Description
37521.1V2	Keystone Snap-In Adapter RJ45 STP, Cat.6A





Keystone Snap-In Adapter RJ45 STP, Cat.6A 90° access

Snap-In mounting (Keystone)

Cat.6A

Connecting adapter for patch cables

2x RJ45 connectors shielded, with on one side 90° entry

Allocation: 1:1

Stainless steel housing

Snap-in spring: metal

Α	rtNo.	Description
3	7483.1	Keystone Snap-In Adapter RJ45 STP, Cat.6A, 90° access





Keystone Snap-In Adapter RJ45 STP, Cat.6

Snap-In mounting (Keystone)

Cat.6

Connecting adapter for patch cables

2x RJ45 connectors shielded

Allocation: 1:1 Metal housing

Snap-in spring: plastic

ArtNo.	Description
37486.1	Keystone Snap-In Adapter RJ45 STP, Cat.6





Keystone Snap-In Adapter RJ45 UTP, Cat.6

Snap-In mounting (Keystone) Cat.6 Connecting adapter for patch cables 2x RJ45 connectors unshielded Allocation: 1:1

Plastic housing Snap-in spring: plastic

ArtNo.	Description
37488.1	Keystone Snap-In Adapter RJ45 UTP, Cat.6





Keystone Snap-In Adapter RJ45 STP, Cat.5e

Snap-In mounting (Keystone) Cat.5e Connecting adapter for patch cables 2x RJ45 connectors shielded Allocation: 1:1 Snap-in spring

ArtNo.	Description
37508.1V3	Keystone Snap-In Adapter RJ45 F/F STP, Cat.5e, Stainless Steel



Distribution Panel 19" 1U, 24-Port, black with Keystone Cat.6A

Distribution Panel 19" 1U, 24-port, black or grey with 24x RJ45 Keystone Slimline Cat.6A. Keystones are individually packed and enclosed to the distribution panel in a complete package.

Scope of delivery black version: 1 x Distribution Panel 37580.1 24 x RJ 45 Keystone Cat.6a E-200100

ArtNo.	Description	
B37200100TS.24	Distribution Panel 19" 1U, 24-Port, black with 24x RJ45 Keystone Slimline Cat.6A	
B37200100GR.24	Distribution Panel 19" 1U, 24-Port, grey with 24x RJ45 Keystone Slimline Cat.6A	

Accessory

ArtNo.	Description
99983.1-CPR	INFRALAN® Cat.7A 1500 AWG22 S/FTP 4P CPR Cca rape yellow RAL1021
99981.1-CPR	INFRALAN® Cat.7 1000 AWG23, S/FTP 4P CPR Cca orange
99985.1-CPR	INFRALAN® Cat.7A 1250 AWG23 S/FTP 4P CPR Cca rape yellow RAL1021
MK7100.1-CPR	INFRALAN® Cat.7A 1200 AWG22, S/FTP 4P CPR B2ca orange RAL 2003
K5525FGR.1	RJ45 Patch cable S/FTP, Cat.6A, Cat.7 Raw cable TPE superflex, 1m, grey
MK6001.1G	RJ45 Patch cable S/FTP, Cat.6A, LSZH, 1m, grey
MK7001.1G	RJ45 Patch cable S/FTP, Cat.6A, LSZH, Cat.7 Raw cable, 1m, grey
K3130.1	RJ45 Patch cable S/FTP, Cat.6A, PUR, Cat.7 Raw cable, TM31, 1m, black
WX4500-FA-V2	Copper- and Fiber Optic-Cable Certifier up to 2500MHz
WX500	Copper Cable Certifier 500MHz



Distribution Panel 19" 1U 24-Port

For holding of modules in keystone format Inclusive cable management Labeling fields with transparent cover Stain relief via cable tie Delivery without modules

ArtNo.	Description
37576.1	Distribution Panel 19" 1U, 24-Port, metallic
37578.1	Distribution Panel 19" 1U, 24-Port, grey RAL7035
37580.1	Distribution Panel 19" 1U, 24-Port, black RAL9005
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Accessory

ArtNo.	Description
38018.2-100	RJ45 Blind Inserts black RAL9011, for keystone holes, PU 100
38018.1-100	RJ45 Blind Inserts white RAL9010, for keystone holes, PU 100







Distribution Panel 19" 0,5U 24-Port

For holding of modules in slimline keystone format Inclusive cable management Labeling fields with transparent cover Stain relief via cable tie Delivery without modules

ArtNo.	Description
37586.1	Distribution Panel 19" 0,5U, 24-Port, grey, RAL7035
37586.1SW	Distribution Panel 19" 0,5U, 24-Port, black, RAL9005

Accessory

ArtNo.	Description
38018.1-100	RJ45 Blind Inserts white RAL9010, for keystone holes, PU 100

ECOLAN® Distribution Panel 19" 1U 24-Port

For holding of modules in keystone format Inclusive cable management Stain relief via cable tie Delivery without modules

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	ArtNo.	Description
	11124115	ECOLAN® Distribution Panel 19" 1U. 24-Port, black

Accessory

Accessory	
ArtNo.	Description
38018 1-100	R145 Rlind Inserts white RAI 9010 for keystone holes P11 100









Multifunctional frame set

Multifunctional frame set in signal white (RAL9003) for universal use, whether for RJ45 data connections, HDMI or display port connections for meeting rooms or data outlets for USB in keystone format. With the multifunctional frame set, you can cover all these applications with just one item.

The frame set is designed in such a way that it is possible to accommodate the various space requirements of cables and connectors during installation. Thus it is also possible to upgrade existing installations and bring them into a structured shape.

RJ45 data connection:

To do this, simply use the 1- or 2-port adapter and equip it with a corresponding keystone (e.g. EFB article: E-20095, E-200100, E-20093) and connect the installation cable. If you have not laid a installation cable but a patch cable, this is also no problem. Then simply use the RJ45 Yesck/Yesck adapter (EFB article: e.g. 37521.1V2, 37486.1) of our portfolio for this purpose. In combination with a multimedia keystone adapter, we recommend the use of a slimline keystone module (E-200100 or E-20095).

Display port connection:

For this you need the display port adapter that has been developed for this frameset. By simply exchanging/inserting the adapter, you have the corresponding interface ready for use. Please note that a maximum connector length of 47.5 mm is not exceeded in the frame set.

HDMI connection:

Simply use the 1- or 2-port adapter and equip it with an HDMI adapter (EFB article: EB520V2) and connect the installed HDMI cables. The highlight here is that you could use, for example, an HDMI adapter and a USB adapter to get active control of the beamer or projection device.

USB connection:

For this purpose, use the 1- or 2-port adapters already supplied and equip them with a USB keystone, regardless of which plug-in face or USB standard (EFB articles: EB534, EB527V2, EB552WS).

Fiber optic connection:

Use the 1- or 2-port adapters already supplied and even equip them with adapters for fiber optic connections. All you need is the fiber optic adapter 37501xx.1 and flangeless adapters (EFB articles: 53515.1, 53511.1) and the box is ready for fiber optic connection.

ArtNo.	Description	Colour
ET-25092	Multifunctional frame set with 1- +2-port adapter Keystone Format(HDMI,USB,RJ45)	white
ET-25092.1	1-Port Adapter for ET-25092.3 for Keystone Format(HDMI, USB, RJ45)	white
ET-25092.2	2-Port Adapter for ET-25092.3 for Keystone Format(HDMI, USB, RJ45)	white
ET-25092.3	Multifunctional frame set without adapter for Keystone Format(HDMI,USB,RJ45)	white
ET-25092.4	Displayport Adapter for ET-25092 and ET-25092.3	white

Accessory

ArtNo.	Description
E-20093	RJ45 Shortbody Keystone STP, Cat.6A 500MHz with internal shutter
E-20095	RJ45 Keystone Slimline, Cat.6A, silver
E-200100	RJ45 Keystone Slimline, Cat.6A, zinc alloy, 10GE
EB520V2	Keystone Snap-In Adapter HDMI A - A, black
37521.1V2	Keystone Snap-In Adapter RJ45 STP, Cat.6A
EB534	Keystone Snap-In Adapter USB2.0 A - B, black
EB527V2	Keystone Snap-In Adapter USB2.0 A - A, black
EB552WS	Keystone Snap-In Adapter USB3.1 white, Type-C-Yesck/C-Yesck, 10Gbit/s, 60W
EB552	Keystone Snap-In Adapter USB3.1 black, Type-C-Yesck/C-Yesck 10Gbit/s, 60W
37501SW.1	Keystone Adapter-Frame, black
37501WS.1	Keystone Adapter-Frame, white
53511.1	Adapter SC Simplex SM one piece, flangeless, blue, ceramic sleeve
53526.1	Adapter E2000®/APC flangeless zirconia sleeve,
53515.1	Adapter LC Duplex SM one piece, flangeless, blue, ceramic sleeve
53458.1	MTP/MPO adapter flangeless, codable up/up or up/down



FT-25092.8







Adapter frame for design compatibility for ET-25092.x and FTTH-OUTLET-xx to various switch programmes

ArtNo.	Description	Colour
ET-25092.5	Adapter frame design compatibility with Berker, RAL9003	white
ET-25092.6	Adapter frame design compatibility with Jung, RAL9003	white
ET-25092.7	Adapter frame design compatibility with Merten, RAL9003	white
ET-25092.8	Adapter frame design compatibility with Gira, RAL9003	white









Frame Set 1/2 - Port for Keystones, DIN49075

For holding all EFB RJ45 Keystone modules Frame set in 1-port or 2-port 40° slanted outlet

Outer ring 80x80mm and central plate 50x50mm according to DIN49075 Compatibel to common switch programms with adapter plate Separate earthing lead for 6.3mm fast-on connection With dust covers and labeling fields

Scope of delivery: Keystone frame, outer ring, central plate

ArtNo.	Description	Colour
ET-25087V2	Frame Set 1-port, for keystones, DIN49075, RAL9010	white
ET-25085V2	Frame Set 2-port, for keystones, DIN49075, RAL9010	white



Keystone Frame Set 2-Port, for Keystones, design capable TAE

Takes 2 RJ45 keystone modules Housing material: aluminium diecast

40° slanted outlet

Design capable, compatible to the **TAE** central plates of switch range manufacturers

Revolving mounting ring at ET-25111K for horizontal and vertical fixing Delivery without modules and central frame

ArtNo.	Description	Colour	
ET-25111K	Keystone Frame revolving 2-Port, for Keystones, design capable	aluminium	
Accessory TAE			
ArtNo. Description			
E-20070 RJ45 Keystone STP, Cat.6A, 500MHz, component certified			
E-20091 RJ45 Keystone STP, Cat.6A, 500MHz, component certified			







Frame Set for 2 x Slimline Keystone, design capable UAE

Zinc diecast mounting frame

For holding 2 keystone slimline modules e.g. E-20095, E-200100 40° slanted outlet

RAL 9010

Design capable, compatible to the **UAE** central plates of switch range manufacturers

Embedded dust cap

Embedded grounding lead for 6.3mm blade receptacle

Scope of delivery: keystone frame, outer ring, central plate

ArtNo.	Description	Colour
ET-25090	Frame Set 2-Port, for slimline keystone module, design capable UAE	white
ET-25090K	UAE mounting frame for 2x Keystone Module, slimline, design capable	

Accessory

ArtNo.	Description
E-20095	RJ45 Keystone Slimline, Cat.6A, silver
E-200100	RJ45 Keystone Slimline, Cat.6A, zinc alloy, 10GE









Frame Set 2-Port, for Keystones, design capable TAE

Takes 2 RJ45 keystone modules

Housing material: aluminium diecast

40° slanted outlet

Design capable, compatible to the **TAE** central plates of switch range manufacturers

Delivery without modules and central frame

ArtNo.	Description	Colour
ET-25111	Frame Set 2-Port, for Keystones, design capable TAE	aluminium

2-Port Frame Set for Keystone, straight outlet DIN49075, RAL9003 signal white

To accommodate all EFB RJ45 Keystone modules(E-200100, E-20095, 37508.1 excluded)

Frame set in 2-port

straight outlet

Outer ring 80x80mm and central plate 50x50mm according to DIN49075 Compatible with any switch range with the adapter plate of the switch range manufacturer

With integrated labelling field

Scope of delivery: Support ring, outer ring, central plate			
	ArtNo.	Description	Colour
	ET-25091	2-Port Frame Set for Keystone, straight outlet, DIN49075, RAL9003 signal white	white
	Accessory		
	ArtNo.	Description	
	E-20093	RJ45 Shortbody Keystone STP, Cat.6A 500MHz with internal shutter	







Floor Tank Holder for 6 or 9 Keystones

Frame set for mounting 6(ET-25178V2) or 9(ET-25179V2) keystone modules For installation in OBO Bettermann floor tanks GB2/GB3 Delivery unequipped

ArtNo.	Description
ET-25178V2	Floor tank holder 2 x for 6 Keystones
ET-25179V2	Floor tank holder 3 x for 9 Keystones

Accessory

ArtNo.	Description
E-20070	RJ45 Keystone STP, Cat.6A, 500MHz, component certified
E-20093	RJ45 Shortbody Keystone STP, Cat.6A 500MHz with internal shutter
E-20091	RJ45 Keystone STP, Cat.6A, 500MHz, component certified



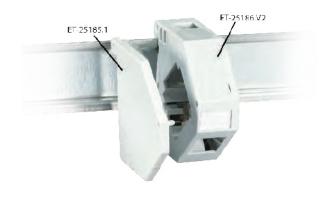
Consolidation Point CP-Box

Robust steel case with divided cover Suitable for installation of 4, 8, 12 or 24 keystone modules Front cover hinged and can be opened tool-free Screwed Rear cover for protection against access Cable entries front and rear with dust-tight sealing strips Separate grounding bolt Protection class IP20 Black powder coating

ArtNo.	Description
ET-25172	Consolidation Point Box, for 4x Keystones
ET-25172.1	Consolidation Point Box, for 8x Keystones
ET-25172.2	Consolidation Point Box, for 12x Keystones
ET-25172.3	Consolidation Point Box, for 24x Keystones

Accessory

ArtNo.	Description
E-20091	RJ45 Keystone STP, Cat.6A, 500MHz, component certified
E-20093	RJ45 Shortbody Keystone STP, Cat.6A 500MHz with internal shutter





Module holder for mounting on DIN-Rail TH35 acc. to DIN EN60715. 1 DU (> 18 mm) width (DIN 43880). For Keystone RJ45 (E-20070, E-20072, E-20090). Side-by-side mountable, with earthing spring. Colour: RAL7035, light grey. An end plate is always necessary. Module holder requires an end plate, several connected module holders also require only one end plate.

ArtNo.	Description
ET-25186.V2	Keystone holder 1-Port, for DIN Rail, plastic
ET-25185.1	Endplate left for Keystone holder ET-25186.V2





Keystone holder for DIN-Rail, Stainless Steel

Keystone holder, stainless steel Intended for mounting on DIN-Rail Delivery without Keystone Modules

ArtNo.	Description
ET-25184.V2	Keystone holder for DIN-Rail, Stainless Steel, for 1 x Keystone
ET-25184.1V2	Keystone holder for DIN-Rail, Stainless Steel, for 2 x Keystone
FT-25184.2V2	Keystone holder for DIN-Rail. Stainless Steel, for 3 x Keystone













Keystone Installation frame 1-Port

Keystone installation frame 1-Port Takes 1 keystone modul

Features:

Housing material: zinc-diecast

Universal use on every flat surface/housing, cable duct or wood/metal cover

Staight outlet: 0°

Dimensions: Length: 35.5mm Width: 19.2mm Height: 9.8mm **Scope of delivery**: Installation frame 1-Port (without modules), 2x installation screws

ArtNo.	Description	Colour
ET-25188.1	Keystone installation frame 1-Port, zinc diecast, metal	Zinc
	coloured	





Keystone Distribution box surface mounting, dust protection self-closing

For 1 or 2 keystone modules from the EFB-Elektronik portfolio Colour: pure white, RAL9010

Material: ABS

Dimensions ET-25166: 37 x 65 x 30 mm (L x W x D)

Dimensions ET-25168: 63 x 65 x 30 mm (L x W x D)

Suitable for wall mounting

Dust cap self closing

Labeling field hinged

Delivery without modules

Scope of delivery:

1 x case

1 x double sided tape

1 x cable tie

2 x self tapping screws 4x14

ArtNo.	Description
ET-25166	Keystone Distribution box surface mounting, 1-Port, dust protection self-closing
ET-25168	Keystone Distribution box surface mounting, 2-Port, dust protection self-closing

Accessory

ArtNo.	Description
H83030.1	DIN-Rail holder set

Keystone Distribution Box

For 6 or 12 keystone modules from the EFB-Elektronik portfolio $\,$

Colour: pure white, RAL9010

Material: ABS

Dimensions: 170 x 110 x 40 mm (L x W x D)

Suitable for wall mounting

Plastic housing consisting of:

 $1\ x$ upper housing shell, $1\ x$ lower housing shell, $2\ x$ adapter inserts with openings for $6\ k$ eystones, $1\ x$ adapter insert for $6\ c$ able entries, $2\ x$ side cover

covei

Delivery without modules

ArtNo.	Description
ET-25174.1	Keystone distribution box surface mounting 6/12 Keystones



KDO-Outlet (SM), IP44

Labeling field hinged Lockable

Colour similar RAL7035, light grey

Dimensions: $93 \times 90 \times 90 \text{ mm}$ / Weight ca. 265 g

Cable entry upside M25 (optional left/right/downside or in the base prepared)

Plastic material poly carbonate + PE Cable entry for cable diameter up to 18 mm

2 keys included in delivery

Delivery without modules

ArtNo.	Description	Colour
ET-25023V2	KDO-Outlet IP44, for 2 x Keystones with labeling field	grey
Accessory		
ArtNo.	Description	
E-20072	RJ45 Keystone STP, Cat.6, 250 MHz	
F-20091	RI45 Keystone STP Cat 64 500MHz, component certified	





Modular-Adapter RJ45 UTP, Cat.6

Cat.6
Connecting adapter for patch cables
2x RJ45 connectors unshielded
Allocation: 1:1
Plastic housing

ArtNo.	Description
37487.1	Modular-Adapter RJ45 UTP, Cat.6





Modular-Adapter RJ45 STP, Cat.5e, metal coloured

Connecting adapter for patch cables 2x RJ45 connectors shielded Allocation: 1:1 wired (37529.1) / crossed (37529.2) Housing metal coloured

ArtNo.	Description
37529.1	Modular-Adapter RJ45 STP, Cat.5e, metal coloured, 1:1



Modular-Adapter RJ45 UTP

Connecting adapter for patch cables 2x RJ45 connectors unshielded Allocation: 1:1 Plastic housing

ArtNo.	Description
37503.1	Modular-Adapter RJ45 UTP





Cat.6

Modular-Adapter RJ45 STP, Cat.6

Cat.6

Connecting adapter for patch cables 2x RJ45 connectors shielded Allocation: 1:1 Metal housing

ArtNo.	Description
37489.1	Modular-Adapter RJ45 STP, Cat.6



Modular-Adapter RJ45 STP, metal coloured

Connecting adapter for patch cables 2x RJ45 connectors unshielded Allocation: 1:1 Housing metal coloured

ArtNo.	Description
37507.1	Modular-Adapter RJ45 UTP, metal coloured





Modular-Adapter RJ45 STP, Cat.6A

Cat.6A

Connecting adapter for patch cables 2x RJ45 connectors shielded Allocation: 1:1 Metal housing

ArtNo.	Description
37489.2	Modular-Adapter R145 STP. Cat. 6



Modular-Adapter RJ45 STP, Cat.6A, with flange for wall mounting

Cat.6A

Connecting adapter for patch cables 2x RJ45 connectors shielded Allocation: 1:1

Alloca	ition: I:I
Metal	housing

ArtNo.	Description
37527.1	Modular-Adapter RJ45 STP, Cat.6A, with flange for wall mounting













Connection module Cat.6A / Class EA 10Gbit/s

Fully shielded zinc diecast bodyhousing Dimension (W x H x L) 18 x 26 x 39 mm

Link performance 10 Gbit/s Class EA acc. to ISO 11801

2 x compact cable manager for AWG26/1..AWG22/1 and AWG26/7..AWG24/7

Max. cable diameter: 8,5mm

Pair management with colour code, printed on cable manager

Reliable differentiation of cable managers by mechanical and colour assignment (plastic black /

white) on the cable coupler and on cable managers

PoE and PoE Plus according to IEEE802.3af/at

360° shield contact and strain relief independent from each other

Gliding stored shield contact

Screw- and line-up through loops at the side of the module

19" panel for holding of 24 x modules available as Accessory

Scope of delivery:

1 x connection module, 2 x cable pre-sorter (black + white), 2 x copper foil, 2 x cable ties



Accessory

ArtNo.	Description
37597.P	Holding Panel for 19" / Wall Mounting of 24 x Coupler 37597.1





Connection module Cat.7 600MHz

Connection module Cat.7 up to 600 MHz
With IDC-terminals
For extending installation cables
For reconnecting damaged cables
For all standard 4- or 8-core installation cables from AWG 26-22
Max. sheath diameter of 10 mm
Housing metallized inside

Accessory

Screw-type strain relief (M3x12) Cable inlet (4 x) With adhesive tapes for fixing

ArtNo.	Description	Colour
37596.1	Connecting module Cat. 7 600MHz with IDC - terminal	black





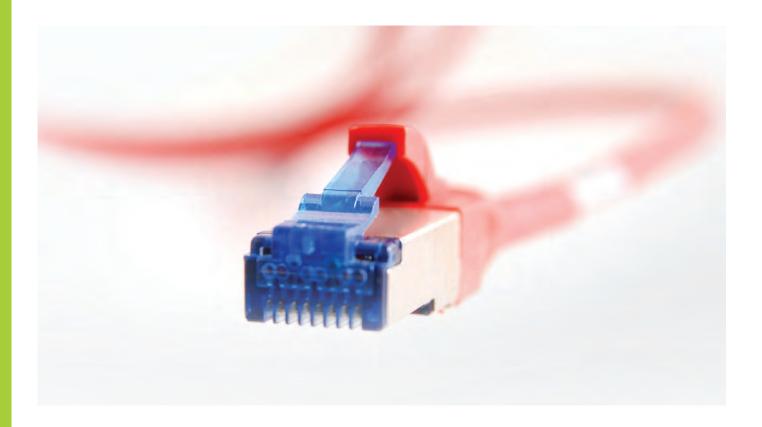
Connection module Cat.6 250MHz

Connection module Cat.6 up to 250 MHz
With IDC-terminals
For extending installation cables
For reconnecting damaged cables
For all standard 4- or 8-core installation cables from AWG 26-22
Screw-type strain relief
Max. sheath diameter of 7.5 mm
Housing metallized

Accessory

Screw-type strain relief (M3x12) Cable inlet (4 x) With adhesive tapes for fixing

ArtNo.	Description	Colour
37596.2	Connecting module Cat.6 250MHz with IDC - terminal	silver



Patch cable Overview	P. 131
Patch cable Office screened	P. 132 - 139
Patch cable Office unscreened	P. 141 - 143
Patch cable Industry screened	P. 145 - 147

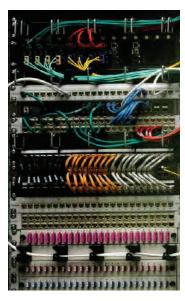
// YOU MIGHT ALSO BE INTERESTED IN:

Patchpanel	P. 150
Network Switches	P. 314
Media Converter	P. 318
Cable Management	P. 240
Product Refinement	P. 87
Keystones	P. 116

PATCH CABLE //

		HRS -20°C - +60°C 90°	S -20°C - +60°C		P HRS red -20°C - +60°C			HRS red ndard	HRS red dard	HRS red dard dard short	HRS red dard dard short short	HRS red dard dard short	HRS red dard dard short short	ard and short short	and and short short red	ard and short short ed	ard and and short	ard ard and short	ard ard short short red red red red red rellow rell	ard and short short rellow red	ard and short short rellow rellow red	ard ard and short and sed sed sed sed sed sed sed sed sed se	ard ard and short short short short short short and sed sed sed sed sed sed sed sed sed se	ard ard short short short rellow rellow and ard ard ard ard ard	ard ard short short short short short short and ard ard ard ard
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cc. to Cat.7	X 100% c	100%	1000,	100%0	X 100% 0																				
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L>ZH COIOURED 6.Z		PVC coloured 5.1 Dätwyler 5502	LSZH red Draka 5.7 UC300	LSZH coloured Draka 5.9 UC900		PVC coloured 5.7		rred	ured red	pau pau pau	pau	rred rred rred rred rred	rred rred rred rred rred rred rred rred	rred rred rred rred rred rred rred rred	rred rred rred rred rred rred rred rred	red red red ured Draka ured Leoni-	ed ced Draka red Draka red Draka red Draka red Draka								
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EL COMM GELT	S/FTP AWG26/7	S/UTP AWG26/7	SF/UTP AWG26/7	S/FTP AWG27/7	SF/UTP AWG26/7	SF/UTP AWG26/7		S/FTP AWG27/7	S/FTP AWG27/7 S/FTP AWG26/7	S/FTP AWG27/7 S/FTP AWG26/7 U/FTP AWG30/7	S/FTP AWG27/7 S/FTP AWG26/7 U/FTP AWG30/7 U/FTP AWG30/7	S/FTP AWG27/7 S/FTP AWG26/7 U/FTP AWG30/7 U/FTP AWG30/7 SF/UTP AWG26/7	S/FTP AWG27/7 S/FTP AWG26/7 U/FTP AWG30/7 U/FTP AWG30/7 SF/UTP AWG26/7	S/FTP AWG27/7 S/FTP AWG26/7 U/FTP AWG30/7 U/FTP AWG30/7 S/FTP AWG26/7 S/FTP AWG26/7	S/FTP AWG27/7 S/FTP AWG26/7 U/FTP AWG30/7 U/FTP AWG30/7 S/FTP AWG26/7 S/FTP AWG27/7 S/FTP AWG27/7	S/FTP AWG27/7 S/FTP AWG26/7 U/FTP AWG30/7 S/FTP AWG26/7 S/FTP AWG26/7 F/UTP AWG26/7 F/UTP AWG26/7	S/FTP AWG27/7 S/FTP AWG26/7 U/FTP AWG30/7 S/FTP AWG26/7 S/FTP AWG27/7 F/UTP AWG27/7 F/UTP AWG27/7 S/FTP AWG27/7	S/FTP AWG27/7 S/FTP AWG26/7 U/FTP AWG30/7 S/FTP AWG26/7 S/FTP AWG27/7 F/UTP AWG27/7 F/UTP AWG27/7 S/FTP AWG27/7	S/FTP AWG27/7 S/FTP AWG26/7 U/FTP AWG26/7 S/FTP AWG26/7 S/FTP AWG27/7 F/UTP AWG27/7 F/UTP AWG27/7 S/FTP AWG27/7 S/FTP AWG27/7 S/FTP AWG27/7	S/FTP AWG27/7 S/FTP AWG26/7 U/FTP AWG30/7 S/FTP AWG27/7 F/UTP AWG27/7 F/UTP AWG27/7 S/FTP AWG27/7 S/FTP AWG27/7 S/FTP AWG27/7 S/FTP AWG27/7 S/FTP AWG27/7	S/FTP AWG27/7 S/FTP AWG27/7 U/FTP AWG20/7 S/FTP AWG27/7 F/UTP AWG27/7 S/FTP AWG27/7 S/FTP AWG27/7 S/FTP AWG27/7 S/FTP AWG27/7 S/FTP AWG27/7 S/FTP AWG27/7				
11110017 17 17	Cat.6A / 500MHz	Cat.5e / 100MHz	Cat.5e / 100MHz	Cat.6A / 500MHz	Cat.5e / 100MHz	Cat.5e / 100MHz		Cat.6 / 250MHz	Cat.6 / 250MHz Cat.6A / 500MHz	Cat.6 / 250MHz Cat.6A / 500MHz Cat.6A / 500MHz	Cat.6 / 250MHz Cat.6A / 500MHz Cat.6A / 500MHz Cat.6A / 500MHz	Cat.6 / 250MHz Cat.6A / 500MHz Cat.6A / 500MHz Cat.6A / 500MHz Cat.6A / 500MHz	Cat.6 / 250MHz Cat.6A / 500MHz	Cat.6 / 250MHz Cat.6A / 500MHz Cat.6A / 500MHz Cat.6A / 500MHz Cat.5e / 100MHz Cat.6A / 500MHz Cat.6A / 500MHz	Cat.6 / 250MHz Cat.6A / 500MHz Cat.6A / 500MHz Cat.6A / 500MHz Cat.5e / 100MHz Cat.5e / 100MHz Cat.5e / 100MHz Cat.5e / 100MHz	Cat.6 / 250MHz Cat.6A / 500MHz Cat.6A / 500MHz Cat.6A / 500MHz Cat.5e / 100MHz Cat.5e / 100MHz Cat.5e / 100MHz Cat.5e / 100MHz	Cat.6 / 250MHz Cat.6A / 500MHz Cat.6A / 500MHz Cat.6A / 500MHz Cat.5e / 100MHz Cat.5e / 100MHz Cat.5e / 100MHz Cat.5e / 100MHz Cat.6A / 500MHz Cat.6A / 500MHz	Cat.6 / 250MHz Cat.6A / 500MHz Cat.6A / 500MHz Cat.6A / 500MHz Cat.5e / 100MHz Cat.5e / 100MHz Cat.5e / 100MHz Cat.6A / 500MHz Cat.6A / 500MHz Cat.6A / 500MHz Cat.6A / 500MHz	Cat.6 / 250MHz Cat.6A / 500MHz Cat.6A / 500MHz Cat.6A / 500MHz Cat.5e / 100MHz Cat.5e / 100MHz Cat.6A / 500MHz	Cat.6 / 250MHz Cat.6A / 500MHz Cat.6A / 500MHz Cat.6A / 500MHz Cat.5e / 100MHz Cat.5e / 100MHz Cat.6A / 500MHz	Cat.6 / 250MHz Cat.6 / 500MHz Cat.6 / 500MHz Cat.6 / 500MHz Cat.5 / 100MHz Cat.5 / 100MHz Cat.6 / 500MHz	Cat.6 / 250MHz Cat.6 / 500MHz	(at.6 / 250MHz (at.6 / 500MHz	(at.6 / 250MHz (at.6 / 500MHz (at.6 / 500MHz)	(at.6 / 250MHz (at.6 / 500MHz
DC1/1001	DCK1001xx.x	K0993.x	K2793.x	K4137x.x	K54xx.x	K5450.x	K551x.x		K5525Fxx.x	K5525Fxx.x K5545xx.x	K5525Fxx.x K5545xx.x K5547xx.x	K5525Fxx.x K5545xx.x K5547xx.x	K5525Fxx.x K5545xx.x K5547xx.x K801x.x	K5525Fxx.x K5545xx.x K5547xx.x K801x.x K805x.x	K5525Fxx.x K5545xx.x K801x.x K805x.x K807x.x	K5525Fxx.x K5547xx.x K801xx K805x.x K807x.x K8452x	K5525Fxx.x K5547xx.x K801xx K805x.x K807x.x K8452.x	K5525Fxx.x K5547xx.x K801x.x K805x.x K807x.x K8452.x K8560xx.x	K5525Fxx.x K5545xx.x K6547xx.x K801x.x K805xx K807x.x K8452.x K8560xx.x K8560xx.x	K5525Fxx.x K5547x.x K801x.x K801x.x K807x.x K8210x.x K8560x.x K8560x.x K8560x.x	K5525FXX.X K5547XX.X K801X.X K801X.X K805X.X K805X.X K870X.X K870X.X K870X.X K870X.X	K5525FXX.X K5547XX.X K801X.X K801X.X K807X.X K8210XX.X K8750X.X K8758X.X K8758X.X K8758X.X K8758X.X	K5525Fxx.x K5545xx.x K801x.x K801x.x K805x.x K807x.x K8210x.x K870x.x K8550x.x K8550x.x K8550x.x K8550x.x	K5525FXX.X K5545X.X K8547X.X K801X.X K807X.X K805X.X K8452.X K8452.X K8708.X.X K8708.X.X K8708.X.X K8708.X.X K8708.X.X	K5525FXX.X K5545X.X K8547XX.X K801XX K807X.X K807X.X K8452.X K8550X.X K8708.XX K8708.XX K8708.XX K8708.XX K85539X.X













RJ45 Patch cable S/FTP, Cat.6, LSZH

The shielded Cat.6 RJ45 patch cable with ensures excellent performance for 5 Gigabit Ethernet applications.

Moulded grommet (patented) Length imprint on the boot Category:.....6
Bandwidth:.....250MHz

Allocation:acc. to TIA/EIA 568B

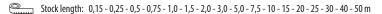
Conductor Material:.....Copper

Connector type:RJ45 Standard, IEC 60603-7-5

Contacts:......Gold plated Locking lever:.....yes
Cable type:.....S/FTP

Flame-retardant:....acc. to IEC60332-1

Halogen free:.....yes
Low smoke:.....yes
Jacket material:LSZH
Cable Construction:4x2x27/7
Outer diameter of the cable: 6.2 mm



	Length-Variants Matrix													
	grey	yellow	red	blue	green	black	orange	brown	white	magenta				
0,15 m	K5510.0,15	K5511.0,15	K5512.0,15	K5513.0,15	K5514.0,15	K5515.0,15	K5516.0,15	K5517.0,15	K5518.0,15	K5519.0,15				
0,25 m	K5510.0,25	K5511.0,25	K5512.0,25	K5513.0,25	K5514.0,25	K5515.0,25	K5516.0,25	K5517.0,25	K5518.0,25	K5519.0,25				
0,5 m	K5510.0,5	K5511.0,5	K5512.0,5	K5513.0,5	K5514.0,5	K5515.0,5	K5516.0,5	K5517.0,5	K5518.0,5	K5519.0,5				
1,0 m	K5510.1	K5511.1	K5512.1	K5513.1	K5514.1	K5515.1	K5516.1	K5517.1	K5518.1	K5519.1				
1,5 m	K5510.1,5	K5511.1,5	K5512.1,5	K5513.1,5	K5514.1,5	K5515.1,5	K5516.1,5	K5517.1,5	K5518.1,5	K5519.1,5				
2,0 m	K5510.2	K5511.2	K5512.2	K5513.2	K5514.2	K5515.2	K5516.2	K5517.2	K5518.2	K5519.2				
3,0 m	K5510.3	K5511.3	K5512.3	K5513.3	K5514.3	K5515.3	K5516.3	K5517.3	K5518.3	K5519.3				
5,0 m	K5510.5	K5511.5	K5512.5	K5513.5	K5514.5	K5515.5	K5516.5	K5517.5	K5518.5	K5519.5				
7,5 m	K5510.7,5	K5511.7,5	K5512.7,5	K5513.7,5	K5514.7,5	K5515.7,5	K5516.7,5	K5517.7,5	K5518.7,5	K5519.7,5				
10,0 m	K5510.10	K5511.10	K5512.10	K5513.10	K5514.10	K5515.10	K5516.10	K5517.10	K5518.10	K5519.10				
15,0 m	K5510.15	K5511.15	K5512.15	K5513.15	K5514.15	K5515.15	K5516.15	K5517.15	K5518.15	K5519.15				
20,0 m	K5510.20	K5511.20	K5512.20	K5513.20	K5514.20	K5515.20	K5516.20	K5517.20	K5518.20	K5519.20				
25,0 m	K5510.25	K5511.25	K5512.25	K5513.25	K5514.25	K5515.25	K5516.25	K5517.25	K5518.25	K5519.25				
30,0 m	K5510.30	K5511.30	K5512.30	K5513.30	K5514.30	K5515.30	K5516.30	K5517.30	K5518.30	K5519.30				
40,0 m	K5510.40	K5511.40	K5512.40	K5513.40	K5514.40	K5515.40	K5516.40	K5517.40	K5518.40	K5519.40				
50,0 m	K5510.50	K5511.50	K5512.50	K5513.50	K5514.50	K5515.50	K5516.50	K5517.50	K5518.50	K5519.50				









RJ45 Patch cable S/FTP, Cat.8.1, BC

The Cat.8.1 patch cable is suitable for 25GBASE-T and 40GBASE-T applications based on RJ45. The Cat.8.1 has a frequency range of up to 2000MHz and a maximum transmission distance of currently 30m.

Length imprint on grommet



Bandwidth:.....2000MHz Allocation:acc. to TIA/EIA 568B

Conductor Material:.....Copper

Connector type:RJ45 Standard, IEC 60603-7-81

KontakteContacts:..... Gold plated Locking lever:....yes Cable type:.....S/FTP Jacket material:LSZH Cable construction:.....4x2x24/7 Outer diameter of the cable:

Anti-kink sleeve:.....plugged in

Stock length: 0,5 - 1,0 - 2,0 - 3,0 - 5,0 - 7,5 - 10,0 m

Length-Variants Matrix												
	grey	yellow	red	blue	green	black						
0,5 m	K5528GR.0,5	K5528GE.0,5	K5528RT.0,5	K5528BL.0,5	K5528GN.0,5	K5528SW.0,5						
1,0 m	K5528GR.1	K5528GE.1	K5528RT.1	K5528BL.1	K5528GN.1	K5528SW.1						
2,0 m	K5528GR.2	K5528GE.2	K5528RT.2	K5528BL.2	K5528GN.2	K5528SW.2						
3,0 m	K5528GR.3	K5528GE.3	K5528RT.3	K5528BL.3	K5528GN.3	K5528SW.3						
5,0 m	K5528GR.5	K5528GE.5	K5528RT.5	K5528BL.5	K5528GN.5	K5528SW.5						
7,5 m	K5528GR.7,5	K5528GE.7,5	K5528RT.7,5	K5528BL.7,5	K5528GN.7,5	K5528SW.7,5						
10,0 m	K5528GR.10	K5528GE.10	K5528RT.10	K5528BL.10	K5528GN.10	K5528SW.10						











RJ45 Patch cable S/FTP, Cat.6A, Cat.7 raw cable TPE superflex

The shielded Cat.6A RJ45 patch cable with **component certification** from the GHMT ensures excellent performance for 10 Gigabit Ethernet applications. The TPE outer sheath makes the cable highly flexible and thus easier to handle. The moulded grommet captivates with its slim design and thus simplifies the insertion process in cramped conditions.

Moulded grommet, slim design

Length imprint on the boot

Category:.....6A (IEC) Transmission: 10Gbit Bandwidth:.....500MHz Allocation:acc. to TIA/EIA 568B

Conductor material:.....Copper

Connector type:RJ45 Standard, IEC 60603-7-51

...50 µ" Gold plated Contacts:.....

Locking lever:.....yes Cable type:.....S/FTP Raw cable:Cat.7

..acc. to IEC60754-2 Halogen free:..... Low smoke:.....acc. to IEC61034 Jacket-material:.....TPE/LSZH Cable construction:.....4x2x26/7

Outer diameter of the cable: 6.5 mm

Stock length: 0,15 - 0,25 - 0,5 - 1,0 - 1,5 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 - 25 - 30 m

			Length-\	/ariants Matrix			
	grey	yellow	red	blue	green	black	white
0,15 m	K5525FGR.0,15	K5525FGE.0,15	K5525FRT.0,15	K5525FBL.0,15	K5525FGN.0,15	K5525FSW.0,15	K5525FWS.0,15
0,25 m	K5525FGR.0,25	K5525FGE.0,25	K5525FRT.0,25	K5525FBL.0,25	K5525FGN.0,25	K5525FSW.0,25	K5525FWS.0,25
0,5 m	K5525FGR.0,5	K5525FGE.0,5	K5525FRT.0,5	K5525FBL.0,5	K5525FGN.0,5	K5525FSW.0,5	K5525FWS.0,5
1,0 m	K5525FGR.1	K5525FGE.1	K5525FRT.1	K5525FBL.1	K5525FGN.1	K5525FSW.1	K5525FWS.1
1,5 m	K5525FGR.1,5	K5525FGE.1,5	K5525FRT.1,5	K5525FBL.1,5	K5525FGN.1,5	K5525FSW.1,5	K5525FWS.1,5
2,0 m	K5525FGR.2	K5525FGE.2	K5525FRT.2	K5525FBL.2	K5525FGN.2	K5525FSW.2	K5525FWS.2
3,0 m	K5525FGR.3	K5525FGE.3	K5525FRT.3	K5525FBL.3	K5525FGN.3	K5525FSW.3	K5525FWS.3
5,0 m	K5525FGR.5	K5525FGE.5	K5525FRT.5	K5525FBL.5	K5525FGN.5	K5525FSW.5	K5525FWS.5
7,5 m	K5525FGR.7,5	K5525FGE.7,5	K5525FRT.7,5	K5525FBL.7,5	K5525FGN.7,5	K5525FSW.7,5	K5525FWS.7,5
10,0 m	K5525FGR.10	K5525FGE.10	K5525FRT.10	K5525FBL.10	K5525FGN.10	K5525FSW.10	K5525FWS.10
15,0 m	K5525FGR.15	K5525FGE.15	K5525FRT.15	K5525FBL.15	K5525FGN.15	K5525FSW.15	K5525FWS.15
20,0 m	K5525FGR.20	K5525FGE.20	K5525FRT.20	K5525FBL.20	K5525FGN.20	K5525FSW.20	K5525FWS.20
25,0 m	K5525FGR.25	K5525FGE.25	K5525FRT.25	K5525FBL.25	K5525FGN.25	K5525FSW.25	K5525FWS.25
30,0 m	K5525FGR.30	K5525FGE.30	K5525FRT.30	K5525FBL.30	K5525FGN.30	K5525FSW.30	K5525FWS.30



RJ45 Patch cable S/FTP, Cat.6A

The shielded Cat.6A RJ45 patch cable ensures excellent performance for 10 **Gigabit** Ethernet applications. The moulded grommet captivates with its **slim design** and thus simplifies the insertion process in cramped conditions.

Length imprint on boot **Available in 11 colours**

Category:	.6A (TIA)
Transmission:	.10Gbit
Bandwidth:	.500MHz
Allocation:	.acc. to TIA/EIA 568B
Conductor material:	.Copper
Connector type:	.RJ45 Standard, IEC 60603-7-51
Contacts:	.Gold plated
Locking lever:	.yes
Cable type:	.S/FTP
Raw cable:	.Cat.6A
Falme retardant:	.yes
Halogen free:	.yes
Low smoke:	.yes
Jacket material:	LSZH
Cable construction:	.4x2x27/7

Stock length: 0,15 - 0,25 - 0,5 - 1,0 - 1,5 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 - 25 - 30 - 40 - 50 m

	23 - 34 - 04 - 011											
					Length-\	Variants Ma	trix					
	grey	yellow	red	blue	green	black	orange	white	brown	magenta	violet	
0,15 m	MK6001.0,15G	MK6001.0,15Y	MK6001.0,15R	MK6001.0,15BL	MK6001.0,15GR	MK6001.0,15B	MK6001.0,150	MK6001.0,15W	MK6001.0,15BR	MK6001.0,15MA	MK6001.0,15VI	
0,25 m	MK6001.0,25G	MK6001.0,25Y	MK6001.0,25R	MK6001.0,25BL	MK6001.0,25GR	MK6001.0,25B	MK6001.0,250	MK6001.0,25W	MK6001.0,25BR	MK6001.0,25MA	MK6001.0,25VI	
0,5 m	MK6001.0,5G	MK6001.0,5Y	MK6001.0,5R	MK6001.0,5BL	MK6001.0,5GR	MK6001.0,5B	MK6001.0,50	MK6001.0,5W	MK6001.0,5BR	MK6001.0,5MA	MK6001.0,5VI	
1,0 m	MK6001.1G	MK6001.1Y	MK6001.1R	MK6001.1BL	MK6001.1GR	MK6001.1B	MK6001.10	MK6001.1W	MK6001.1BR	MK6001.1MA	MK6001.1VI	
1,5 m	MK6001.1,5G	MK6001.1,5Y	MK6001.1,5R	MK6001.1,5BL	MK6001.1,5GR	MK6001.1,5B	MK6001.1,50	MK6001.1,5W	MK6001.1,5BR	MK6001.1,5MA	MK6001.1,5VI	
2,0 m	MK6001.2G	MK6001.2Y	MK6001.2R	MK6001.2BL	MK6001.2GR	MK6001.2B	MK6001.20	MK6001.2W	MK6001.2BR	MK6001.2MA	MK6001.2VI	
3,0 m	MK6001.3G	MK6001.3Y	MK6001.3R	MK6001.3BL	MK6001.3GR	MK6001.3B	MK6001.30	MK6001.3W	MK6001.3BR	MK6001.3MA	MK6001.3VI	
5,0 m	MK6001.5G	MK6001.5Y	MK6001.5R	MK6001.5BL	MK6001.5GR	MK6001.5B	MK6001.50	MK6001.5W	MK6001.5BR	MK6001.5MA	MK6001.5VI	
7,5 m	MK6001.7,5G	MK6001.7,5Y	MK6001.7,5R	MK6001.7,5BL	MK6001.7,5GR	MK6001.7,5B	MK6001.7,50	MK6001.7,5W	MK6001.7,5BR	MK6001.7,5MA	MK6001.7,5VI	
10,0 m	MK6001.10G	MK6001.10Y	MK6001.10R	MK6001.10BL	MK6001.10GR	MK6001.10B	MK6001.100	MK6001.10W	MK6001.10BR	MK6001.10MA	MK6001.10VI	
15,0 m	MK6001.15G	MK6001.15Y	MK6001.15R	MK6001.15BL	MK6001.15GR	MK6001.15B	MK6001.150	MK6001.15W	MK6001.15BR	MK6001.15MA	MK6001.15VI	
20,0 m	MK6001.20G	MK6001.20Y	MK6001.20R	MK6001.20BL	MK6001.20GR	MK6001.20B	MK6001.200	MK6001.20W	MK6001.20BR	MK6001.20MA	MK6001.20VI	
25,0 m	MK6001.25G	MK6001.25Y	MK6001.25R	MK6001.25BL	MK6001.25GR	MK6001.25B	MK6001.250	MK6001.25W	MK6001.25BR	MK6001.25MA	MK6001.25VI	
30,0 m	MK6001.30G	MK6001.30Y	MK6001.30R	MK6001.30BL	MK6001.30GR	MK6001.30B	MK6001.300	MK6001.30W	MK6001.30BR	MK6001.30MA	MK6001.30VI	
40,0 m	MK6001.40G	MK6001.40Y	MK6001.40R	MK6001.40BL	MK6001.40GR	MK6001.40B	MK6001.400	MK6001.40W	MK6001.40BR	MK6001.40MA	MK6001.40VI	
50,0 m	MK6001.50G	MK6001.50Y	MK6001.50R	MK6001.50BL	MK6001.50GR	MK6001.50B	MK6001.500	MK6001.50W	MK6001.50BR	MK6001.50MA	MK6001.50VI	











RJ45 Patch cable S/FTP, Cat.6A, LSZH, Cat.7 raw cable

The shielded Cat.6A RJ45 patch cable ensures excellent performance for 10 Gigabit Ethernet applications. The moulded grommet captivates with its **slim design** and thus simplifies the insertion process in cramped conditions.

Length imprint on boot Available in 8 colours

Category:	6A (TIA)
Transmission:	10Gbit
Bandwidth:	500MHz
Allocation:	acc. to TIA/EIA 568B
Conductor material:	Copper
Connector type:	RJ45 Standard, IEC 60603-7-5
Contacts:	Gold plated
Locking lever:	yes
Cabletype:	S/FTP
Raw cable:	Cat.7
Falme retardant:	acc. to IEC60332-1
Halogen free:	acc. to IEC60754-2
Low smoke:	acc. to IEC61034
Jacket material:	LSZH
Cable construction:	4x2x26/7

Stock length: 0,25 - 0,5 - 1,0 - 1,5 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 - 25 - 30 m

	Length-Variants Matrix												
	grey	yellow	red	blue	green	black	orange	white					
0,25 m	MK7001.0,25G	MK7001.0,25Y	MK7001.0,25R	MK7001.0,25BL	MK7001.0,25GR	MK7001.0,25B	MK7001.0,250	MK7001.0,25W					
0,5 m	MK7001.0,5G	MK7001.0,5Y	MK7001.0,5R	MK7001.0,5BL	MK7001.0,5GR	MK7001.0,5B	MK7001.0,50	MK7001.0,5W					
1,0 m	MK7001.1G	MK7001.1Y	MK7001.1R	MK7001.1BL	MK7001.1GR	MK7001.1B	MK7001.10	MK7001.1W					
1,5 m	MK7001.1,5G	MK7001.1,5Y	MK7001.1,5R	MK7001.1,5BL	MK7001.1,5GR	MK7001.1,5B	MK7001.1,50	MK7001.1,5W					
2,0 m	MK7001.2G	MK7001.2Y	MK7001.2R	MK7001.2BL	MK7001.2GR	MK7001.2B	MK7001.20	MK7001.2W					
3,0 m	MK7001.3G	MK7001.3Y	MK7001.3R	MK7001.3BL	MK7001.3GR	MK7001.3B	MK7001.30	MK7001.3W					
5,0 m	MK7001.5G	MK7001.5Y	MK7001.5R	MK7001.5BL	MK7001.5GR	MK7001.5B	MK7001.50	MK7001.5W					
7,5 m	MK7001.7,5G	MK7001.7,5Y	MK7001.7,5R	MK7001.7,5BL	MK7001.7,5GR	MK7001.7,5B	MK7001.7,50	MK7001.7,5W					
10,0 m	MK7001.10G	MK7001.10Y	MK7001.10R	MK7001.10BL	MK7001.10GR	MK7001.10B	MK7001.100	MK7001.10W					
15,0 m	MK7001.15G	MK7001.15Y	MK7001.15R	MK7001.15BL	MK7001.15GR	MK7001.15B	MK7001.150	MK7001.15W					
20,0 m	MK7001.20G	MK7001.20Y	MK7001.20R	MK7001.20BL	MK7001.20GR	MK7001.20B	MK7001.200	MK7001.20W					
25,0 m	MK7001.25G	MK7001.25Y	MK7001.25R	MK7001.25BL	MK7001.25GR	MK7001.25B	MK7001.250	MK7001.25W					
30,0 m	MK7001.30G	MK7001.30Y	MK7001.30R	MK7001.30BL	MK7001.30GR	MK7001.30B	MK7001.300	MK7001.30W					















RJ45 Patch cable S/FTP, Cat.6A, VC LED

The shielded Cat.6A RJ45 patch cable provides excellent performance for 10 Gigabit Ethernet applications. With the help of a detector (Art.-No. DC10001 oder DC10001USB) light emitting diodes are excited in both RJ45 plugs of the patch cable. The illuminated RJ45 plugs make it easy to track the cable path

Length imprint on the grommet

Transmission: 10Gbit Bandwidth:.....500MHz Allocation:acc. to TIA/EIA 568B Conductor material:.....Copper Connector type:RJ45 LED, IEC 60603-7-51 Contacts:.....Gold plated Locking lever:....yes Cable type:.....S/FTP Flame retardant:....acc. to IEC60332-3 Halogen free:.....acc. to IEC60754-2 Low smoke:....acc. to IEC61034 Jacket material:LSZH Cable construction:.....4x2x26/7 Outer diameter of the cable:

Category:.....6A (TIA)



Stock length: 0,5 - 1,0 - 1,5 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 - 30 m

ArtNo.	Colour outer sheath
DCK1001GR.x	grey















RJ45 Patch cable S/FTP,Cat.6A, 26AWG BC, LSZH, white, lockable (blue)

RJ45 patch cord S/FTP, Cat.6A, 26AWG BC, LSZH, white, lockable with two RJ45 plugs according to EN 60603-7-51, Cat.6A, with blue lock to prevent unauthorised or unintentional disconnection and lockable, sheath colour white, sheath material LSZH, Cat.7 raw cable with pure copper. The patch cables meet the valid channel requirements for 10GBase-T transmissions in a cabling link.

Delivery wihtout keys

accessory

Art.-No. Description K5539.S Key for K5539.x blue

Transmission:	.10Gbit;2,5Gbit;5Gbit
Bandwidth:	.500MHz
Allocation:	.acc. to TIA/EIA 568B
Conductor material:	.Copper
Connector type:	.RJ45 Standard, IEC 60603-7-5
Contacts:	.50 μ" Gold plated
Locking lever:	.no
Cable type:	.S/FTP
Raw cable:	.Cat.7
Flame retardant:	.acc. to IEC60332-1
Halogen free:	.acc. to IEC60754-2
Low smoke:	.acc. to IEC61034
Jacket Material:	.LSZH

Stock length: 0,5 - 1,0 - 2,0 - 3,0 - 5,0 m

Cable construction:.....4x2x26/7

Category:.....6A (TIA)

ArtNo.	Colour outer sheath
K5539WS.x	white













RJ45 patch cable extension Cat.6A, S/FTP, AWG26

Shielded RJ45 patch cable extension Cat.6A for transmissions according to ISO11801 for up to 10Gbit/s.

You have already installed a patch cable in your study/office. Previously, the cable was sufficient up to your device, but now that the office has been remodelled, it is no longer sufficient. Instead of replacing the entire patch cable because it has been laid at great expense, simply connect the RJ45 patch cable extension in the length that suits you to your end device.

In addition, the short version of the patch cable extension can be used to protect your device connections. Especially in the home office, with a lot of assembly and disassembly of the e.g. notebook, the socket of the notebook is heavily stressed. This can be circumvented by "interposing" the patch cable extension, because here you are then stressing the socket of the extension.

The RJ45 patch cable extension Cat.6A can be used with any conventional devices with RJ45 interface, such as computers, notebooks, DSL modems, routers, switches, game consoles, televisions and many more.

Category:6A ((TIA)
Transmission:10G	bit;2.5Gbit;5Gbit
Bandwidth:500	MHz
Allocation:acc.	TIA/EIA 568B
Conductor Material:Cop	per
Connector type:RJ4	5 Standard, IEC 60603-7-51
Contacts:3 µ"	gold plated
Locking lever:True	2
Cable type:S/F7	ГР
Raw cable:Cat.	6A
Jacket material:LSZ	Н
Cable construction:4x2	x26/7
Outer diameter of the cable:	: 6.2 mm
Anti-kink sleeve:mou	ulded



Stock Lengths: 1,0 - 2,0 - 3,0 - 5,0 - 10 m

ArtNo.	Colour outer sheath
K5546SW.x	black
K5546WS.x	white













RJ45 Patch cable S/FTP, Cat.6A, LSZH, one side 90° angled

The shielded Cat.6A RJ45 patch cable with ensures excellent performance for 10 Gigabit Ethernet applications. The moulded grommet captivates with its slim design and thus simplifies the insertion process in cramped conditions. In addition, one side of the patch cord has a 90° angle, which makes patching even easier.

Length imprint on boot

Category:.....6A (TIA) Transmission:10Gbit;2.5Gbit;5Gbit Bandwidth:.....500MHz Allocation:acc. TIA/EIA 568B Conductor Material:.....Copper Connector type:RJ45 Standard, IEC 60603-7-51 Contacts:.....Gold plated Locking lever:.....True Cable type:.....S/FTP Raw cable:Cat.6A Flame-retardant:.....yes Halogen free:....yes Low smoke:....yes Jacket material:LSZH Cable construction:.....4x2x27/7



.... Stock Lengths: 0,25 - 0,5 - 1,0 - 2,0 - 3,0 - 5,0 m

ArtNo.	Colour outer sheath
MK6001W.xB	black
MK6001w.xG	grey



ArtNo.	Colour outer sheath
K5545GR.x	grey
K5545GE.x	yellow
K5545RT.x	red
K5545BL.x	blue
K5545GN.x	green
K5545SW.x	black
K5545WS.x	white









RJ45 Flat patch cable U/FTP, Cat.6A, PVC

The pair-shielded Cat.6A RJ45 flat patch cable ensures excellent performance for 10 Gigabit Ethernet applications. The flat patch cable impresses with its flat construction and is with 2.2mm height ideal for laying e.g. behind ledges or under a carpet. The cast grommet captivates with its **slim design** and thus simplifies the plugging process in confined spaces.

Plug type: short plug

Category:6A (TIA)
Bandwidth:500MHz
Allocation:acc. TIA/EIA 568B
Conductor Material:Copper
Connector type:RJ45 short version, IEC 60603-7-51
Contacts:Gold plated
Locking lever:yes
Cable type:U/FTP
Jacket material:PVC
Cable construction:4x2x30/7
Outer diameter of the cable: 7.0*2.2 mm
Anti-kink sleeve:moulded
Stock Lengths: 0,25 - 0,5 - 1,0 - 1,5 - 2,0 - 3,0 - 5,0 m



ArtNo.	Colour outer sheath
K5547SW.x	black
K5547WS.x	white





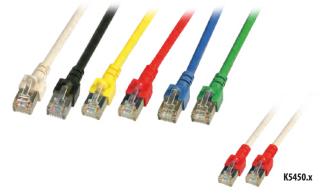




RJ45 Patch cable U/FTP, Cat.6A, Rawcable TPE, 4,0mm ultraflex

The shielded Cat.6A RJ45 patch cable ensures excellent performance for 10 Gigabit Ethernet applications. The TPE outer sheath makes the cable highly **flexible** and thus easier to handle. The moulded grommet captivates with its slim design and simplifies the plugging process in cramped conditions. The **short connector** in combination with the **thin outer jacket** enables a very high packing density.

Category:
Conductor Material:Copper
Connector type:RJ45 short version, IEC 60603-7-51
Contacts:Gold plated
Locking lever:yes
Cable type:U/FTP
Low smoke:Yes
Jacket material:TPE/LSZH
Cable construction:4x2x30/7
Outer diameter of the cable: 4.0 mm
Anti-kink sleeve:moulded
Stock length: 0,15 - 0,25 - 0,5 - 1,0 - 2,0- 3,0 - 5,0 - 7,5 - 10 m



	1	I
ArtNo.	Colour outer sheath	Allocation
K5455.x	grey	TIA568B
K5457.x	yellow	TIA568B
K5458.x	red	TIA568B
K5459.x	blue	TIA568B
K5460.x	green	TIA568B
K5456.x	black	TIA568B
K5450.x	grey	1-3, 2-6, 3-1, 4-7, 5-8, 6-2, 7-4, 8-5









RJ45 Patch cable SF/UTP, Cat.5e, PVC, CCA

The Cat.5e RJ45 patch cable ensures very good characteristics for 2.5 Gigabit Ethernet applications. Due to the **double shielding**, the patch cable is even better protected against EMC radiation.

Cast anti-kink grommet (patented) Length imprint on the grommet

Category:5E
Conductor Material:CCA
Connector type:RJ45 Standard,
Contacts:Gold plated
Locking lever:True
Cable type:SF/UTP
Jacket material:PVC
Cable construction:4x2x26/7
Outer diameter of the cable: 5.7 mm
Anti-kink sleeve:plugged in



Stock Lengths: 0,5 - 1,0 - 2,0 - 3,0 - 5,0 - 10 - 15 - 20 m

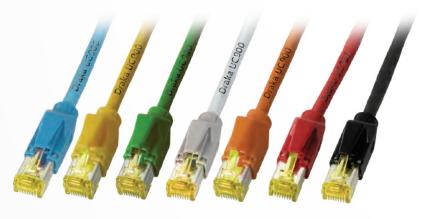


The Cat.6A RJ45 patch cable **manufactured in Europe** guarantees very good characteristics for **10 Gigabit** Ethernet applications. The patch cables are assembled from high quality Hirose connectors in combination with raw cables from renowned European manufacturers.

Allocation: acc. to TIA/EIA 568B Contacts: Gold plated Locking lever: yes

FEATURES OF PATCH CABLE

Type designation	ArtNo.	Category	Jacket	AWG/Conductor	Ø in mm	Euroclass	Cable construction	Max. Frequency
Draka UC900 SS27	9970x.x	7	FRNC-B	27/7/ Cu, tinned	5.9	Eca	S/FTP	1000 MHz
Leoni-Kerpen F6-90S/F	9962x.x	7	FRNC-B	27/7/Cu, blank	5.7	Dca	S/FTP	900 MHz
Dätwyler CU 7702 flex	9871x.x	7	FRNC-C	26/7/Cu, blank	5.8		S/FTP	1000 MHz
Dätwyler CU 5502 flex	9870x.x	5e	PVC	26/7/ Cu, tinned	5.1		S/UTP	300 MHz
Draka UC300 HS26	9925x.x	5e	FRNC-B	26/7/ Cu, tinned	5.7		SF/UTP	300 MHz
Draka UC300 S26	9915x.x	5e	FRNC-B	26/7/ Cu, tinned	5.0		F/UTP	300 MHz







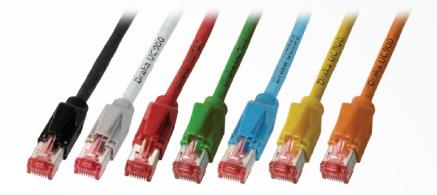


RJ45 Patch cable S/FTP, Cat.6A, TM31

Stock length: 0,15 - 0,25 - 0,5 - 1,0 - 1,5 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 - 25 - 30 - 40 - 50 m

ArtNo. Dätwyler CU 7702 flex	Colour outer sheath
K8580BL.x	blue
K8580GE.x	yellow
K8580GN.x	green
K8580GR.x	grey
	orange
K8580RT.x	red
K8580SW.x	black
	white
	K8580BL.x K8580GE.x K8580GN.x K8580GR.x K8580RT.x







K4137BL.x



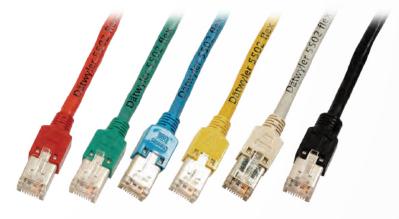




RJ45 Patch cable S/FTP, Cat.6A, TM21

Stock length: 0,15 - 0,25 - 0,5 - 1,0 -1,5 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 - 25 - 30 - 40 - 50 m

ArtNo. Draka UC900	ArtNo. Draka UC900 2xTM21 90°	ArtNo. Leoni-Kerpen F6-90S/F	ArtNo. Dätwyler CU 7702 flex	Colour outer sheath
K8050.x	K4137SW.x		K8708SW.x	black
K8051.x	K4137GR.x	K8210GR.x	K8708GR.x	grey
K8052.x	K4137RT.x	K8210RT.x	K8708RT.x	red
K8053.x	K4137GN.x	K8210GN.x	K8708GN.x	green
K8054.x	K4137BL.x	K8210BL.x	K8708BL.x	blue
K8055.x	K4137GE.x	K8210GE.x	K8708GE.x	yellow
K8056.x	K41370R.x		K87080R.x	orange
K8058.x	K4137WS.x			white





K0993.x







RJ45 Patch cable, Cat.5e, TM11

Stock length: 0,15 - 0,25 - 0,5 - 1,0 - 1,5 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 - 25 - 30 - 40 - 50 m Stock length K2793.x: 0,5 - 1,0 - 1,5 - 2,0 - 3,0 - 5,0 - 10 m

ArtNo. Draka UC300 SF/UTP	ArtNo. Draka UC300 F/UTP	ArtNo. Dätwyler CU 5502 flex	Colour outer sheath
K8012.x	K8076.x	K8703.x	red
K8013.x	K8073.x	K8706.x	green
K8014.x	K8074.x	K8704.x	blue
K8015.x	K8075.x	K8702.x	yellow
K8017.x	K8452.x	K8701.x	grey
	K8072.x	K8705.x	black
K2793.x / Crossed pinning			red
		K0993.x / 1x 90° TM11	black

ArtNo.:	Category/ Band- width	Unshielded AWG	Boot / Length Imprint	Jacket	Cable dia- meter	Gigabit Ethernet	2,5 Gigabit Ethernet	5 Gigabit Ethernet	10 Gigabit Ethernet	Flexibility	Clip Pre- dection	Conductor	Plug	Temperature Range
K8097.x	Cat.5e / 100MHz	U/UTP AWG24/7	red moulded / yes	PVC gray	5.4 mm	×	×			nsnal	no	CCA	RJ45 standard	ე。09+ - ე。0
K809x.x	Cat.5e / 100MHz	U/UTP AWG24/7	moulded / yes	PVC coloured	5.4 mm	×	×			usual	no	CCA	RJ45 standard	J ₀ 09+ - J ₀ 0
K8100xx.x	Cat.6 / 250MHz	U/UTP AWG24/7	moulded / yes	PVC coloured	5.9 mm	×	×	×		nsnal	no	CCA	RJ45 standard	ე。09+ - ე。0
K8109xx.x	Cat.6A / 500MHz	U/UTP AWG24/7	moulded / yes	LSZH coloured	6.0 mm	×	×	×	×	nsnal	yes	100% copper	RJ45 blue	ე。09+ - ე。0
K8104xx.x	Cat.6 / 250MHz	U/UTP AWG24/7	moulded / yes	LSZH coloured	5.9 mm	×	×	×		usual	yes	CCA	RJ45 standard	ე。09+ - ე。0
K8107xx.x	Cat.6A / 500MHz	U/UTP AWG30/7	moulded / no	PVC coloured	6.0 x 1.6 mm	×	×	×	×	very good	yes	100% copper	RJ45 ultra short -20°C - +55°C	-20°C - +55°C
K8108xx.x	Cat.6A / 500MHz	U/UTP AWG30/7	moulded / yes	TPE coloured	3.6 mm	×	×	×	×	ultraflex	yes	100% copper	RJ45 ultra short	-20°C - +75°C
K8110xx.x	Cat.5e / 100MHz	U/UTP AWG24/7	moulded / yes	LSZH coloured 5.4 mm	5.4 mm	×	×			usual	yes	CCA	RJ45 standard	ე。09+- ე。0
K8456.x	Cat.5e / 100MHz	U/UTP AWG24/7	moulded/yes	PVC gray	5.4 mm	×	×			nsnal	n0	CCA	RJ45 standard	ე。09+-ე。0













RJ45 Patch cable U/UTP, Cat.6A, LSZH, Premium, 500MHz

The unshielded Cat.6A RJ45 premium patch cable ensures very good characteristics for **10 Gigabit Ethernet** applications. The moulded grommet captivates with its slim design and thus simplifies the insertion process in $cramped\ conditions.$

Cast anti-kink grommet with length imprint, slim design

Category:.....6A (TIA) Transmission: 10Gbit Bandwidth:.....500MHz Allocation:acc. TIA/EIA 568B Conductor Material:.....Copper Connector type:RJ45 Standard, IEC 60603-7-41 Contacts:.....50 $\mu^{\prime\prime}$ gold plated Locking lever:....yes Cable type:.....U/UTP Flame-retardant:....acc. IEC60332-1 Halogen free:....yes Low smoke:.....yes Jacket material:LSZH Cable construction:.....4x2x24/7 Outer diameter of the cable: 6.0 mm

Stock length: 0,15 - 0,25 - 0,5 - 1,0 - 1,5 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 m

ArtNo.	Colour outer sheath
K8109BL.x	blue
K8109GE.x	yellow
K8109GN.x	green
K8109GR.x	grey
K8109RT.x	red
K8109SW.x	black
K8109WS.x	white

			Length-\	Variants Matrix			
	grey	yellow	red	blue	green	black	white
0,15 m	K8109GR.0,15	K8109GE.0,15	K8109RT.0,15	K8109BL.0,15	K8109GN.0,15	K8109SW.0,15	K8109WS.0,15
0,25 m	K8109GR.0,25	K8109GE.0,25	K8109RT.0,25	K8109BL.0,25	K8109GN.0,25	K8109SW.0,25	K8109WS.0,25
0,5 m	K8109GR.0,5	K8109GE.0,5	K8109RT.0,5	K8109BL.0,5	K8109GN.0,5	K8109SW.0,5	K8109WS.0,5
1,0 m	K8109GR.1	K8109GE.1	K8109RT.1	K8109BL.1	K8109GN.1	K8109SW.1	K8109WS.1
1,5 m	K8109GR.1,5	K8109GE.1,5	K8109RT.1,5	K8109BL.1,5	K8109GN.1,5	K8109SW.1,5	K8109WS.1,5
2,0 m	K8109GR.2	K8109GE.2	K8109RT.2	K8109BL.2	K8109GN.2	K8109SW.2	K8109WS.2
3,0 m	K8109GR.3	K8109GE.3	K8109RT.3	K8109BL.3	K8109GN.3	K8109SW.3	K8109WS.3
5,0 m	K8109GR.5	K8109GE.5	K8109RT.5	K8109BL.5	K8109GN.5	K8109SW.5	K8109WS.5
7,5 m	K8109GR.7,5	K8109GE.7,5	K8109RT.7,5	K8109BL.7,5	K8109GN.7,5	K8109SW.7,5	K8109WS.7,5
10,0 m	K8109GR.10	K8109GE.10	K8109RT.10	K8109BL.10	K8109GN.10	K8109SW.10	K8109WS.10
15,0 m	K8109GR.15	K8109GE.15	K8109RT.15	K8109BL.15	K8109GN.15	K8109SW.15	K8109WS.15











RJ45 Flat Patch cable U/UTP, Cat.6A, PVC

The unshielded Cat.6A RJ45 flat patch cable ensures excellent performance for 10 Gigabit Ethernet applications. The flat patch cable impresses with its flat construction and is with 1.6mm height ideal for laying e.g. behind ledges or under a carpet. The cast grommet captivates with its **slim design** and thus simplifies the plugging process in confined

Cable diameter: 6.0 x 1.6 mm Plug type: short plug

Category:	6A (TIA)
Bandwidth:	500MHz
Allocation:	acc. TIA/EIA 568B

Conductor Material:.....Copper

Connector type:RJ45 short version, IEC 60603-7-51

Contacts:.....3 μ " gold plated

Locking lever:.....Yes Cable type:.....U/UTP Jacket material:PVC Cable construction:.....4x2x30/7

☐ Stock Lengths: 0,25 - 0,5 - 1,0 - 1,5 - 2,0 - 3,0 - 5,0 m



ArtNo.	Colour outer sheath
K8107SW.x	black
K8107WS.x	white









RJ45 Patch cable U/UTP, Cat.6A, Raw cable TPE, 3,6mm ultraflex

The shielded Cat.6A RJ45 patch cable ensures excellent performance for 10 Gigabit Ethernet applications. The TPE outer sheath makes the cable highly flexible and thus easier to handle. The moulded grommet captivates with its **slim design** and simplifies the plugging process in cramped conditions. The short connector in combination with the thin outer jacket enables a very high packing density.

Cross section: 4 x 2 x AWG30/7 Cable diameter: 3.6 mm

Category:	6A (TIA)
Bandwidth:	500MHz
Allocation:	acc. TIA/EIA 568B

Conductor Material:.....Copper Connector type:RJ45 short version, IEC 60603-7-41

Contacts:.....3 µ" gold plated

Locking lever:.....Yes Cable type:.....U/UTP Low smoke:.....Yes Jacket material:TPE/LSZH

Stock Lengths: 0,15 - 0,25 - 0,5 - 1,0 - 2,0 - 3,0 - 5,0 - 7,5 - 10 m



ArtNo.	Colour outer sheath
K8108SW.x	black
K8108WS.x	white









RJ45 Patch cable U/UTP, Cat.6, PVC, CCA

The unshielded Cat.6 RJ45 patch cable with ensures excellent performance for 5 Gigabit Ethernet applications. The moulded grommet captivates with its **slim design** and thus simplifies the insertion process in cramped conditions.

Cross section 4 x 2 x AWG24/7 Moulded grommet, slim design

Length imprint on the boot

Category:.....6 Transmission:5Gbit Bandwidth:.....250MHz Allocation:acc. TIA/EIA 568B Conductor Material:.....CCA Connector type:RJ45 Standard, IEC 60603-7-4 Contacts:.....3 µ" gold plated

Locking lever:.....No Cable type:.....U/UTP Jacket material:PVC

Stock Lengths: 0,25 - 0,5 - 1,0 - 1,5 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 - 30



ArtNo.	Colour outer sheath
K8100GR.x	grey
K8100GE.x	yellow
K8100RT.x	red
K8100BL.x	blue
K8100GN.x	green
K8100SW.x	black
K81000R.x	orange
K8100WS.x	white
K8100MA.x	magenta



ArtNo.	Colour outer sheath
K8104GR.x	grey
K8104GE.x	yellow
K8104RT.x	red
K8104BL.x	blue
K8104GN.x	green
K8104SW.x	black
K8104WS.x	white







RJ45 Patch cable U/UTP, Cat.6, LSZH, CCA

The unshielded Cat.6 RJ45 patch cable with ensures excellent performance for 5 Gigabit Ethernet applications. The moulded grommet captivates with its **slim design** and thus simplifies the insertion process in cramped conditions.

Cross section 4 x 2 x AWG24/7 Moulded arommet, slim design

	9 ,	
Length	imprint on	the boot

Category:6
Transmission:5Gbit
Bandwidth:250MHz
Allocation:acc. TIA/EIA 568B
Conductor Material:CCA
Connector type:RJ45 Standard, IEC 60603-7-4
Contacts:3 µ" gold plated
Locking lever:yes
Cable type:U/UTP
Flame-retardant:yes
Stock Lengths: 0,25 - 0,5 - 1,0 - 1,5 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 m



ArtNo.	Colour outer sheath
K8456.x	grey
K8095.x	yellow
K8096.x	red
K8094.x	blue
K8093.x	green
K8098.x	black
K8099.x	orange
K8092.x	white
K8091.x	magenta









RJ45 Patch cable U/UTP, Cat.5e, PVC, CCA

The unshielded Cat.5e RJ45 patch cable with ensures excellent performance for 2.5 Gigabit Ethernet applications. The moulded grommet captivates with its slim design and thus simplifies the insertion process in cramped conditions.

Cross section 4 x 2 x AWG24/7 Moulded grommet, slim design

Length imprint on the boot

Category:	
Transmission:	
Bandwidth:	100MHz
Allocation:	acc.TIA/EIA 568B
Conductor Material:	CCA
Connector type:	RJ45 Standard, IEC 60603-7-2
Contacts:	3 μ" gold plated
Locking lever:	No
Cable type:	U/UTP
Jacket material:	PVC
Stock Lengths: 0,5 - 1	,0 - 1,5 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 - 30 m



ArtNo.	Colour outer sheath
K8110GR.x	grey
K8110GE.x	yellow
K8110RT.x	red
K8110BL.x	blue
K8110GN.x	green
K8110WS.x	white









RJ45 Patch cable Cat.5e U/UTP LSZH

Cable description:

U/UTP Cat.5e AWG24/7 stranded 4 pairs cable Jacket: LSZH, low smoke & Halogenfree OD: 5,4mm

RJ45 Connector:

2 x Cat.5e RJ45 plugs 1:1 IEC60603-7 Moulded strain relief with bend and latch protection 3um gold plated contacts

Application:

ISO IEC 11801, EIA/TIA 568

Contacts:3 μ" gc	old plated
Locking lever:Yes	
Cable type:U/UTP	



Stock Lengths: 0,5 - 1,0 - 1,5 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 - 25 - 30 - 50 m

Exceptional Features	VOIP use favored	Superflex, UV-resistant, outdoor, temperature stable, Made in Europe, EMC safe, TM31	EtherCat, temperature stable	100% test, single test protocol	Longlink up to 90m	Superflex, UV-resistant, temperature stable	Extremely flexible, dragline capable, oil-resistant, Made in Europe, EMC safe, TM21	Superflex, oil-and UV- resistant, , Made in Europe, EMC safe, TM21	Superflex, oil-and UV- resistant, , Made in Europe, EMC safe, TM21 + TM21 IP67	Extremely flexible, dragline capable, oil-resistant, Made in Europe, EMC safe, TM21	Extremely flexible, dragline capable, oil-resistant, Made in Europe, EMC safe, TM21
UL Ap- probiert	yes	00	ou l	yes	yes	no 1	00	00	01	yes	yes
Tempera- ture Range	-10°C- +75°C	-40°C - +70°C	-40°C- +80°C	-10°C- +75°C	-10°C- +75°C	-40°C - +80°C	-40 °C - +85°C	-35°C- +75°C	-35°C - +75°C	-40 °C - +80°C	-40 °C - +80°C
IP Pro- tection	IP20	IP20	IP20	IP20	IP20	IP20	IP20	IP20	IP20 + IP67	IP20	IP20
Plug	RJ45 ultra short	TM31 HIROSE	RJ45 standard	RJ45 standard	RJ45 special	RJ45 special	TM21 HIROSE	TM21 HIROSE	TM21 HIROSE	TM21 HIROSE	TM21 HIROSE
Conductor	100% copper	100% copper	100% copper	100% copper	100% copper	100% copper	100% copper	100% copper	100% copper	100% copper	100% copper
Rawcable acc. to Cat.7	yes	yes	00	yes	yes	yes	00	yes	yes	0U	00
Conductive Shield	selected shield contact	RJ45 with 360° shield contact	RJ45 with 360° shield contact	selected shield contact	RJ45 with 360° shield contact	RJ45 with 360° shield contact	RJ45 with 360° shield contact	RJ45 with 360° shield contact	RJ45 with 360° shield contact	RJ45 with 360° shield contact	RJ45 with 360° shield contact
Flexibility	nsnal	superflex	superflex	nsnal	nsnal	superflex	extremely good / drag chain	superflex	superflex	extremely good / drag chain	extremely good / drag chain
10 Gigabit Ethernet		×		×	×	×		×	×		
5 Gigabit Ethernet	×	×		×	×	×		×	×		
2,5 Gigabit Ethernet	×	×	×	×	×	×	×	×	×	×	×
Gigabit Ethernet	×	×	×	×	×	×	×	×	×	×	×
Cable Diameter	6.2 mm	6.4 mm	6.2 mm	6.2 mm	6.8 mm	6.2 mm	6.9 mm	5.9 mm	5.9 mm	6.6 mm	6.6 mm
Jacket	FR-PVC black	PUR red	PUR RAL6018 green	FR-PVC gray	FR-PVC gray	TPE black	PUR RAL1021 yellow	PUR red	PUR red	PUR yellow	PUR green
Boot / Length Imprint	moulded / no	mounted / no	moulded / no	moulded / no	moulded / no	moulded / no	mounted / no	mounted / no	IP20 + IP67 mounted / no	mounted / no	mounted / no
Shielding/ AWG	S/FTP AWG26/7	S/FTP AWG26/7	SF/UTP AWG26/7	S/FTP AWG26/7	S/FTP AWG24/7	S/FTP AWG26/7	S/UTP AWG26/19	S/FTP AWG27/7	S/FTP AWG27/7	S/FTP AWG26/19	S/FTP AWG26/19
Category / Bandwidth	Cat.6 / 250MHz	Cat.6A / 500MHz	Cat.5e / 100MHz	Cat.6A / 500MHz	Cat.6A / 500MHz	Cat.6A / 500MHz	Cat.5e / 100MHz	Cat.6A / 500MHz	Cat.6A / 500MHz	Cat.5e / 100MHz	Cat.5e / 100MHz
ArtNo.:	K2460.x	КЗ130.х	K5530.x	K5535xx.x	K5537xx.x	K5538xx.x	K8032.x	K8048PUIx	K8670.x	K8035lx	K8030.x



ArtNo.	Colour outer sheath
K3130.x	black











RJ45 Patch cable S/FTP, Cat.6A, PUR, Cat.7 raw cable, TM31

The Cat.6A RJ45 patch cable **manufactured in Europe** guarantees very good characteristics for **10 Gigabit** Ethernet applications. The patch cable is composed of the Cat.7 raw cable **Patch Pro flex Cat 7** from Draka and **TM31** connectors from Hirose. Due to the **PUR** outer sheath, the patch cable is also **suitable for outdoor use** (except for direct burial).

Cross section 4 x 2 x AWG26/7 Mounted anti-kink grommet

Category:	6A (TIA)
Transmission:	10Gbit
Bandwidth:	500MHz
Allocation:	nach TIA/EIA 568B
Conductor material:	Copper
Connector type:	TM31, IEC 60603-7-5
Contacts:	gold plated
Locking lever:	yes
Cable type:	S/FTP
Raw cable:	Cat.7

Stock length: 0,3 - 0,5 - 1,0 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 30 - 50 m



ArtNo.	Colour outer sheath
K8048PUIx	red
K8670.x	red











RJ45 Patch cable S/FTP, Cat.6A, TM21, UC900, PUR

The Cat.6A RJ45 patch cable **manufactured in Europe** guarantees very good characteristics for **10 Gigabit** Ethernet applications. The patch cable is composed of the Cat.7 raw cable **UC900 SS27 Cat.7 PUR** from Draka and **TM21** connectors from Hirose. Due to the **highly abrasion-resistant PUR** outer sheath, the cable is **resistant to mineral oil and ASTM oil**.

Cross section 4 x 2 x AWG27/7 Mounted anti-kink grommet Temperature range -35°C ~ +75°C

Category:	10Gbit 500MHz acc. to TIA/EIA 568B Copper TM21, IEC 60603-7-51 gold plated yes S/FTP

Stock length: 1,0 - 2,0 - 3,0 - 5,0 m



ArtNo.	Colour outer sheath
K5538SW.x	black









RJ45 Patch cable S/FTP, Cat.6A, TPE

The shielded Cat.6A RJ45 patch cable provides excellent performance for **10 Gigabit** Ethernet applications. The **TPE** outer sheath makes the cable **highly flexible** and therefore easier to handle. In addition, the patch cable is suitable for temperature ranges from **-40°C to +80°C**. The cast grommet captivates with its **slim design** and thus simplifies the plugging process in confined spaces.

Very flexible TPE/LSZH jacket superflex Cross section 4 x 2 x AWG26/7

UV resistance

Cast anti-kink grommet, slim design Temperature range -40°C ~ +80°C

Category:	6A (TIA)
Transmission:	10Gbit
Bandwidth:	500MHz
Allocation:	acc. to TIA/EIA 568B
Conductor material:	Copper
Connector type:	RJ45 Standard, IEC 60603-7-51
Contacts:	
Locking lever:	yes
Cable type:	Ś/FTP
Flame retardant:	yes

Stock length: 1,0 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 m











RJ45 Patch cable S/FTP, Cat.6A, PVC, UL

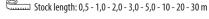
The **UL approved** and shielded Cat.6A RJ45 patch cable ensures very good characteristics for **10 Gigabit** Ethernet applications.

The cast grommet impresses with its **slim design** and simplifies the plugging process in confined spaces.

Cross section 4 x 2 x AWG26/7 Jacket material PVC Cast anti-kink grommet, slim design

Contacts:.....50 μ" gold plated

Locking lever:.....yes
Cable type:.....S/FTP
Jacket material:PVC





ArtNo.	Colour outer sheath
K5535GR.x	grey











RJ45 Patch cable S/FTP, Cat.6A, PVC, UL, Longlink

The **UL approved** and shielded Cat.6A RJ45 patch cable ensures very good characteristics for **10 Gigabit** Ethernet applications and is specially designed for **Longlink** applications up to **90m**. Due to the stranded construction, the cable offers several advantages compared to installation cables with field-attachable RJ45 connectors: The patch cable is **more flexible**, has a **smaller bending radius** and is already **pre-assembled**. The cast grommet impresses with its **slim design** and thus simplifies the plugging process in confined spaces.

Cat.6A (TIA) patch cable lengths: Up to 90 m Class EA (ISO) Patch cable lengths: Up to 80 m Cross section 4 x 2 x AWG24/7 Cast anti-kink grommet, slim design

Locking lever:.....yes
Cable type:......S/FTP

Jacket material:PVC

Stock Lengths: 20 - 30 - 40 - 50 - 60 - 70 - 80 - 90 m



ArtNo.	Colour outer sheath
K5537GR x	arev











RJ45 Patch cable S/FTP, Cat.6, PVC, short boot, UL

The **UL approved** and shielded Cat.6 RJ45 patch cable ensures very good characteristics for 5 Gigabit Ethernet and **VOIP** applications. The connector is **extremely short** with its **27.3 mm** including bend protection. The cast grommet impresses with its **slim design** and simplifies the plugging process in confined spaces.

Cross section 4 x 2 x AWG26/7

Plug extremely short (27.3 mm incl. bend protection)

Cast anti-kink grommet, slim design

Locking lever:....yes
Cable type:.....S/FTP
Jacket material:PVC

Stock Lengths: 1,0 - 2,0 - 3,0 - 6,0 - 10 m



ArtNo.	Colour outer sheath
K2460 v	hlack



ArtNo.	Colour outer sheath	Cable type
K8032.1	yellow	Leoni Kerpen
K8030.x	Green	Helu
K8035lx	Yellow	Helu







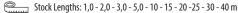


RJ45 Patch cable S/UTP, Cat.5e, PUR Superflex drag chain suitable

The Cat.5e RJ45 patch cable **manufactured in Europe** guarantees very good characteristics for 2.5 Gigabit Ethernet applications. The patch cable is composed of the raw cable and **TM21** connectors from Hirose. Due to the strand construction **AWG26/19** and the **very flexible PUR sheath** the cable is **suitable for applications in drag chains**.

Very flexible **PUR** sheath superflex (RAL1021) Alternating bending test (with load): according to VDE0472 part 603 **Suitable for drag chains, typical 5 million cycles Oil resistance** according to EN60811-2-1 **Ozone resistance** according to EN60811

Category) e
Transmission:	2.5Gbit
Bandwidth:	100MHz
Allocation:	acc. TIA/EIA 568B
Conductor Material:	Copper
Connector type:	TM21, IEC 60603-7-3
Contacts:	1.27 µ" gold plated
Locking lever:	yes
Cable type:	S/UTP
Flame-retardant:	acc. IEC60332-1





ArtNo.	Colour outer sheath
K5530.x	green











RJ45 Patch cable SF/UTP, Cat.5e, PUR, RAL6018

The **double shielded** Cat.5e RJ45 patch cable provides excellent performance for 2.5 Gigabit Ethernet and **EtherCat** applications. It is also suitable for temperature ranges from **-40°C to +80°C**. The cast grommet captivates with its **slim design** and simplifies the plugging process in confined spaces.

Very flexible **PUR** jacket superflex **(RAL6018)** Cross section 4 x 2 x AWG26/7 Cast anti-kink grommet, slim design Temperature range -40°C ~ +80°C

Category:	5E
Transmission:	2.5Gbit
Bandwidth:	100MHz
Allocation:	acc.TIA/EIA 568B
Conductor Material:	Copper
Connector type:	RJ45 Standard, IEC 60603-7-3
Contacts:	
Locking lever:	yes
Cable type:	SF / UTP
Jacket material:	PUR

Stock Lengths: 0,5 - 1,0 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 - 25 m

NOTHING FOUND YET?

YOU WILL FIND AN EVEN LARGER SELECTION OF PATCH CABLES IN OUR ONLINE SHOP!





Patchpanel	P. 150 - 151
Data Outlets	P. 151

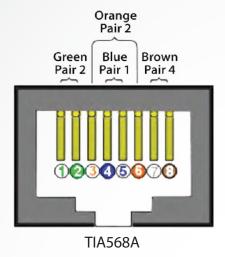
PATCHPANEL & DATA OUTLETS

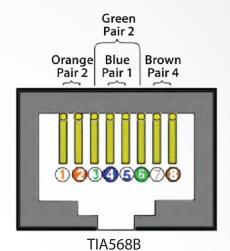
// YOU MIGHT ALSO BE INTERESTED IN:

Installation Cable	P. 154
Patch Cable	P. 130
19" Network Cabinets	P. 184
Tools & Measurement Equipment	P. 162



ASSIGNMENT FOR RJ 45 JACKS ACCORDING TO TIA/EIA 568





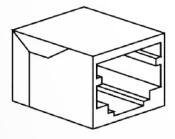
Assignment for LSA terminal blocks according to TIA/EIA 568



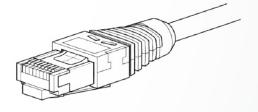
TIA568A (right colour bar)



TIA568B (left colour bar)



Jack (fixed connector)



Connector (free connector)

RJ 45 acc. to IEC 60603-7-x

IEC 60603-7-1	General information				
	Frequency	Category	Shielding		
IEC 60603-7-2	100 MHz	Cat.5	unscreened		
IEC 60603-7-3	100 MHz	Cat.5	screened		
IEC 60603-7-4	250 MHz	Cat.6	unscreened		
IEC 60603-7-41	500 MHz	Cat.6 _A	unscreened		
IEC60603-7-5	250 MHz	Cat.6	screened		
IEC60603-7-51	500 MHz	Cat.6 _A	screened		
IEC60603-7-7	600 MHz	Cat.7	screened		
IEC60603-7-71	1000 MHz	Cat.7 _A	screened		
IEC60603-7-81	2000 MHz	Cat.8 CLASS I	screened		



Patchpanel STP 24xRJ45, 19" 1U

Special features

Number of height units: 1 Cover: with clip closure **General specifications** Cross section: AWG24..AWG22

Connection type: LSA terminal

Colour code: according to TIA/EIA 568A/B

Contacts: gold plated Ground terminal

Dimensions:.....44.00 x 483.00 x 108.00 mm

Temperature range (Storage): -40 − 85 °C Temperature range (Operation): 0 - 70 °C

ArtNo.	Category	Number of buses/couplings	Colour	Transmission	Bandwidth
37666.1M	6A (TIA)	24	grey	10 Gbit	500 MHz
37666SW.1M	6A (TIA)	24	black	10 Gbit	500 MHz
37667.1M	6	24	grey	5 Gbit	250 MHz
37667SW.1M	6	24	black	5 Gbit	250 MHz
37668.1M	5E	24	grey	2.5 Gbit	100 MHz



Patchpanel STP 24xRJ45 Cat.6A/Class EA, 19" 1U

Special features

Cover: with screw closure With captive dust protection

General specifications

Cross section: AWG24..AWG22 Connection type: LSA terminal

Colour code: according to TIA/EIA 568A/B

Contacts: gold plated Ground terminal

Dimensions:.....44.5 x 482.6 x 109.0 mm Temperature range (Storage): -40 – 70 °C Temperature range (Operation): -10 - 60 °C

ArtNo.	Category	Number of buses/cou- plings	Colour	Transmission	Bandwidth
37656.1	6A (TIA)	24	black	10 Gbit	500 MHz









Special features

Cover: with quick release

General specifications Ports **37738.8: 8 x RJ45** Ports **37738.12: 12 x RJ45**

Mounting method: 10"/wall-/DIN rail mounting

Mini-Patchpanel STP Cat.6A, 10" 0,5U

Cross section: AWG24..AWG22 Connection type: LSA terminal

Colour code: according to TIA/EIA 568A/B

Contacts: gold plated Ground terminal

Suitable mounting for 10"-, wall-

and optional DIN rail via DIN rail holder set (H83030.1)

Dimensions:.....22.0 x 254.6 x 108.0 mm Temperature range (Storage): -40 – 70 °C Temperature range (Operation): -10 - 60 °C

ArtNo.	Category	Number of buses/couplings	Colour	Transmission	Bandwidth
37738.8	6A (TIA)	8	grey	10 Gbit	500 MHz
37738SW.8	6A (TIA)	8	black	10 Gbit	500 MHz
37738.12	6A (TIA)	12	grey	10 Gbit	500 MHz
37738SW.12	6A (TIA)	12	black	10 Gbit	500 MHz

Mini-Patchpanel STP, 10" 1U

Special features

Cover: with quick release

General specifications

Mounting method: 10" / Wall / DIN rail Cross section: AWG24..AWG22

Connection type: LSA terminal

Colour code: according to TIA/EIA 568A/B

Contacts: gold plated Ground terminal

Suitable mounting for 10"-, wall- and optional DIN rail via DIN rail holder set

(H83030.1)

Dimensions:.....44.0 x 254.6 x 108.0 mm Temperature range (Storage): -40 – 70 °C Temperature range (Operation): -10 - 60 °C

ArtNo.	Category	Number of buses/couplings	Colour	Transmission	Bandwidth
37737.8	6A (TIA)	8	grey	10 Gbit	500 MHz
37737SW.8	6A (TIA)	8	black	10 Gbit	500 MHz
37737.12	6A (TIA)	12	grey	10 Gbit	500 MHz
37737SW.12	6A (TIA)	12	black	10 Gbit	500 MHz
37736.8	6	8	grey	5 Gbit	250 MHz
37736SW.8	6	8	black	5 Gbit	250 MHz
37736.12	6	12	grey	5 Gbit	250 MHz
37736SW.12	6	12	black	5 Gbit	250 MHz
37735.8	5E	8	grey	2.5 Gbit	100 MHz
37735SW.8	5E	8	black	2.5 Gbit	100 MHz
37735.12	5E	12	grey	2.5 Gbit	100 MHz
37735SW.12	5E	12	black	2.5 Gbit	100 MHz

Accessories for all items on this page

ArtNo.	Description
H83030.1	DIN-Rail holder set
81022.100	Cable ties, L 100mm W 2.5mm 100 pcs., transparent



ECOLAN® Patchpanel UTP 24xRJ45, 19" 1U

General specifications

Unshielded Version Mounting method: 19" Cross section: AWG24..AWG22 Connection type: LSA terminal

Colour code: according to TIA/EIA 568A/B

Contacts: gold plated

Dimensions:.....44.0 x 482.6 x 109.0 mm Temperature range (Storage): -40 – 80 °C Temperature range (Operation): -40 – 80 °C

ArtNo.	Category	Number of buses/couplings	Colour	Transmission	Bandwidth
11324126	6	24	black	5 Gbit	250 MHz
11324123	5E	24	black	2.5 Gbit	100 MHz



Patchpanel UTP 24xRJ45 Cat.6, 19" 1U

General specifications

Unshielded Version Mounting method: 19" Cross section: AWG24..AWG22 Connection type: LSA terminal

Colour code: according to TIA/EIA 568A/B

Contacts: gold plated

Dimensions:.....44.2 x 482.6 x 112.0 mm Temperature range (Storage): -40 – 68 °C Temperature range (Operation): -10 - 60 °C

ArtNo.	Category	Number of buses/couplings	Colour	Transmission	Bandwidth
37583SW.1	6	24	black	5 Gbit	250 MHz



Patchpanel UTP 24xRJ45, 19" 1U, 180°

Compact design

General specifications

Unshielded Version Mounting method: 19" Cross section: AWG24..AWG22 Connection type: LSA terminal Colour code: according to TIA/EIA 568A/B Contacts: gold plated

Dimensions:.....43.5 x 482.6 x 28.5 mm Temperature range (Storage): -40 – 80 °C Temperature range (Operation): -40 - 80 °C

ArtNo.	Category	Number of buses/couplings	Colour	Transmission	Bandwidth
37585.1	6	24	black	5 Gbit	250 MHz







Data outlet

40° outlet, 8-pole IDC terminals Fully shielded diecast housing Labelling field with transparent cover For installation in ducts and underfloor systems Central plate according to DIN49075 Central plate 50 x 50 mm, including cover plate 80 x 80 mm Design capable, compatible with all common switch programmes

ArtNo.	Category	Flush mounted (plaster)	Surface mounting	Supply line for installation cable	Bandwidth	Trans- mission
ET-25130.1V1	6A (TIA)	True	False	horizontal	500 MHz	10 Gbit
ET-25133.1V1	6A (TIA)	True	False	vertical	500 MHz	10 Gbit
ET-25133AV5-R	6A (TIA)	True	True	vertical	500 MHz	10 Gbit
ET-25211.1V1	6	True	False	vertical	250 MHz	5 Gbit
ET-25211.2V1	6	True	False	horizontal	250 MHz	5 Gbit



Surface frame RAL9010

Surface frame 80x80x40mm Without cover Type of plastic: ABS RAL9010 For data outlets and keystones frame sets

Scope of delivery:

1x Surface frame, 2x Screws: 3mm x 10mm

ArtNo.	Coloui
ET-25084V3	white

Accessories f	for all items on this page
ArtNo.	Description
81022.100	Cable ties, L 100mm W 2.5mm 100 pcs., transparent



Installation cable P. 154 Overview certifications P. 155 Cable drums P. 156 Stranded cables (bulk stock) P. 157

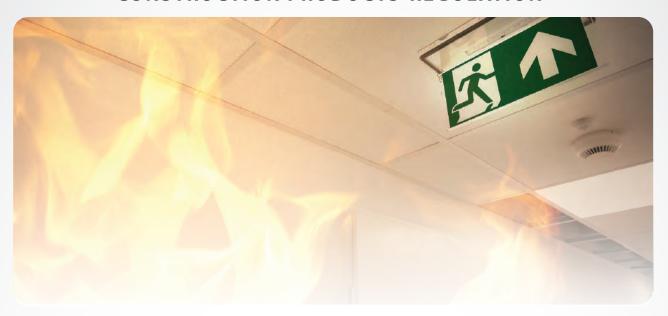
// YOU MIGHT ALSO BE INTERESTED IN:

Patchpanel	P. 150
Network Switches	P. 314
Media Converter	P. 318
Cable Management	P. 240
Product Refinements	P. 87
Keystones	P. 117

INSTALLATION & FLEXIBLE CABLES



CONSTRUCTION PRODUCTS-REGULATION



For our customers, we ensure that the cables offered meet the requirements of the construction products regulation. The implementation of the standard has been completed. The manufacturer of the respective installation cables is responsible for the classification. For the EFB own brands INFRALAN® and ECOLAN® the Euro brand classes can be seen in the product tables. In addition, the declarations of performance of the own brands are also available on the EFB website. It goes without saying that labeling and other delivery details are implemented in conformity with the EU regulation.

Summary Euro Classes

Reaction to fire		Additional classes		Security
classes Flame propagation, heat development	Smoke production/ density	Acidity development/ corrosivity	Flaming droplets/ particles	requirements in a building
A_{ca}				very high
B1 _{ca}				very high
B2 _{ca}	s1	a1	d1	very high
C _{ca}	s1	a1	d1	high
D_{ca}	s2	a1	d2	medium
E _{ca}				low
F _{ca}				non

Source: ZVEI – Low fire-hazard cables improve safety (12.10.2016)

Further information in accordance to CPR you will find on our homepage www.efb-elektronik.de/en

INSTALLATION & FLEXIBLE CABLES | INSTALLATION CABLE

Installation and stranded cables are the key element of a copper-based transmission link. EFB-Elektronik has a wide range of installation cables for indoor and outdoor use as well as for various applications up to 40 Gigabit Ethernet pursuant to Cat.8 CLASS I S/FTP (up to 2000 MHz). The delivery takes place in batch sizes from 100 to 1,000 meters, as well as lengths according to customer request. The jacket material is available in PVC, LSZH and in industrial PUR versions. In addition to installation cables, EFB-Elektronik also offers patch cables for own assembling as bulk goods.





Cat.8.2 Installation cable

ArtNo.	Category	Туре	Jacket/ Colour	AWG/Conductor	Ø in mm	Euro class	Conductor diameter	Cable construction	Max. Frequency	Length	Brand
99827.x	8.2	simplex	FRNC-C/ yellow	22/1/ Cu, tinned	8.5	Dca	0.64 mm	S/FTP	2000 MHz	100 - 500 - 1000m	Draka Comteq

Cat.7A Installation cable

ArtNo.	Category	Type	Jacket/ Colour	AWG/Conductor	Ø in mm	Euro class	Conductor diameter	Cable construction	Max. Frequency	Length	Brand
999830.x-CPR	7A	simplex	FRNC/ yellow	22/1/ Cu, tinned	8,6	Cca	0.64 mm	S/FTP	1500 MHz	100 - 500 - 1000 m	INFRALAN
999830DX.x-CPR	7A	duplex	FRNC/ yelow	22/1/ Cu, tinned	8,6x17,5	Cca	0.64 mm	S/FTP	1500 MHz	500 m	INFRALAN
MK7100.x-CPR	7A	simplex	FRNC/ orange	22/1/ Cu, tinned	8,4	B2ca	0.62 mm	S/FTP	1200 MHz	100 - 1000 m	INFRALAN
MK7100DX.x-CPR	7A	duplex	FRNC/ orange	22/1/ Cu, tinned	8,4 x16,8	B2ca	0.62 mm	S/FTP	1200 MHz	500 m	INFRALAN
99985.x-CPR	7A	simplex	FRNC/rape yellow	23/1/ Cu, tinned	7,7	Cca	0.56 mm	S/FTP	1250 MHz	100 - 500 1000 m	INFRALAN
99985DX.x-CPR	7A	duplex	FRNC/rapeyellow	23/1/ Cu, tinned	7,7 x 16,1	Cca	0.56 mm	S/FTP	1250 MHz	500 m	INFRALAN

Cat.7 Installation cable

ArtNo.	Category	Туре	Jacket/ Colour	AWG/Con- ductor	Ø in mm	Euro class	Conductor diameter	Cable construction	Max. Fre- quency	Length	Brand
99981.x-CPR	7	simplex	FRNC/ orange	23/1/ Cu, blank	7.5	Cca	0.56 mm	S/FTP	1000 MHz	100 - 200 - 500 - 1000 m	INFRALAN
99981DX.x-CPR	7	duplex	FRNC/ orange	23/1/ Cu, blank	7.5 x 15.8	Cca	0.56 mm	S/FTP	1000 MHz	100 - 500 m	INFRALAN
99980.x-CPR	7	simplex	FRNC/ orange	23/1/ Cu, blank	7.3	Eca	0.56 mm	S/FTP	1000 MHz	25-50-100-500-1000 m	INFRALAN
99980DX.x-CPR	7	duplex	FRNC/ orange	23/1/ Cu, blank	7.2 x 15.0	Eca	0.56 mm	S/FTP	1000 MHz	25 - 50 - 100 - 500 m	INFRALAN
99733.x-CPR ③	7	simplex	PE + LSZH/ black	23/1/ Cu, blank	8.4		0.56 mm	S/FTP	1200 MHz	25-50-100-250-500-1000m	E F B ELEKTRONIK
99731.x ①	7	simplex	PE/ black	23/1/ Cu, blank	8.4		0.56 mm	S/FTP	900 MHz	100 - 500 m	Draka Comteq
99739.x ②	7	simplex	PE + LSZH/ black	23/1/ Cu, blank	13.5		0.56 mm	S/FTP	900 MHz	1000 m	Draka Comteq
99732.x ③	7	simplex	PE + LSZH/ black	23/1/ Cu, blank	9.5	Eca	0.56 mm	S/FTP	900 MHz	100 - 500 m	Draka Comteq
MK7101.x-CPR	7	simplex	FRNC/ orange	23/1/ Cu, blank	7.5	Dca	0.56 mm	S/FTP	1000 MHz	100 - 500 - 1000 m	EF B ELEKTRONIK

Cat.6A Installation cable

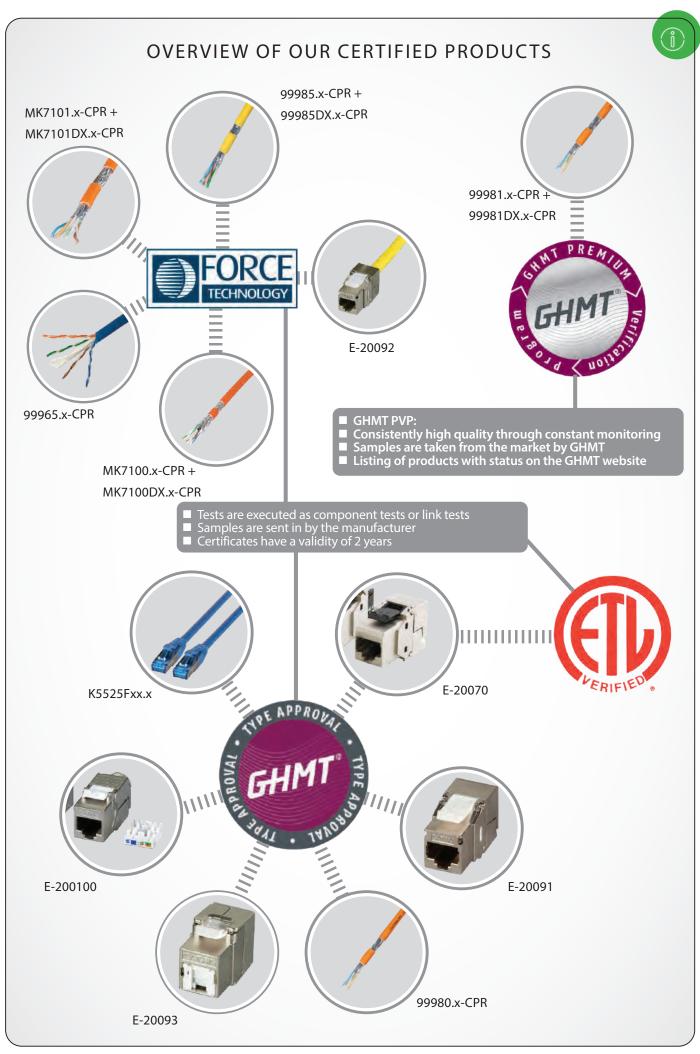
ArtNo.	Category	Туре	Jacket/Colour	AWG/Con- ductor	Ø in mm	Euro class	Conductor diameter	Cable construction	Max. Frequency	Length	Brand
99978.x-CPR	6A (IEC)	simplex	LSZH/ white	23/1/ Cu, blank	7.2	Dca	0.55 mm	U/FTP	500 MHz	305 - 500 m	INFRALAN
99978DX.500-CPR	6A (IEC)	duplex	LSZH/ white	23/1/ Cu, blank	7.2 x 15.0	Dca	0.55 mm	U/FTP	500 MHz	500 m	INFRALAN
99965.x-CPR	6A (IEC)	simplex	LSZH/ blue	23/1/ Cu, blank	6.6	B2ca	0.57 mm	U/UTP	500 MHz	305 - 500 m	INFRALAN

Cat.6 Installation cable

ArtNo.	Category	Туре	Jacket/Colour	AWG/Conductor	Ø in mm	Euro class	Conductor diameter	Cable	Max. Fre-	Length	Brand
								construction	quency		
99962.x-CPR	6	simplex	LSZH/ white	23/ Cu, blank	6.0	Dca	0.54 mm	U/UTP	500 MHz	305 - 500 m	E F B
99961.305-CPR	6	simplex	LSZH/ white	25/1/ Cu, blank	4.6	Dca	0.44 mm	U/UTP	500 MHz	305 m	EFB ELEKTRONIK

Cat.5e Installation cable

ArtNo.	Category	Туре	Jacket/Colour	AWG/Con-	Ø in mm	Euro class	Conductor diameter	Cable	Max. Fre-	Length	Brand
				ductor				construction	quency		
11930515-CPR	5e	simplex	PVC/ grey	24/1/ Cu, blank	5.0	Eca	0.49 mm	U/UTP	100 MHz	305 m	ECOLAN









Cat.8.1/Class | Installation link

Robust special rubber cable drum, complete with Cat.8.2 S/FTP installation cable, integrated outlet Cat.8.1 1 x RJ45 with dust cap and 1 x Cat.8.1 RJ45. Very well suited to mobile use, for exhibitions, presentations, outside broadcasting vans, measuring sections etc.

ArtNo.	Description	Colour outer sheath
K9210.25	Cat.8.1/Class I Installation link 25m, on cable drum	yellow
K9210.50	Cat.8.1/Class I Installation link 50m, on cable drum	yellow





Cat.8.1/Class I Extension

Robust special rubber cable drum, complete with Cat.8.2 S/FTP installation cable, integrated outlet Cat.8.1 1 x RJ45 with dust cap and 1 x Cat.8.1 RJ45 plug. Very well suited to mobile use, for exhibitions, presentations, outside broadcasting vans, measuring sections etc.

ArtNo.	Description	Colour outer sheath
K9211.25	Cat.8.1/Class I Extension 25m, on cable drum	yellow
K9211.50	Cat.8.1/Class I Extension 50m, on cable drum	yellow







Cat.6A/ CLASS EA Installation Link S/FTP PIMF Cat.7 Installation Cable + Cat.6A RJ45 Keystones

Robust special rubber cable drum, complete with Cat.7 S/FTP installation cable, integrated outlet Cat.6A 1 x RJ45 with dust cap and 1 x Cat.6A RJ45. Very well suited to mobile use, for exhibitions, presentations, outside broadcasting vans, measuring sections etc. A standardised installation section in accordance with structured cabling Cat.6A / Class EA.

ArtNo. Description		Colour outer sheath
K9201.50 Cat.6A/classEA Installation link, S/FTP, 50m on drum		orange
K9201.90 Cat.6A/classEA Installation link, S/FTP, 90m on drum		orange



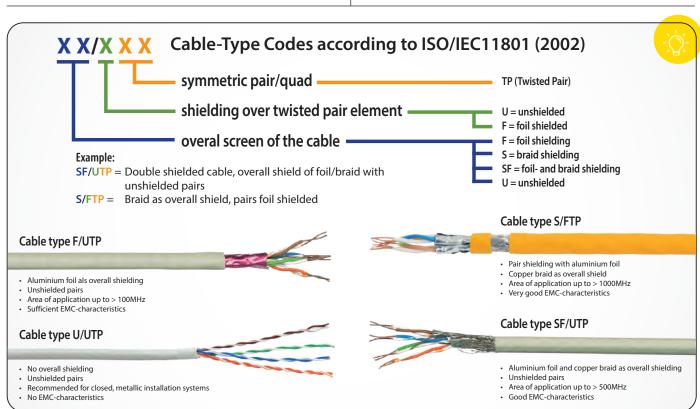




Cat.5e/ CLASS D Installation Link F/UTP Cat.5e Installation Cable + Cat.5e RJ45 Keystones

Robust special rubber cable drum, complete with F/UTP Cat.5e installation cable, integrated outlet 1 x RJ45 with dust cap and 1 x RJ45 modular jack. Very well suited to mobile use, for exhibitions, presentations, outside broadcasting vans, measuring sections etc. A standardised installation section in accordance with structured cabling Cat.5e.

ArtNo.	Description	Colour outer sheath
K9200.50	Cat.5e Installation link F/UTP, 50m on drum	grey
K9200.90	Cat.5e Installation link F/UTP, 90m on drum	grev







CHARACTERISTICS OF PATCH CABLE METER WARE

Type identification	ArtNo.	Category	Jacket	AWG/Conductor	Ø in mm	Euro class	Cable construction	Max. Frequency
Kerpen MegaLine F10-120 S/F flex	99726.x	7A	FRNC-B	26/7/ Cu, tinned	6.0	-	S/FTP	1200 MHz
Draka UC900 SS27 Cat.7	9970x.x	7	FRNC-B	27/7/ Cu, tinned	5.9	Eca	S/FTP	1000 MHz
Draka UC900 SS27 Cat.7 PUR ①	99710.x	7	PUR (Polyurethan)	27/7/ Cu, tinned	5.9	-	S/FTP	1000 MHz
EFB MK7104	MK7104.xx	7	FRNC-B	26/7/ Cu, tinned	6.5	-	S/FTP	600 MHz
Dätwyler CU 5502 flex	9870x.x	5e	PVC	26/7/ Cu, tinned	5.1	-	S/UTP	300 MHz
Kerpen MegaLine D1-20 S/U PUR superflex ②	99526MC.x	5e	PUR (Polyurethan)	26/19/ Cu, tinned	6.8	-	S/UTP	200 MHz
Kerpen MegaLine D1-20 SF/U flex	99525.x	5e	PVC	26/7/ Cu, tinned	5.3	-	SF/UTP	200 MHz
Kerpen MegaLine D1-20 SF/U flex	99526.x	5e	FRNC	26/7/ Cu, tinned	5.3	-	SF/UTP	200 MHz
EFB 99956	99956.x	5e	PVC	26/7/ Cu, tinned	6.2	-	SF/UTP	350 MHz
Draka UC300 HS26	9925x.x	5e	FRNC-B	26/7/ Cu, tinned	5.7	-	SF/UTP	300 MHz
Draka UC300 S26	9915x.x	5e	FRNC-B	26/7/ Cu, tinned	5.0	-	F/UTP	300 MHz

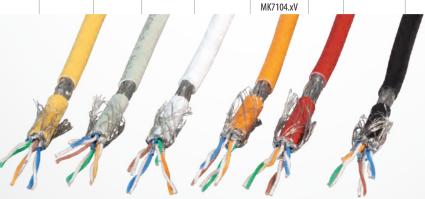
 $[\]ensuremath{\textcircled{1}}$ Resistant to mineral oil, ASTM oil and UV radiation, highly abrasion resistant.

② suitable for drag chains

Stock length: 100 - 1000 m

COLOUR SELECTION OF THE PATCH CABLES METER WARE

	O DATWYLER		← Draka	Comteq		EF			♦ KE	ERPEN	
	Dätwyler CU 5502 flex	Draka UC300 HS26	Draka UC300 S26	Draka UC900 SS27	Draka UC900 SS27 Cat.7 PUR	EFB MK7104	EFB 99956	Kerpen MegaLine D1-20 S/U PUR superflex	Kerpen MegaLine F10-120 S/F flex	Kerpen MegaLine D1-20 SF/U flex PVC	Kerpen MegaLine D1-20 SF/U flex LSZH
red	98703.x	99256.x	99156.x	99703.x	99710.x	MK7104.xR					
blue	98704.x	99254.x	99154.x	99704.x		MK7104.xBL					
yellow	98702.x	99255.x	99155.x	99702.x		MK7104.xY		99526MC.x			
grey	98701.x	99258.x	99158.x	99701.x		MK7104.xG	99956.x		99726.x	99525.x	99526.x
green	98706.x	99253.x	99153.x	99706.x		MK7104.xGR					
white				99708.x		MK7104.xW					
brown						MK7104.xBR					
orange				99707.x		MK7104.x0					
magenta				99709.x		MK7104.xP					
black	98705.x		99157.x	99705.x		MK7104.xB					
violet						MK7104.xV					



Stock length: 100 - 1000 m

RJ45 CONNECTORS & ACCESSORIES //



Field Installable Plug P. 159 Connector sets P. 160 Modular connectors P. 161

// YOU MIGHT ALSO BE INTERESTED IN:

Installation Cable	P. 154
Flex / Patch Cable	P. 157
Keystones	P. 117
Tools	P. 162
Data Outlets	P. 151









Field installable connector RJ45 Cat.8 Class 1

The RJ45 plug provides a combination of excellent transmission quality and fast and easy tool-free assembly. Fully shielded zinc diecast housing ensures the best EMC features especially in industrial environments. IDC terminals and very low contact resistances assure high quality contacting for installation cables up to 9mm diameter and wire gauge from AWG22 - AWG27.

Shielded zinc diecast body with separate dust cap and anti-kink sleeve Compact cable manager for AWG 22/1 .. AWG 26/1 or AWG22/7 .. AWG27/7 Pair management according to TIA 568A /B colour codes and industrial Profinet 1-2-3-6

Re-termination capability up to 5 times with the same width, for AWG27/7 up to 2 times $\,$

Suitable for cable dia from 6.0mm .. 9.0mm

Strain relief with cable gland

Tension relief with cable gland and sliding lever

ArtNo.	Description
88035.2	Field installable connector, RJ45 Cat.8 Class 1 AWG22 - 27, zinc alloy



accessory

	,	
ArtNo. Descfription		Descfription
E-2	20092	RJ45 Keystone STP, Cat.8 Class 1, 2000MHz
998	827.1	UC FUTURE C22 Cat.8.2 S/FTP 4P 2GHz, LSHF-FR
K9:	210.25	Cat.8.1/Class I Installation link 25m, on cable drum

Colour	Category	Screened
silver	Cat.8 Class 1	True







RJ45 Premium plug STP, Cat.6A/ClassEA, Field-Plug

The Cat. 6A Premium RJ45 is a highlight in the chain of further development of RJ45 connectors for field assembly. An extraordinarily robust full metal housing made of zinc die-casting paired with the unique variable cable feed opens up a wide range of application possibilities. Installation can be done in **9 different positions**: 8 different angled positions and a 180° straight cable entry. The conical metal cable gland allows cable diameters from 6.0mm to 9.0mm. The connector meets the requirements of transmission class Cat. 6A/Class EA and supports the Ethernet protocol up to **10 Gigabit** per second.







ArtNo.	Description	Colour	Category	Screened
88035P8.1	RJ45 Premium plug STP, Cat.6A/ClassEA, Field-plug, full metal	silver	6A (IEC)	True

RJ45 Connector, Field-Plug

The ECOLAN® RJ45 plug provides a combination of excellent transmission quality and fast and easy tool-free assembly. IDC terminals and very low contact resistances assure high quality contacting for installation cables up to 9mm diameter and wire gauge from AWG22 - AWG27.

Unshielded polycarbonate body with separate dust cap and anti-kink sleeve

Cat.6/Class E performance according to ISO/IEC11801 and IEC60603-7-4 Compact cable manager for AWG 22/1 .. AWG 26/1 or AWG22/7 .. AWG27/7 Pair management according to TIA 568A /B colour codes and industrial

Re-termination capability up to 5 times with the same width, for AWG27/7 up to 2 times

Suitable for cable dia from 6.0 mm .. 9.0 mm

Strain relief with cable tie





88035.1



accessory

ArtNo.	Description	
K5534FRT.1	RJ45 Patch cable S/FTP, Cat.6A, TPE superflex, 1m, red	
99980.1-CPR	INFRALAN® Cat.7 1000 AWG23, S/FTP 4P CPR Eca orange	

ArtNo.	Description	Colour	Category	Screened
88035AV.1	RJ45 Connector STP, Cat.6A, Field-Plug	aqua	6A (TIA)	True
88035.1	RJ45 Connector STP, Cat.6, Field-Plug	black	6	True
88035UTP.1	ECOLAN® RJ45 Connector UTP, Cat.6, Field-Plug	black	6	False

Shielded version Conductor insulation approx. 0.9 - 1.0 mm The set consists of RJ plug, anti-kink sleeve and guide plate. Suitable crimping tool DCW1002 + DCW1002.1 or 39934.2

RJ45 Hirose Connector set TM31 Cat.6A



-1 PU 1 piece, -10 PU 10 pieces, -100 PU 100 piecesk

ArtNo.	Colour	AWG-Range for litz wire conductor	Category	Cable diameter max.
H7642.1-x	beige	24 – 27	6A (TIA)	6.6 mm
H7642.4-x	black	24 – 27	6A (TIA)	6.6 mm
H7642.5-x	yellow	24 – 27	6A (TIA)	6.6 mm
H7642.6-x	red	24 – 27	6A (TIA)	6.6 mm
H7642.7-x	blue	24 – 27	6A (TIA)	6.6 mm
H7642.8-x	green	24 – 27	6A (TIA)	6.6 mm
H7642.10-x	orange	24 – 27	6A (TIA)	6.6 mm
H7642.12-x	grey	24 – 27	6A (TIA)	6.6 mm

















RJ45 Hirose Connector set TM21 Cat.6



ArtNo.	Colour	AWG-Range for litz wire conductor	Category	Cable diameter max.
H7641.1-x	beige	24 – 27	6	6.6 mm
H7641.4-x	black	24 – 27	6	6.6 mm
H7641.5-x	yellow	24 – 27	6	6.6 mm
H7641.6-x	red	24 – 27	6	6.6 mm
H7641.7-x	blue	24 – 27	6	6.6 mm
H7641.8-x	green	24 – 27	6	6.6 mm
H7641.10-x	orange	24 – 27	6	6.6 mm
H7641.12-x	grey	24 – 27	6	6.6 mm

















RJ45 Hirose Connector set TM11 Cat.5e



ArtNo.	Colour	AWG-Range for litz wire conductor	Category	Cable diameter max.
H7540.1-x	beige	24 – 27	5E	5.8 mm
H7540.4-x	black	24 – 27	5E	5.8 mm
H7540.5-x	yellow	24 – 27	5E	5.8 mm
H7540.6-x	red	24 – 27	5E	5.8 mm
H7540.7-x	blue	24 – 27	5E	5.8 mm
H7540.8-x	green	24 – 27	5E	5.8 mm
H7540.12-x	grey	24 – 27	5E	5.8 mm



















Cat.6 RJ45 Plug STP

Up to 250 MHz (Cat.6)
For stranded wires (AWG 24/7, AWG 26/7, AWG 27/7)
Shielded version
Core insulation about 0.9 - 1.0 mm
Cable diameter max. 6.2 mm
Suitable crimping tool DCW1003 + DCW1003.1

Anti-kink sleeve not included

ArtNo.	Description	Colour
37640.1-100	RJ45 Connector STP, Cat.6, 100pcs	silver

accessory

ArtNo.	Description
DCW1003	Crimping tool (frame) for die inserts DCW1003.x
DCW1003.1	Die insert for DCW1003, suit. 37640.1, 37541.3, 37519.1



RJ45 Strain Relief Boot

Anti-Kink sleeve for 37541.3, 37514.1, 37519.1, 37539.1, 37640.1, 34600.1 Cable entry max. 6.6 mm

ArtNo.	Description	Colour
37546.1-100	Anti-Kink Sleeve RJ45 Beige, with Latch Protection, 100 Pcs.	beige
37546.4-100	Anti-Kink Sleeve RJ45 Black, with Latch Protection, 100 Pcs.	black
37546.5-100	Anti-Kink Sleeve RJ45 Yellow, with Latch Protection, 100 Pcs.	yellow
37546.6-100	Anti-Kink sleeve RJ45 Red, with Latch Protection, 100 Pcs.	red
37546.7-100	Anti-Kink sleeve RJ45 Blue, with Latch Protection, 100 Pcs.	blue
37546.8-100	Anti-Kink sleeve RJ45 Green, with Latch Protection, 100 Pcs.	green





Cat.5e RJ45 Plug STP

Up to 100 MHz (Cat.5e)
For stranded wires (AWG 24/7, AWG 26/7, AWG 27/7)
Shielded version
Core insulation about 0.9 - 1.0 mm
Cable diameter max. 6.3 mm
Suitable crimping tool DCW1003 + DCW1003.1

Anti-kink sleeve not included

ArtNo.	Description	Colour
37541.3-100	RJ45 Connector STP, Cat.5e, 100pcs	silver

accessory

ArtNo.	Description
37546.8-100	Anti-Kink sleeve RJ45 Green, with Latch Protection, 100 Pcs.
37546.6-100	Anti-Kink sleeve RJ45 Red, with Latch Protection, 100 Pcs.
37546.4-100	Anti-Kink Sleeve RJ45 Black, with Latch Protection, 100 Pcs.
37546.1-100	Anti-Kink Sleeve RJ45 Beige, with Latch Protection, 100 Pcs.
37546.7-100	Anti-Kink sleeve RJ45 Blue, with Latch Protection, 100 Pcs.
37546.5-100	Anti-Kink Sleeve RJ45 Yellow, with Latch Protection, 100 Pcs.
DCW1003	Crimping tool (frame) for die inserts DCW1003.x
DCW1003.1	Die insert for DCW1003, suit. 37640.1, 37541.3, 37519.1



Dust protection cap for RJ45 plug

Dust cap for RJ45 Connectors

ArtNo.	Description	
88048.1-10	Dust protection cap for RJ45 Connector, black	



Tools & Meters P. 163 Cable Tester P. 164 Network Tester P. 165

// YOU MIGHT ALSO BE INTERESTED IN:

Patchpanel	P. 150
Patch Cable	P. 130
Keystones	P. 117
Installation Cable	P. 154



DCW Crimp Tool without inserts

High precision crimping tool Delivery without inserts Inserts for DCW1002: DCW1002.x Inserts for DCW1003: DCW1003.x High-quality aluminium case for transport and protection available as accessories

ArtNo.	Description
DCW1002	Crimping tool(frame) for die inserts DCW1002.x
accessorv	

ArtNo.	Description
DCW1002.2	Die insert Stewart SS39200-12 for DCW1002
DCW1002.1	Die insert Hirose TM11/21/31 for DCW1002
39841.1	PRIMO Hirose Crimping Tools Case, Alu



Crimping Tool for RJ45 Hirose connector TM series

For crimping 8-pole Hirose plugs incl. strain relief in one operation

Particularly suitable for local assembly Without Accessories

ArtNo.	Description
39934.2	Crimping tool for RJ45 Hirose connector TM series

accessory

ArtNo.	Description
H7642.4-50	RJ45-Hirose Connector TM31 black
H7641.4-50	RJ45-Hirose Connector TM21 black
H7540.4-50	RJ45-Hirose TM11 black 50 pcs.



Crimping Tool E-MUC410 for RJ Plug

For 4-, 6-, 6-DEC-, 8-, AMP, and shielded RJ45 Far East and for cutting and stripping Ideal for local assembly Following plugs can be crimped: 37517.1, 37516.1, 37518.1, 37512.1, 37511.1, 37513.1, 37514.1, 37542.1

ArtNo.	Description
E-MUC410	Crimping tool for Modular Connector 4-8 pole



Crimping Tool E-SK310 for RJ Connector

For crimping 4-pole, 6-pole, 8-pole, cutting and stripping

Ideal for local assembly Following plugs can be crimped: 37516.1, 37518.1, 37519.1, 37511.1, 37513.1, 37514.1, 37541.3, 37640.1

ArtNo.	Description
E-SK310	Crimping tool for modular connector



LSA/IDC Insertion Tool

For applying the cable cores to LSA connection technology

For cable diameter 0.4 .. 0.8 mm Simultaneous wire cutting

ArtNo.	Description
39951.1	Krone LSA Insertion Tool with Sensor
39933.1	LSA Insertion Tool



Stripping Tool

Tool for stripping the jacket and additionally the metal foil shield of data cables (S/FTP, U/FTP)

Material plastic, colour blue

ArtNo.	Description
DCW1008	Stripping Tool for jacket and foil shield



Cable Cutter

For installation and patch cables For cutting and stripping the individual wires

ArtNo.	Description
39912.1	Cable Cutter



LAN Test Kit

Network and modular test

Line tester for structured cabling and patch cables Advantage: Not pairs only, but any individual core can be tested for assignment

For testing 10BaseT, 10Base2 Thin Ethernet (coax), RJ45 / RJ11modular cable TIA-568A, 568B

ArtNo.	Description
39936 1	Lan test kit network and modular cable



Cable Tester

For structured cabling and patch cables Save expensive troubleshooting with a LAN analyzer

Standardisation TIA/EIA 568A, TIA/EIA 568B, 365A and Token Ring

ArtNo.	Description
39938.1	Cable tester, remote adapter case



LANTester Network

LAN test kit, master and remote unit network and modular test Cable tester for twisted pair cabling and patch cables RJ11/12/45 local or remote connections can be tested Separate LED for Pin 1 - 8 and ground Each individual core is automatically scanned Scan speed low/high, adjustable Incl. black plastic case Battery 9 V, E-block not included

ArtNo.	Description
39939.1	Lantester network & modular cable, RJ11/12/45



LANSmart Network Tester

Handy high-tech measuring for network professionals Technology: Time-domain reflectometer based Cable length measurement possible without remote unit RJ45 patch cable or raw cable measurable Detects pinning, pair assignment, short-cuts

LANSmart makes the link LED of the hub/switch/MC/NIC light up Master and remote unit RJ45, plugable

LCD display: 122x32 dot matrix 56x29mm Measuring accuracy: Below 10m +-2m, above 10m +-5% Length measuring range: min.: 1m - max.: 500m

Tone generator: 1kHz

Port finder function:

Dimensions: 82x138x32mm, 220g

Power supply: 4.5VDC (3 x AAA micro) (not included)

CE tested

ArtNo.	Description
39978.1	LANSmart network tester with LCD display. TDR technology



Network Tool Set

This Tool Kit is ideal for field service. You can use the Tool Kit for fault diagnostics, testing and for new installations.

Incl. in delivery: LAN-Tester RJ11/RJ12/RJ45 (battery 9 V E-Block not included) Crimping Tool for RJ11/RJ12/RJ45 Cut and Stripping Tool **IDC Insert Tool**

Art.-No. Description 39919.1 Network Tool Kit with 4 units

OUR SERVICE IN THE FIELD OF COPPER CABLING



EFB-Elektronik offers various measurements for all kind of cable assemblies of the portfolio. At the Headquarter in Bielefeld, attenuation measurements are carried out on patch cables or pre-assembled links. The measured cables can be assigned via a serial number attached to the cable.

1. DLOKUPFER-Dämpfung	IL measurement for patch cable inclusive, label with serial number, lead time for 200pcs. approx. 3 working days plus regular picking time
2. DLOWICKEL2	Assembling of label on both sides of cable, lead time for 200pcs. approx. 3 working days plus regular picking time*

* lead time for other quantities on request







IP68 Components	P. 167
IP67 Components	P. 168 - 169

IP67/68 PLUG-IN SYSTEMS //

// YOU MIGHT ALSO BE INTERESTED IN:

HDMI cable	P. 288
USB	P. 272
Patch cable	P. 130
Fiber Jumper	P. 77





IP68 Receptacle for keystone modules and adapters

IP68 Socket Housing for all EFB-Elektronik keystone modules and adapters
With havenet lock to IFC61076 3, 106

With bayonet lock to IEC61076-3-106 M30 mounting with silicone seal Mounting diameter: 30mm

Suitable for use with Keystone modules, Snap-in and keystone mounting

adapters

Straight outlet 180° **Delivery unequipped**

Accessory:

IP68 Cap: IP68EBCAP

Utilization:......Modular-Jack
With dust cover:.....Yes
Material:.....Plastic
Type of locking:.....Bayonet lock
Suitable for degree of protection (IP): IP68



Art.-No. IP68EBKS

Accessory

ArtNo.	Description
IP68EBCAP	IP68 Dust cap for receptacles, Bayonet locking acc. to IEC61076-3-106







RJ45 Cat.6A IP68 adapter

IP68 cable connector for outdoor installation. Integrated Cat.6 RJ45 jack to facilitate connection. Designed for transmissions up to 250MHz according to ISO/IEC 11801 ClassE and Data transmission rate up to 5 Gbit/s.

- Easy installation
- Waterproof cable connector of protection class IP68
- Max. Voltage of 125V and max. current of 1.5A
- Cable gland in M16
- For cables with a max. diameter of 19.5mm
- L x D 121.5mm x 28 mm

Construction type:straight Model:....female/female Temperature Range (Operation): 0 – 70 °C Temperature Range (Storage):...-40 – 85 °C

ArtNo.	Category
IP68DFKRJ456AWP	6A (TIA)
IP68DFKRJ45WP	6

Accessory

ArtNo.	Description
K3130.1	RJ45 Patch cable S/FTP, Cat.6A, PUR, Cat.7 Raw cable, TM31, 1m, black
99733.1-CPR	Cat.7 In-/Outdoor cable 1200MHz AWG23 S/FTP,PE jacket, inner Dca, Sw& Or,1000m
88035.1	RJ45 Connector STP, Cat.6, Field-Plug





IP68STCAP

IP68 Cable gland for RJ45 field installable plugs, 4.5-6.5mm

IP68 cable gland for RJ45 field-assembly plugs With bayonet lock to IEC61076-3-106 Straight outlet 180°

Delivery unequipped

Scope of delivery: 3-part consisting of: 1x IP68 cable gland housing (without plug) 1x Cable seal IP68FST6AA: 4.5-6.5mm 1x Strain relief fitting

Accessory:

IP68 Cap: IP68STCAP

Field assembly plug: 88035.1, 88035UTP.1, 88035AV.1, IVB-6A-S

Utilization:	.Cable outlet
With dust cover:	.Yes
Material:	.Plastic
Type of locking:	.Bayonet lock
Suitable for degree of p	rotection (IP): IP68

ArtNo.	
IP68FST6AA	
IP68FST6AB	

Accessory

ArtNo.	Description
IP68STCAP	IP68 Dust cap for cable gland, Bayonet locking acc. to IEC61076-3-106



IP68 Cable gland for RJ45 HRS TM11/21/31 St

IP68 cable gland for RJ45 plug: Hirose TM11/21/31 With bayonet lock to IEC61076-3-106 Straight outlet 180 °

Delivery unequipped

Scope of delivery: 3-part consisting of: 1x IP68 cable gland housing (without plug) 1x Cable gland 4,5-6,5mm 1x Strain relief fitting

Accessories:

IP68 Cap: IP68STCAP

Utilization:Cal	ble outlet
With dust cover:Yes	S
Material:Pla	stic
Type of locking:Bay	yonet lock
Suitable for degree of protection	(IP): IP68



Accessory

ArtNo.	Description
IP68STCAP	IP68 Dust cap for cable gland, Bayonet locking acc. to IEC61076-3-106

IP68STCAP











Cat.6A IP67 Distribution Box

Housing: Complete with 2 x Cat.6A RJ45 Keystone, IP67 strip for patch cable IP67 (K8670.x) and 2 x cable glands M16

Housing entry: 2 x cable glands M16 for data cable (reference Cat.7 UC900)

Housing outlet: 2 x Cat.6A RJ45 Keystone with IP67 strip

Plastic housing

Dimension W x H x D: 80 x 45 x 110 mm

Recommended Patch Cable: K8670.x

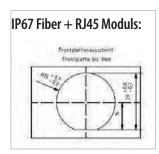
Category:	6A (TIA)
Material connector housing:	plastic
Type of connector:	RJ45 8(8)
Connection type:	LSA
Outlet direction:	straight
With dust cover:	True
Degree of protection (IP):	.IP67

Art.-No. 53730.1V2

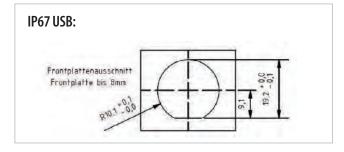
accessory

ArtNo.	Description
K8670.1	RJ45 Patch cable S/FTP, Cat.6A, IP67/TM21 / TM21, PUR, for 53730.1V2, 1m

Installation dimension for fittings and lead-through adapters:











IP67 Cable gland, M25, RJ45 TM31, M-M

Category:	. 6A (TIA)
Cable type:	.S/FTP
Type of connector connection 1:	: RJ45 8(8)
Type of connector connection 2:	: RJ45 8(8)
Fire retardant version:	. Yes
Halogen free:	. Yes
Cable construction:	. 4x2
Pin assignment:	. 1:1
AWG-size:	. 27
Type of housing:	. Brass Nickel-plated

Stock length: 1,0 - 2,0 - 5,0 - 10 m

Art.-No. Colour outer sheath

IP67KVRJ45TM31-x | blue







IP67 Receptacle, M25, RJ45 Cat.6A E-20070

•		
Category:	6A (TIA)	
Model:	Jack (Jack))
Type of connector:	RJ45 8(8)	
Screened:	Yes	
Connection type:	IDC	
AWG-range for litz wire co	onductor:	26 – 24
AWG-range:	24 – 22	
Housing material:	Brass Nick	el-plated
Type of locking:	M25	
Dust cover:	Yes	

Art.-No.

IP67EBRJ45KSFL





IP67 metal adapter, M25, RJ45 Cat.6A, F-F

Connection 1:	RJ45 8(8) Ja	ck
Connection 2:	RJ45 8(8) Ja	ck
Type of housing:	Brass nickel	-plated
Type of locking:	M25	
Suitable for degree of prot	ection (IP):	IP67

ArtNo.	Dust cover
IP67DFKRJ45FL	Yes
IP67DFKRJ45FLHS	Captive (Service)







IP67 metal adapter, M25, LC Duplex ceramic sleeve

ArtNo.	Dust cover
IP67DFKLCDM	Yes
IP67DFKLCDMHS	Captive (Service)





IP67 Cable gland, M25, LC-Duplex

Number of fibres:	2
APC-version:	No
Cable Ø:	2.0
Flame retardant:	According to EN 50265-2-1
Halogen free (according to EN 5026	57-2-3): Yes
Type of connector connection 1:l	LC-Duplex
Connector colour 1:k	beige
Type of connector connection 2:l	LC-Duplex
Connector colour 2:k	beige
Jacket Material:l	LSZH
Stock Lengths: 2.0 - 5.0 - 10 - 20 m	

ArtNo.	Colour outer sheath	Fiber type	Category
IP67KVLCDOS2-2,0	yellow	Singlemode	OS2 acc. to ITU-T G.652.D
IP67KVLCDOM3-2,0	aqua	Multimode 50/125	OM3









IP67 Cable gland, M20, USB2.0

Type of housing:Brass nickel-plated
Type of locking:M20
Suitable for degree of protection (IP): IP67

ArtNo.	Type of connector 1	Type of connector connection 2	Dust cover	Туре
IP67KVUSBA-A1,0	USB-A Plug	USB-A Plug		cable gland, 1m
IP67EBUSBA-A0,5FL	USB-A Jack	USB-A Plug	Yes	panel socket, 0,5m
IP67EBUSBA-A0,5FLHS	USB-A Jack	USB-A Plug	Captive (Service)	panel socket, 0,5m

IP67 Cable gland, M25, HDMI2.0

ArtNo.	Type of connector tor connection 1	Type of connector 2	Dust cover	Туре
IP67KVHDMIA-A1,0	HDMI Plug	HDMI Plug		cable gland, 1m
IP67EBHDMIA-A1,0FL	HDMI Jack	HDMI Plug	Yes	panel socket, 1m
IP67EBHDMIA-A1,0FLHS	HDMI Jack	HDMI Plug	Captive (Service)	panel socket, 1m





IP67 metal adapter, M20, USB3.0, F-F, A-A

ArtNo.	Dust cover
IP67DFKUSBFL	Yes
IP67DFKUSBFLHS	Captive (Service)





IP67 metal adapter, M25, HDMI2.0, F-F, A-A

Connection 1:	HDMI-A Jack	<
Connection 2:	HDMI-A Jack	<
Type of housing:	Brass nickel-	-plated
Type of locking:	M25	
Suitable for degree of prote	ection (IP):	IP67

ArtNo.	Dust cover
IP67DFKHDMIFL	Yes
IP67DFKHDMIFLHS	Captive (Service)



Free Standing Housing / Wall-Mount Housing	P. 171
LSA Range 1 & 2	P. 172
Overvoltage Protection Range 2	P. 173
LSA Tools	P. 174
VKA / VKU	P. 175
ISDN Patch Panel / Modular Plugs	P. 178
Adapter / Port Doubler	P. 179
Modular Cables / Identifiers	P. 180

TELECOM //





Wall-Mounted Distribution Cabinets TWL

Closed sheet steel cabinet with swivel turning handle for profile half-cylinder Cable entry at top and bottom via brush terminal Colour RAL7035, light grey

Degree of protection IP40

ArtNo.	Туре	Module Slots	in Pairs	Width	Height	Depth	Weight
46074.1V2	TWL 300	2 x 18	300	600 mm	600 mm	240 mm	25 kg
46075.1V2	TWL 500	2 x 26	500	600 mm	800 mm	240 mm	29 kg
46076.1V2	TWL 900	2 x 46	900	600 mm	1300 mm	240 mm	35 kg
46077.1V2	TWL 1350	3 x 46	1350	800 mm	1300 mm	240 mm	40 kg



19" Subracks 1U & 3U

With LSA backmount frames

For accommodating from 3 x 2 to 3 x 5 LSA modules 2/10 10 pairs horizontal Width 480 mm, depth 100 mm

RAL9005, jet black

ArtNo.	Description	Modules
46055.2	19" Subrack 1U 60pairs with Backmount Frames	3 x 2
46055.3	19" Subrack 3U 150pairs with Backmount Frames	3 x 5







Profile Half-Cylinders

Profile half-cylinder acc. to DIN 18252 / EN1303 With push-button for unlocking Suitable for EFB standard turning handles (Art.-No. 102179), compact turning handle (Art.-No. 699989) and telecom distributors TWL/TSL

ArtNo.	Description
46086.1	Profile Half-Cylinder Locking 15, with 1 Key Q15
46087.1	Profile Half-Cylinder Locking T3, incl. 2 Keys
46087.2	Profile Half-Cylinder Locking T4, incl. 2 Keys
46087.3	Profile Half-Cylinder for Locking 3524E
46087.4	Profile Half-Cylinder with Push-Button



Plinth for Free-Standing Distribution Cabinet TSL

Plinth for free-standing distribution cabinet TSL

ArtNo.	Suitable for	Width	Height	Depth
46121.1	TSL 1200	600 mm	100 mm	400 mm



Free-Standing Distribution Cabinets TSL

Cabinet with removable side walls, suitable for in-line arrangement With turning handle for profile half-cylinder and three-point bar lock Cable entry from top via rubber clamp, from bottom via three-part base plate

Colour RAL7035, light grey

Protection degree IP54 with cable infeed from bottom, otherwise IP40 Socket 100/200 mm as accessory

ArtNo.	Туре	Module Slots	in Pairs	Width	Height	Depth	Weight
46078.1V2	TSL 1200	2 x 72	1200	600 mm	2000 mm	400 mm	98 kg
46079.1V2	TSL 1800	3 x 72	1800	800 mm	2000 mm	400 mm	120 kg
46080.1V2	TSL 2400	4 x 72	2400	1000 mm	2000 mm	400 mm	135 kg







LSA - Connection Modules 170 mm

LSA connection 1/20 and earth modules 1/84 for screw fastening Fixing dimension 170 mm

ArtNo.	Description
46001.1V2	LSA Connection Module 1/20 20pairs
46002.1V2	LSA Earth Module 1/84 84-pole

LSA - Connection Modules 96 mm

LSA connection 1/10 and earth modules 1/44 for screw fastening Fixing dimension 96 mm

ArtNo.	Description
46001.2	LSA Connection Module 1/10 10pairs
46002.2	LSA Earth Module 1/44 44-pole

Hinged Label Holder

Hinged

One-side printed with 1..10 (46003.2) One-side printed with 2 x 1..10 (46003.1)

ArtNo.	Description
46003.2	Hinged Label Holder 1/10
46003.1	Hinged Label Holder 1/20



LSA Connection & Disconnection Modules 2/10

For LSA backmount frames / channels All contacts jumpered with the earth connection

ArtNo.	Description
46005.1	LSA Disconnection Module 2/10 10 pairs w/o Colour Code
46005.1F	LSA Disconnection Module 2/10 10 pairs with Colour Code
46006.1	LSA Connection Module 2/10 10 pairs w/o Colour Code
46006.1F	LSA Connection Module 2/10 10 pairs with Colour Code
46007.1	LSA Earth Module 2/38 38-pole



Modular Label Holder 2/10

For snapping onto LSA backmount frames / channels Not printed

ArtNo.	Description
46008.1	Modular Label Holder 2/10



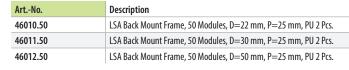
LSA Adapters Disc. Module/ Screw Contact

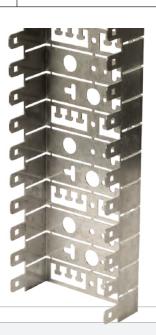
For LSA backmount frames / channels Disconnection module with 20 screw contacts on the routing side for wires up to 2.5 mm²

ArtNo.	Description
46085.1	LSA Adapter Disc. Module 10 pairs / Screw Contacts



For LSA modules 2/10 10pairs Pitch (terminal-terminal distance) 25 mm The depths are 22 / 30 / 50 mm Individual modules are easy to cut off from the LSA backmount frame with diagonal cutter by customer, making them universally usable Number of modules = 50







LSA - Connection & Disconnection Modules 2/10

For profile rod mounting
All contacts jumpered with the earth connection

ArtNo.	Description
46006.2	LSA Connection Module 2/10 10 pairs for Profile Rods, w/o Colour Code
46006.2F	LSA Connection Module 2/10 10 pairs for Profile Rods, with Colour Code
46005.2	LSA Disconnection Module 2/10 10 pairs for Profile Rods, w/o Colour Code
46005.2F	LSA Disconnection Module 2/10 10 pairs for Profile Rods, with Colour Code
46007.2	LSA Earth Module 2/34 34pole for Profile Rods



Hinged Label Holder 2/10

Can be mounted on LSA modules 2/10 10pairs and surge protection magazines Unprinted

Can be labelled on both sides

	ArtNo.	Description
	46009 1	Hinged Lahel Holder 2/10



For snapping onto profile rods Unprinted

ArtNo.	Description
46008.2	Profile Modular Label Holder



19" Subrack 3U for LSA Modules 8pairs and 10pairs

With 2 horizontal mounting rods 12 mm stainless steel, depth-adjustable
For accommodation of up to 18 LSA modules
10pairs and 8pairs vertically
Cable infeed from rear or side possible
Rear-sided cable clamping
Earth connection with nut M6 on the side part
Front-sided cable clamping optionally, e.g. for
DSLAM cable: Art.-No. 46054.2A
Material stainless steel

ArtNo.	Description
46054.2	19" Subrack 3U for LSA Modules 8pairs & 10pairs

Weight 0.5 kg



LSA Surge Arrester ÜsAg

Gas-filled Rated discharge current 10 kA

ArtNo.	Туре
46142.1	8 x 6 / 90 V / 10 kA
46143.1	8 x 6 / 230 V / 10 kA
46144.1	8 x 6 /230 V / 10 kA + Failsave
46145.1	8 x 13 / 90 V / 10 kA
46146.1	8 x 13 / 230 V / 10 kA
46147.1	8 x 13 / 230 V / 10 kA + Failsave

LSA Overvoltage Protection Magazine 2/10

46140.1 - 20 arresters per magazine 46141.1 - 10 arresters per magazine

ArtNo.	Туре
46140.1	LSA-Overvoltage Protection Magazine 2/10 10pairs 8x6
46141.1	LSA-Overvoltage Protection Magazine 2/10 10pairs 8x13

DP 1LSA-T110 FS- PTC



Fine Protection 1pair

Overvoltage and overcurrent protection for signal and data lines

Coarsel protection, fine protection, overload protection » Fail-Safe

Integrated overcurrent protection by PTC resistor Leakage current 10 kA, impulse spark-over voltage 230 V

For direct and alternating voltage Operating current 150 mA nominal

ArtNo.	Туре
46150.24	1pair Fine Protection with Failsafe V= 24V
46150.48	1pair Fine Protection with Failsafe V= 48V
46150.60	1 pair Fine Protection with Failsafe V = 60V



Earthing Contact Clip

For overvoltage protection contacting during profile rod installation
Per magazine 2 pieces required

ArtNo.	Description
46148.1	Earth Connection Clip for Profile Rod

Earthing Bar 2/10

For connecting the 1pair fine protection plug to the earth potential

1 x earthing bar required per LSA connection module 2/10

ArtNo.	Description
46152.1	Earthing Bar 2/10



Connection Cord 2/4 4-pole, Plugs for LSA Disconnection-Modules 2/10 10pairs

With 2 LSA plugs 2/4 4-pole, for 2-pole and 4-pole switching

Stock lengths: 1.0 - 2.0 - 3.0 m

ArtNo.	Description
46119.x	Connection Cord 2/4 4-pole, Plugs for LSA
	Disconnection-Modules 2/10 10pairs



Connection Cord RJ45 - LSA 1Pair

For the connection of 4 wiring telecommunication services into structured cabling systems Assignment 4/5 - 3/6

Stock lengths: 1.0 - 2.0 - 3.0 m

ArtNo.	Description
46130.x	Connection Cord RJ45 - LSA 1pair 2-pole
46131.x	Connection Cord RJ45 - LSA 1pair 4-pole





Disconnection Plug 1Pair

For LSA disconnection modules 2/10 10pairs Disconnects the line path Other colours on request

ArtNo.	Description
46154.1	Disconnection Plug 1pair Red







Disconnection Plug 2/10 10 pairs

Cable and routing side can be separated on LSA disconnection modules 2/10 to 10pairs

ArtNo.	Description
46014.1	LSA Disconnection Plug 2/10 10pairs

LSA/IDC Insertion Tool

Simultaneous wire cutting

For applying the cable cores to LSA connection technology For cable diameter 0.4..0.8 mm

ArtNo.	Description
39933.1	LSA Insertion Tool

LSA/IDC Insertion Tool for Keystones

Insertion tool for twisted pair cables Especially recommended for UTP keystone jacks

ArtNo.	Description
39931.1	LSA/IDC Insertion Tool for UTP Keystones



LSA/IDC Insertion Tool with Sensor

LSA insertion tool for LSA terminals and simultaneous cutting The sensor (only Art.-No. 39951.1) ensures correct positioning of the wire in the LSA/IDC contact

ArtNo.	Description
39951.1	Krone LSA Insertion Tool with Sensor





VKA Housing

Consists of sheet steel box with basic plate and cover with latch VKA mounting kits for 10pairs and 20pairs can be screwed on the basic plate Cable entries on the bottom and the top of the cover Colour of the cover: RAL9016 traffic white Protection degree IP30

Sheet of paper for connection registration

Advice: weight including mounting kit







ArtNo.	Туре	Width	Height	Depth	Weight
46017.1V1	VKA2	200 mm	330 mm	100 mm	2.80 kg
46018.1V1	VKA4	330 mm	330 mm	100 mm	3.22 kg
46019.1V1	VKA8	330 mm	550 mm	100 mm	5.23 kg
46020.1V1	VKA12	550 mm	550 mm	100 mm	9.00 kg



Locking T3 for VKA

With 2 keys

ArtNo.	Description
46040.1	Locking T3/1333 for VKA and VKU with 2 Keys



VKA Mounting Kit 10pairs

Mounting kit for snapping of LSA technology 2/10 10pairs

Including cable entry protection and set of screws for mounting

Overvoltage protection magazines mountable (VKA2 50 pairs, VKA4 100 pairs, VKA8 240 pairs, VKA12 380 pairs)

ArtNo.	Туре	Module Slots	in Pairs
46017.10	VKA2	1 x 7	70
46018.10	VKA4	2 x 7	140
46019.10	VKA8	4 x 7	280
46020.10	VKA12	6 x 7	420



VKA Mounting Kit 20pairs

Mounting kit for screwing of LSA technology 1/20 20pairs

Including cable entry protection and set of screws for mounting

ArtNo.	Туре	Module Slots	in Pairs
46017.20	VKA2	1 x 5	100
46018.20	VKA4	2 x 5	200
46019.20	VKA8	4 x 5	400
46020.20	VKA12	6 x 5	600





VKA with Assembled Mounting Kit 10pairs

Consists of sheet steel box with basic plate and cover with latch With assembled mounting kit 10pairs (for LSA modules 2/10 10pairs)

ArtNo.	Туре	Mdule Slots	in Pairs	Width	Height	Depth	Weight
46017.1V10	VKA2	1 x 7	70	200 mm	330 mm	100 mm	2.8 kg
46018.1V10	VKA4	2 x 7	140	330 mm	330 mm	100 mm	3.22 kg
46019.1V10	VKA8	4 x 7	280	330 mm	550 mm	100 mm	5.23 kg
46020.1V10	VKA12	6 x 7	420	550 mm	550 mm	100 mm	9.0 kg

VKA with Assembled Mounting Kit 20pairs

Consists of sheet steel box with basic plate and cover with latch With assembled mounting kit 20pairs (for LSA module 1/20 20pairs)

ArtNo.	Туре	Module Slots	in Pairs	Width	Height	Depth	Weight
46017.1V20	VKA2	1 x 5	100	200 mm	330 mm	100 mm	2.8 kg
46018.1V20	VKA4	2 x 5	200	330 mm	330 mm	100 mm	3.22 kg
46019.1V20	VKA8	4 x 5	400	330 mm	550 mm	100 mm	5.23 kg
46020.1V20	VKA12	6 x 5	600	550 mm	550 mm	100 mm	9,0 kg



VKU with assembled Mounting Kit 20pairs

Consists of sheet steel box with basic plate and cover with latch With assembled VKU mounting kit 20pairs (for LSA technology 1/20 20pairs)

ArtNo.	Туре	Mdule Slots	in Pairs	Width	Height	Depth	Weight
46017.3	VKU2	3	60	280 mm	380 mm	83 mm	2.8 kg
46018.3	VKU4	5	100	380 mm	380 mm	83 mm	2.8 kg



LSA Minibox 201C 20pairs

Fitted with 2 LSA disconnection modules 2/10 10pairs

ArtNo.	Туре	Pairs	Width	Height	Depth	Weight
46053.1	LSA Minibox 201C 20DA	20	120 mm	170 mm	42 mm	0,.25 kg



TT Small Distributor Box 1/2/3 IP54

With LSA backmount frame for LSA connection modules 2/10 10pairs With screw closure

Protection degree IP54

ArtNo.	Туре	Pairs	Width	Height	Depth	Weight
46050.2	TT Small Distr. Box 1	30	166 mm	240 mm	99 mm	0.37 kg
46051.1	TT Small Distr. Box 2	50	190 mm	215 mm	90 mm	0.52 kg
46052.1	TT Small Distr. Box 3	100	190 mm	375 mm	115 mm	1.04 kg



TT Small Distribution Boxes 4 IP54

With LSA backmount frame for LSA connection modules 2/10 10 pairs With lock

Protection degree IP54

ArtNo.	Туре	Pairs	Width	Height	Depth	Weight
46049.1	TT Small Distr. Box 4	20	103 mm	185 mm	90 mm	0.3 kg







Plastic Distribution BOX I / BOX II / BOX III

Plastic distributor, indoor Protection degree IP30

With 1 x backmount frame for 3/5/10 x LSA connection modules 2/10 10 pairs Incl. cover plates for the all-side prepared cable entries

ArtNo.	Туре	in Pairs	Width	Height	Depth	Weight
46025.3	Box I 30pairs with Latch	30	140 mm	170 mm	76 mm	0.5 kg
46025.4	Box I 30pairs with Lock	30	140 mm	170 mm	76 mm	0.5 kg
46025.1	Box II 50pairs with Latch	50	215 mm	215 mm	76 mm	0.83 kg
46025.2	BOX II 50pairs with Lock	50	215 mm	215 mm	76 mm	0.83 kg
46026.1	Box III 100pairs with Latch	100	215 mm	320 mm	76 mm	1.4 kg
46026.2	Box III 100pairs with Lock	100	215 mm	320 mm	76 mm	1.4 kg

Stacking Frame

Necessary for plugging in surge protection Suitable for Box I/II/III

ArtNo.	Description
46025.5	Stacking Frame for Box I
46027.1	Stacking Frame for Box II
46029.1	Stacking Frame for Box III

Flush-Mount Frame

Flush mounting frame for flush mounting Suitable for Box I/II/III

ArtNo.	Description
46025.6	Flush Mounting Frame for Box I (46025.3, 46025.4)
46028.1	Flush Mounting frame for Box II (46025.1, 46025.2)
46030.1	Flush Mounting Frame for Box III (46026.1, 46026.2)



Fire Protection Boxes VKA E30

With built-in LSA backmount frame 2/10 Galvanised sheet steel housing Protection degree IP43

Lining with fire protection panels and intumescence material in cable entry area

Inner depth enables plug-in of surge protection magazines

Tested acc. to DIN 4102 Part 2

Building approval by the DIBT-Berlin Z-86.1-39

ArtNo.	Туре	Width	Height	Depth	Module Slots	in Pairs	Cable Entries	Weight
46042.1	VKA E30/20	200 mm	250 mm	130 mm	2	20	2 x PG29, 8 x PG16	5.1 kg
46042.2	VKA E30/60	250 mm	350 mm	130 mm	6	60	2 x PG29, 24 x PG16	7.9 kg
46042.3	VKA E30/100	250 mm	450 mm	130 mm	10	100	2 x PG29, 24 x PG16	10 kg
46042.4	VKA E30/200	450 mm	450 mm	130 mm	20	200	4 x PG29, 40 x PG16	16.3 kg
46042.5	VKA E30/400	450 mm	700 mm	130 mm	40	400	4 x PG29, 40 x PG16	24.2 kg



Category 3 Unshielded RJ45 8(4) jacks 4-pole LSA IDC terminals Assignment: 3-6/4-5 High packing density Strain relief via cable ties

ArtNo.	Description	Number of Ports	Colour	RAL-Number
37588.1	Patch Panel 25 x RJ45 8/4 1U ISDN, RAL7035, Cat. 3	25	Grey	RAL7035
37588SW.1	Patch Panel 25 x RJ45 8/4 1U ISDN, RAL9005, Cat. 3	25	Black	RAL9005
37595.2	Patch Panel 50 x RJ45 8/4 1U ISDN, RAL7035, Cat. 3	50	Grey	RAL7035
37595SW.2	Patch Panel 50 x RJ45 8/4 1U ISDN, RAL9005, Cat.3	50	Black	RAL9005



Modular Plug UTP for Round Cable

Modular-Connector unshielded RJ69 10P10C For round cable Suitable crimping tool for RJ10/RJ11/RJ12/RJ45: Art.-No. E-MUC410 Suitable Crimping tool for RJ69: Art.-No. 39945.2

ArtNo.	Description
37517.1-100	Modular-Connector RJ10 UTP, E-MO 4/4 SR, 100 pcs.
37516.1-100	Modular-Connector RJ11 UTP, E-MO 6/4 SR, 100 pcs.
37518.1-100	Modular-Connector RJ12 UTP, E-MO 6/6 SR, 100 pcs.
37519.1-100	Modular-Connector RJ45 UTP, E-MO 8/8 SR, 100 pcs.
37539.1-100	Modular-Connector RJ69 UTP, E-MO 10/10 SR, 100 pcs.



Modular Plug UTP for Flat Cable

Modular-Connector unshielded RJ45 8P4C For flat cable

Suitable crimping tool for RJ10/RJ11/RJ12/RJ45: Art.-No. E-MUC410 Suitable crimping tool for RJ69: Art.-No. 39945.2

ArtNo.	Description
37512.1-100	Modular-Connector RJ10 UTP, E-MO 4/4 SF, 100 pcs.
37511.1-100	Modular-Connector RJ11 UTP, E-MO 6/4 SF, 100 pcs.
37513.1-100	Modular-Connector RJ12 UTP, E-MO 6/6 SF, 100 pcs.
37514.1-100	Modular-Connector RJ45 UTP, E-MO 8/8 SF, 100 pcs.
37542.1-100	Modular-Connector DEC UTP, E-MO 6/6 SF, 100 pcs.
37673.1-100	Modular-Connector RJ45 UTP, E-MO 8/4 SF, 100 pcs.



RJ45 Strain Relief Boots

Anti-Kink sleeve for 37541.3, 37514.1, 37519.1, 37539.1, 37640.1, 34600.1 Cable entry max. 6.6 mm

ArtNo.	Description
37546.1-100	Anti-Kink Sleeve RJ45 Beige, with Latch Protection, 100 Pcs.
37546.4-100	Anti-Kink Sleeve RJ45 Black, with Latch Protection, 100 Pcs.
37546.5-100	Anti-Kink Sleeve RJ45 Yellow, with Latch Protection, 100 Pcs.
37546.6-100	Anti-Kink sleeve RJ45 Red, with Latch Protection, 100 Pcs.
37546.7-100	Anti-Kink sleeve RJ45 Blue, with Latch Protection, 100 Pcs.
37546.8-100	Anti-Kink sleeve RJ45 Green, with Latch Protection, 100 Pcs.



Crimping Tool for Modular Plugs

For 4-, 6-, 6-DEC-, 8-, AMP, and shielded RJ45 Far East and for cutting and stripping

Ideal for field assembly

Following plugs can be crimped:

37517.1, 37516.1, 37518.1, 37512.1, 37511.1, 37513.1, 37514.1, 37542.1

ArtNo.	Description
E-MUC410	Crimping Tool for Modular Connectors 4-8 pole







ISDN Adapters, Terminated

RJ45 plug to 8 x RJ45 jack Shielded RJ45 jacks Assignment 1:1 Pins 3-6, 4-5 terminated

K5269.015
& 37531.1

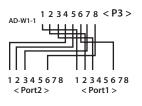
ArtNo.	Description	Colour	Cable Length
37531.1	Multiport-Adapter 1 x RJ45 Plug to 4 x RJ45 Jack	Black	0.15 m
K5116.015	ISDN 2 x Adapter, RJ45 Plug / 2 x RJ45 Jack, Terminated	Black	0.15 m
K5117.015	ISDN 5 x Adapter RJ45 Plug / 5 x RJ45 Jack, Terminated	Black	0.15 m
K5269.015	ISDN 8 x Adapter, RJ45 Plug / 8 x RJ45 Jack, Terminated	Black	0.15 m



ISDN Adapter

Pins 3-6, 4-5 terminated

ArtNo.	Description	Colour	Cable Length
K5067.015	ISDN Adapter RJ45 Plug/Jack, Terminated	Black	0.15 m

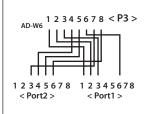


Cat.5e 2 x 10/100BaseT

RJ45 plug to 2 x RJ45 jack 15 cm cable

Serves as port doubler for the structured cabling

ArtNo.	Description
K5122.015	T-Adapter Cat.5e 2 x 10/100BaseT for Cable Sharing

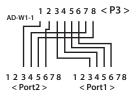


Cat.5e 10/100BaseT / ISDN

RJ45 plug to 2 x RJ45 jack 15 cm cable

Serves as port doubler for the structured cabling

ArtNo.	Description
K5123.015	T-Adapter Cat.5e 10/100BaseT / ISDN for Cable Sharing

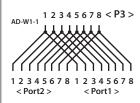


2 x ISDN

RJ45 plug to 2 x RJ45 jack 15 cm cable

Serves as port doubler for the structured cabling

ArtNo.	Description
K5124.015	T-Adapter 2 x ISDN for Cable Sharing

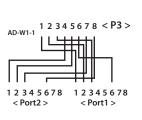


2 x 1:1

RJ45 plug to 2 x RJ45 jack 15 cm cable

Serves as port doubler for the structured cabling

ArtNo.	Description
K5125.015	T-Adapter 1:1 Parallel



Cat.6 2 x 10/100BaseT

RJ45 plug to 2 x RJ45 jack 15 cm cable

Serves as port doubler for the structured cabling

ArtNo.	Description
K5126.015	T-Adapter Cat.6 2 x 10/100BaseT for Cable Sharing



T-Adapter Modular

T adapter for network cables RJ45 jack / 2 x RJ45 jack 8-pole wired

RJ45 jacks shielded, assignment 1:1

ArtNo.	Description
37528.1	T-Modular-Adapter, RJ45 Jack/2 x Jack 1:1, Shielded







Modular Cable RJ12 - RJ45

Assignment: 1-2, 2-3, 3-4, 4-5, 5-6, 6-7 Flat cable

Stock lengths: 1.0 - 3.0 - 6.0 m

Art.-No. Description

K2406SW.x Modular/ISDN Cable RJ12 - RJ45, Black

Modular Cable RJ10 - RJ10

Assignment 1:1 Flat cable

Stock lengths: 0.5 - 1.0 - 1.5 - 2.0 - 3.0 - 5.0 - 10 - 15 - 20 m

ArtNo.	Description
K2402SW.x	Modular Cable RJ10 - RJ10, Black

Modular Cable RJ45 - RJ45

Assignment 1:1 Flat cable

Stock lengths: 0.5 - 1.0 - 1.5 - 2.0 - 3.0 - 6.0 - 10 m

ArtNo.	Description
K2407SW.x	Modular Cable RJ45 - RJ45, Black



Modular Cable RJ12 - RJ12

Assignment 1:1 Flat cable

Stock lengths: 1.0 - 2.0 - 3.0 - 6.0 - 10 m

ArtNo.	Description
K2404SW.x	Modular Cable RJ12 - RJ12, Black



Modular Cable RJ11 - RJ11

Assignment 1:1 Flat cable

Stock lengths: 0.20 - 0.50 - 1.0 - 1.5 - 2.0 - 3.0 m

Art.-No. Description

K2413SW.x Modular Cable RJ11 - RJ11, Black



ISDN Cable RJ45 (8/4) - RJ45 (8/4)

Assignment 3-3, 4-4, 5-5, 6-6 Round cable

Stock lengths : 0.5 - 1.0 - 2.0 - 3.0 - 6.0 - 10 m

ArtNo.	Description
K2408.x	ISDN Cable RJ45 - RJ45, 4-pole, Black



ISDN Cable RJ45 (8/4) - RJ45 (8/4)

Assignment 3-3, 4-4, 5-5, 6-6 Round cable

Stock lengths : 0.5 - 1.0 - 1.5 - 2.0 - 3.0 - 6.0 - 10 m

ArtNo.	Description
K2422.x	ISDN Cable RJ45 - RJ45, 4-pole, Moulded, Blac



Connection Wire YV, Ø Core: 2 x 0.5 / 0.9 mm

100 m drum Other types on request

ArtNo.	Outer Diameter (mm)	Colour Outer Sheath	Cores
46088.100	0.9	red/green	2
46090.100	0.9	white/brown	2
46091.100	0.9	red/blue	2
46092.100	0.9	white/green	2
46093.100	0.9	white/yellow	2
46094.100	0.9	white/blue	2
46095.100	0.9	white/red	2
46096.100	0.9	white/black	2
46097.100	0.9	white/pink	2
46098.100	0.9	black/red	2

Connection Wire YV, Ø Core: 2 x 0.6 / 1.1 mm

100 m drum Other types on request

ArtNo.	Outer Diameter (mm)	Colour Outer Sheath	Cores
46099.100	1.1	white/brown	2
46100.100	1.1	white/blue	2
46101.100	1.1	white/pink	2
46102.100	1.1	white/green	2
46103.100	1.1	white/red	2
46104.100	1.1	white/black	2
46106.100	1.1	red/black	2
46107.100	1.1	white/yellow	2
46108.100	1.1	red/green	2





Modular Flat Cable Unshielded

According German Post Office standard 1=white, 2=brown, 3=green, 4=yellow, 5=grey, 6=pink, 7=blue, 8=red, 9=black, 10=violet Unshielded

ArtNo.	Outer Diameter	Colour	Cores
91104.100	2.5 x 5.0 (100 m)	Black	4
91104.500	2.5 x 5.0 (500 m)	Black	4
91106.100	2.0 x 7.0 (100 m)	Black	6
91106.500	2.0 x 7.0 (500 m)	Black	6
91108.100	2.5 x 8.8 (100 m)	Black	8
91108.500	2.5 x 8.8 (500 m)	Black	8
91110.100	2.5 x 10.7 (100 m)	Black	10
91105.100	2.5 x 5.0 (100 m)	Grey	4
91107.100	2.5 x 7.0 (100 m)	Grey	6
91109.100	2.5 x 8.8 (100 m)	Grey	8





Modular Flat Cable Shielded, Black

According German Post Office standard 1=white, 2=brown, 3=green, 4=yellow, 5=grey, 6=pink, 7=blue, 8=red, 9=black, 10=violet Colour black, with drain wire

ArtNo.	Outer Diameter	Colour	Cores
92704.100	2.5 x 5.2	Black	4
92706.100	2.5 x 7.0	Black	6
92708.100	2.5 x 9.3	Black	8

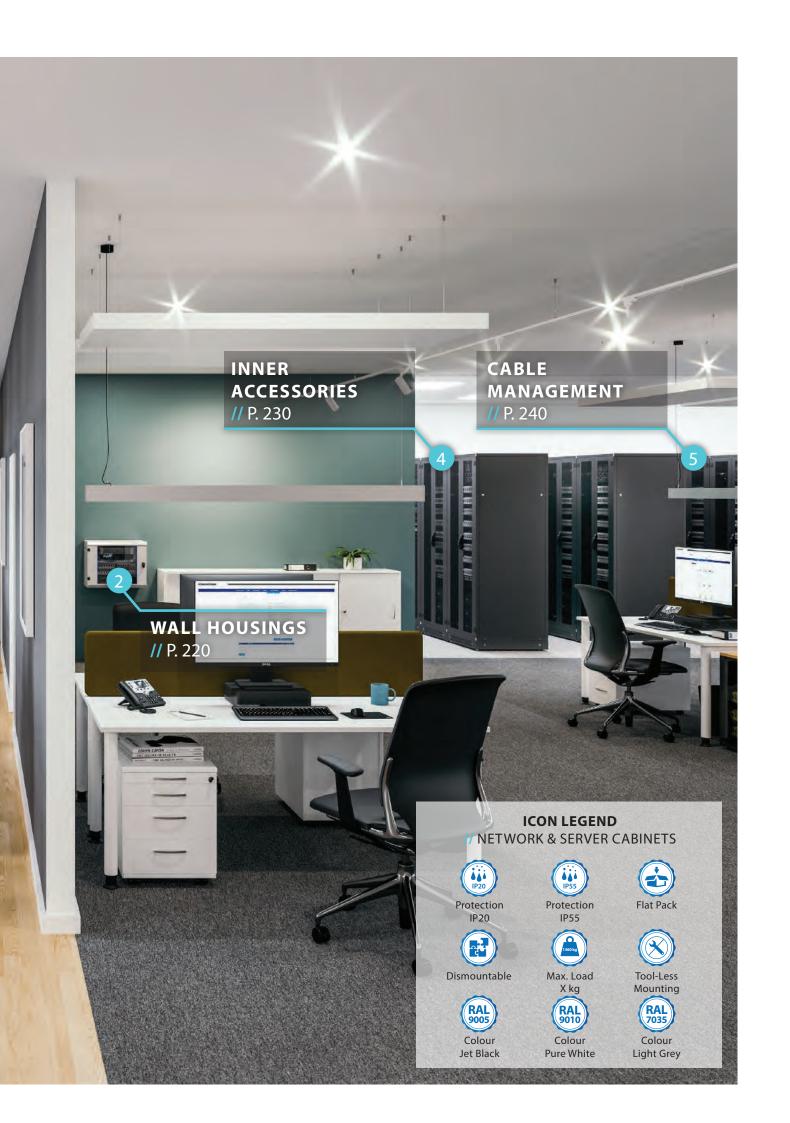


Modular Flat Cable Unshielded, International, Black

According international standard 1=grey, 2=orange, 3=black, 4=red, 5=green, 6=yellow, 7=blue, 8=brown Unshielded

ArtNo.	Outer Diameter	Colour	Cores
92804.100	2.5 x 5.0	Black	4
92806.100	2.5 x 7.0	Black	6
92808.100	2.5 x 8.8	Black	8







19" Network Cabinets PRO P. 185 19" Network Cabinets PRO Modular (Open Rack) P. 186 Doors & Side Walls PRO P. 187 19" Server Cabinets PRO P. 188 **Roof & Bottom Modules** P. 190 Accessories for Cabinet Series PRO P. 191 19" Rack Frame & Network Mini Frame P. 197 19" Premium Server Cabinets "EFB-Server" P.198 Cold / Warm Aisle Components, InRow & Side Coolers P. 206 19" Network Cabinets Office P. 208 19" Cabinets IP55 with Side Cooling P. 211 Monitoring / IP-Thermometer P. 213 19" Design & Acoustical Insulation Cabinets P. 214

// YOU MIGHT ALSO BE INTERESTED IN:

19" 3U Power Distribution Box	P. 234
Active Devices (Switches etc.)	P. 312
19" Socket Strips & Power Cables	P. 248







Roof with fan cutouts and surrounding cable entries



Cabinet bottom with pre-assembled earthing bar, surrounding cable entries and pre-punched opening A (380 x 380 mm)









19" Network Cabinets PRO

19" network cabinet according to DIN41494

Steel sheet housing with screwed frame, completely pre-assembled, self-ventilated, dismountable

Inside front and rear 4×19 "profiles (2 front, 2 rear-sided), galvanised, step-less depth-adjustable

Contrariwise numbering of rack units at the 19" profiles

Front door with window of certified safety glass (thickness 5 mm)

Front door with 3-point turning handle (up to 24U 1-point), lockable, incl. profile half-cylinder acc. to DIN18252 / EN 1303

Profile half-cylinder exchangeable by customer (30/10 mm)

Rear door steel, 1-part, shortened, with 2×1 latch locking (lock equal to door lock), 3U panel for cable entry below (690 \times 67 mm)

Door stop for front and rear door possible left- or right-sided

Detachable side walls with 2 x latch locking (lock equal to the door lock)
Cabinets stackable side-by-side with and without removal of the side walls,

baying set (Art.-No. PRO-ANR0X) Roof and bottom with 4/6 pre-punched openings for cable entry (450 x 90 mm),

for 600 mm cabinet width cable entry only rear

Roof prepared for accommodation of 2-fan or 4-fan units, bottom with pre-punched opening for filter or cable entry modules

Internal earthing of all cabinet sections

Pre-assembled earthing bar rear-sided in the middle of the cabinet (ports: $2 \times M5 + 2 \times 8 \text{ mm}$)

Max. load 1000 kg (depths 600 / 800 mm) resp. 1360 kg (depths 1000 / 1200 mm for >24U)

Paint finish RAL7035, light grey

Protection degree IP20

Included accessories: 1 x brush, 1 x set of captive nuts (PU 20 pcs.), earthing bar and earthing cables, 4 x levelling feet M12, 2 x key

Delivery in transport packaging on disposable pallet

ArtNo.	U	Width	Depth	Height	Front Door	Rear Door
PRO-1866GR.G1SV	18	600 mm	600 mm	896 mm	Glass door 1-part	Steel door 1-part
PRO-1868GR.G1SV	18	600 mm	800 mm	896 mm	Glass door 1-part	Steel door 1-part
PRO-1888GR.G1SV	18	800 mm	800 mm	896 mm	Glass door 1-part	Steel door 1-part
PRO-2466GR.G1SV	24	600 mm	600 mm	1163 mm	Glass door 1-part	Steel door 1-part
PRO-2468GR.G1SV	24	600 mm	800 mm	1163 mm	Glass door 1-part	Steel door 1-part
PRO-2488GR.G1SV	24	800 mm	800 mm	1163 mm	Glass door 1-part	Steel door 1-part
PRO-3366GR.G1SV	33	600 mm	600 mm	1563 mm	Glass door 1-part	Steel door 1-part
PRO-3368GR.G1SV	33	600 mm	800 mm	1563 mm	Glass door 1-part	Steel door 1-part
PRO-3360GR.G1SV	33	600 mm	1000 mm	1563 mm	Glass door 1-part	Steel door 1-part
PRO-3388GR.G1SV	33	800 mm	800 mm	1563 mm	Glass door 1-part	Steel door 1-part
PRO-4266GR.G1SV	42	600 mm	600 mm	1963 mm	Glass door 1-part	Steel door 1-part
PRO-4268GR.G1SV	42	600 mm	800 mm	1963 mm	Glass door 1-part	Steel door 1-part
PRO-4260GR.G1SV	42	600 mm	1000 mm	1963 mm	Glass door 1-part	Steel door 1-part
PRO-4286GR.G1SV	42	800 mm	600 mm	1963 mm	Glass door 1-part	Steel door 1-part
PRO-4288GR.G1SV	42	800 mm	800 mm	1963 mm	Glass door 1-part	Steel door 1-part
PRO-4280GR.G1SV	42	800 mm	1000 mm	1963 mm	Glass door 1-part	Steel door 1-part
PRO-4282GR.G1SV	42	800 mm	1200 mm	1963 mm	Glass door 1-part	Steel door 1-part
PRO-4768GR.G1SV	47	600 mm	800 mm	2186 mm	Glass door 1-part	Steel door 1-part
PRO-4788GR.G1SV	47	800 mm	800 mm	2186 mm	Glass door 1-part	Steel door 1-part
PRO-4780GR.G1SV	47	800 mm	1000 mm	2186 mm	Glass door 1-part	Steel door 1-part
PRO-4782GR.G1SV	47	800 mm	1200 mm	2186 mm	Glass door 1-part	Steel door 1-part

19" Network Cabinet PRO-Advanced, Rear Door with Turning Handle, RAL7035

Like PRO, but rear door steel, full height (without cable entry), 1-part, turning handle and 3-point bar-locking

ArtNo.	U	Width	Depth	Height	Front Door	Rear Door
PRO-4288GR.G1S1	42	800 mm	800 mm	1963 mm	Glass door 1-part	Steel door 1-part
PRO-4280GR.G1S1	42	800 mm	1000 mm	1963 mm	Glass door 1-part	Rear door 1-part









Cabinet bottom with pre-assembled earthing bar, surrounding cable entries and pre-punched opening A (380 x 380 mm)









19" Network Cabinet PRO-Modular, Open Rack"

19" rack frame according to DIN41494

Screwed steel sheet frame, completely pre-assembled, self-ventilated, dismountable

Inside front and rear $4\times19^{\circ}$ profiles (2 front, 2 rear-sided), galvanised, step-less depth-adjustable

Contrariwise numbering of rack units at the 19" profiles

Delivery without front/rear door and side walls for modular, individual configuration

For installed front and rear door, door stop left or right-sided possible Cabinets stackable side-by-side with and without removal of the side walls, baying set (Art.-No. PRO-ANROX), otherwise screwable via screw set M6 Roof and bottom with 4/6 pre-punched openings for cable entry (450×90 mm), for 600 mm cabinet width cable entry only rear

Roof prepared for accommodation of 2-fan or 4-fan units, bottom with prepunched opening for filter or cable entry modules

Internal earthing of all cabinet sections

Pre-assembled earthing bar rear-sided in the middle of the cabinet (ports: $2 \times M5 + 2 \times 8 \text{ mm}$)

Max. load 1000 kg (depths 600 / 800 mm) resp. 1360 kg (depths 1000 / 1200 mm for >24U)

Paint finish RAL7035, light grey / RAL9005, jet black

Protection degree IP20

Included accessories: 1 x brush, earthing bar pre-installed,

4 x levelling feet M12, 2 x key

Delivery in transport packaging on disposable pallet

Aut. No.	And No.							
ArtNo.	U	Width	Depth	Height	Front Door	Rear Door	Colour	
PRO-4266GR.0D	42	600 mm	600 mm	1963 mm	Without	Without	RAL7035	
PRO-4268GR.0D	42	600 mm	800 mm	1963 mm	Without	Without	RAL7035	
PRO-4260GR.0D	42	600 mm	1000 mm	1963 mm	Without	Without	RAL7035	
PRO-4262GR.0D	42	600 mm	1200 mm	1963 mm	Without	Without	RAL7035	
PRO-4286GR.0D	42	800 mm	600 mm	1963 mm	Without	Without	RAL7035	
PRO-4288GR.0D	42	800 mm	800 mm	1963 mm	Without	Without	RAL7035	
PRO-4280GR.0D	42	800 mm	1000 mm	1963 mm	Without	Without	RAL7035	
PRO-4282GR.0D	42	800 mm	1200 mm	1963 mm	Without	Without	RAL7035	
PRO-4266TS.0D	42	600 mm	600 mm	1963 mm	Without	Without	RAL9005	
PRO-4268TS.0D	42	600 mm	800 mm	1963 mm	Without	Without	RAL9005	
PRO-4260TS.0D	42	600 mm	1000 mm	1963 mm	Without	Without	RAL9005	
PRO-4262TS.0D	42	600 mm	1200 mm	1963 mm	Without	Without	RAL9005	
PRO-4286TS.0D	42	800 mm	600 mm	1963 mm	Without	Without	RAL9005	
PRO-4288TS.0D	42	800 mm	800 mm	1963 mm	Without	Without	RAL9005	
PRO-4280TS.0D	42	800 mm	1000 mm	1963 mm	Without	Without	RAL9005	
PRO-4282TS.0D	42	800 mm	1200 mm	1963 mm	Without	Without	RAL9005	
PRO-4780GR.0D	47	800 mm	1000 mm	1963 mm	Without	Without	RAL7035	
PRO-4782GR.0D	47	800 mm	1200 mm	1963 mm	Without	Without	RAL7035	
PRO-4780TS.0D	47	800 mm	1000 mm	1963 mm	Without	Without	RAL9005	
PRO-4782TS.0D	47	800 mm	1200 mm	1963 mm	Without	Without	RAL9005	

Prefix	U	Cabinet Width	Cabinet Depth	Colour	Door Types	Options
PRO-	42	8	8	GR	.G1SV	OS = without Side Walls
	47	6 = 600 mm	6 = 600 mm	TS = RAL9005, jet black	.G1 = Glass door 1-part	
	42	8 = 800 mm	8 = 800 mm	GR = RAL7035, light grey	.S1 = Steel door 1-part / S2 = Steel door 2-part	
	33		0 = 1000 mm		.P1 = Steel door, perforated, 1-part / P2 = Steel door, perforated, 2-part	
	24		2 = 1200 mm		.SV = Steel door 1-part, 2 x Latch (= standard rear door)	
	18				.RW = Rear wall	
					.0D = unequipped cabinet frame with roof ("Open Rack")	
The first	nd cocc	and nocitions after the	o noint dofine the fron	t door the third and fourth no	ocition the rear door (respwall). For only one specification, front- and rea	or door are identical





Steel door perforated, 1-part Steel door perforated, 2-part

ArtNo.	Description	Width	Colour
PRO-TUR428G1.GR	Door 42U, Glass, 1-Part, Turning Handle	800 mm	RAL7035
PRO-TUR426G1.GR	Door 42U, Glass, 1-Part, Turning Handle	600 mm	RAL7035
PRO-TUR428S1.GR	Door 42U, Steel, 1-Part, Turning Handle	800 mm	RAL7035
PRO-TUR426S1.GR	Door 42U, Steel, 1-Part, Turning Handle	600 mm	RAL7035
PRO-TUR428SV.GR	Door 42U, Steel, 1-Part, 2 x Latch, Rear Door	800 mm	RAL7035
PRO-TUR426SV.GR	Door 42U, Steel, 1-Part, 2 x Latch, Rear Door	600 mm	RAL7035
PRO-TUR428S2.GR	Door 42U, Steel, 2-Part, Turning Handle	800 mm	RAL7035
PRO-TUR428P1.GR	Door 42U, Steel perf., 1-Part, Turning Handle	800 mm	RAL7035
PRO-TUR426P1.GR	Door 42U, Steel perf., 1-Part, Turning Handle	600 mm	RAL7035
PRO-TUR428P2.GR	Door 42U, Steel perf., 2-Part, Turning Handle	800 mm	RAL7035



Doors for Cabinets PRO

Doors for network and server cabinets PRO from 18U up to 47U, widths 600 and 800 mm

Glass doors with window made of certified safety glass (5 mm)

Perforated doors with perforation degree > 80 %

Turning handle with exchangeable profile half-cylinder acc. to DIN 18252 /

EN1303 (except of rear door with 2 x latch)

Doors larger 24U with 3-point bar-locking

Doors up to incl. 24U with 1-point latch locking

Door opening angle 180°

Material steel sheet

Paint finish (steel elements) RAL7035, light grey / RAL9005, jet black

Delivery incl. all hinges, screws, earthing cable, 2 x key

ArtNo.	Description	Width	Colour
PRO-TUR428G1.TS	Door 42U, Glass, 1-Part, Turning Handle	800 mm	RAL9005
PRO-TUR426G1.TS	Door 42U, Glass, 1-Part, Turning Handle	600 mm	RAL9005
PRO-TUR428S1.TS	Door 42U, Steel, 1-Part, Turning Handle	800 mm	RAL9005
PRO-TUR426S1.TS	Door 42U, Steel, 1-Part, Turning Handle	600 mm	RAL9005
PRO-TUR428SV.TS	Door 42U, Steel, 1-Part, 2 x Latch, Rear Door	800 mm	RAL9005
PRO-TUR426SV.TS	Door 42U, Steel, 1-Part, 2 x Latch, Rear Door	600 mm	RAL9005
PRO-TUR428S2.TS	Door 42U, Steel, 2-Part, Turning Handle	800 mm	RAL9005
PRO-TUR428P1.TS	Door 42U, Steel perf., 1-Part, Turning Handle	800 mm	RAL9005
PRO-TUR426P1.TS	Door 42U, Steel perf., 1-Part, Turning Handle	600 mm	RAL9005
PRO-TUR428P2.TS	Door 42U, Steel perf., 2-Part, Turning Handle	800 mm	RAL9005





Side wall for PRO 42U, D=800, RAL7035

Side wall for PRO 42U, D=1200, 2-part, RAL9005, 2 Parts, each corresponding to side wall 600 mm



Side Walls for PRO

Side walls for network and server cabinets PRO Available from 18U up to 47U in depths 600 up to 1200 mm Note: depth 1200 mm consisiting of 2 elements 600 mm each With 2 x latch locking (locking T3 / 1333) Also suitable as rear wall Material steel sheet

Paint finish RAL7035, light grey / RAL9005, jet black Scope of delivery: side wall, 1 x key, earthing cable

ArtNo.	Description	For Cabinet Depth	Colour
PRO-W426E.GR	Side Wall 42U, 1-Part	600 mm	RAL7035
PRO-W428E.GR	Side Wall 42U, 1-Part	800 mm	RAL7035
PRO-W420E.GR	Side Wall 42U, 1-Part	1000 mm	RAL7035
PRO-W422Z.GR	Side Wall 42U, 2-Part	1200 mm	RAL7035
PRO-W426E.TS	Side Wall 42U, 1-Part	600 mm	RAL9005
PRO-W428E.TS	Side Wall 42U, 1-Part	800 mm	RAL9005
PRO-W420E.TS	Side Wall 42U, 1-Part	1000 mm	RAL9005
PRO-W422Z.TS	Side Wall 42U, 2-Part	1200 mm	RAL9005

Prefix	Туре	U	Cabinet Depth	Туре	Colour
PRO-	W	42	8	E	.GR
	W = Wall	47	6 = 600 mm	E = 1-Part	.GR = RAL7035, light grey
		42	8 = 800 mm	Z = 2-Part	
		33	0 = 1000 mm	El = 1-Part, Opening Only From Inside	.TS = RAL9005, jet black
		24	2 = 1200 mm	EP = 1-Part, Perforated	
		18			

Side walls for cabinet depths 600 mm, 800 mm and 1000 mm consisting of one part. Side walls for cabinet depth 1200 mm consisting of 2 parts 600 mm each.















19" Server Cabinets PRO

19" server cabinet according to DIN41494

Steel sheet housing with screwed frame, completely pre-assembled, selfventilated, detachable

Inside front and rear 4 x 19"profiles (2 front, 2 rear-sided), galvanised, stepless depth-adjustable

Contrariwise numbering of rack units at the 19" profiles

Front and rear door with 3-point turning handle (up to 24U 1-point), lockable, incl. profile half-cylinder acc. to DIN18252 / EN 1303

Profile half-cylinder exchangeable by customer (30/10 mm)

Door stop for front and rear door possible left- or right-sided

Detachable side walls with 2 x latch locking (lock equal to the door lock) Cabinets stackable side-by-side with and without removal of the side walls, baying set (Art.-No. PRO-ANROX), otherwise screwable via screw set M6 Roof and bottom with 4/6 pre-punched openings for cable entry (450 x 90 mm), for 600 mm cabinet width cable entry only rear

Roof prepared for accommodation of 2-fan or 4-fan units, bottom with prepunched opening for filter or cable entry modules

Internal earthing of all cabinet sections

Pre-assembled earthing bar rear-sided in the middle of the cabinet (ports: $20 \times M5 + 2 \times 8 \text{ mm}$

Max. load 1000 kg (depths 600 / 800 mm) resp. 1360 kg (depths 1000 / 1200 mm for >24U)

Paint finish RAL9005, jet black

Protection degree IP20

Included accessories: 1 x brush, 1 x set of captive nuts (PU 20 pcs.), earthing bar and earthing cables, 4 x levelling feet M12, 2 x key

Delivery in transport packaging on disposable pallet



Roof with fan cutouts and surrounding cable entries



Cabinet bottom with pre-assembled earthing bar, surrounding cable entries and pre-punched opening A (380 x 380 mm)

ArtNo.	U	Width	Depth	Height	Front Door	Rear Door
PRO-2460TS.P1	24	600 mm	1000 mm	1163 mm	Steel perforated 1-part	Steel perforated 1-part
PRO-4260TS.P1	42	600 mm	1000 mm	1963 mm	Steel perforated 1-part	Steel perforated 1-part
PRO-4262TS.P1	42	600 mm	1200 mm	1963 mm	Steel perforated 1-part	Steel perforated 1-part
PRO-4288TS.P1	42	800 mm	800 mm	1963 mm	Steel perforated 1-part	Steel perforated 1-part
PRO-4288TS.P2	42	800 mm	800 mm	1963 mm	Steel perforated 2-part	Steel perforated 2-part
PRO-4280TS.P1	42	800 mm	1000 mm	1963 mm	Steel perforated 1-part	Steel perforated 1-part
PRO-4280TS.P1P2	42	800 mm	1000 mm	1963 mm	Steel perforated 1-part	Steel perforated 2-part
PRO-4280TS.P2	42	800 mm	1000 mm	1963 mm	Steel perforated 2-part	Steel perforated 2-part
PRO-4282TS.P1	42	800 mm	1200 mm	1963 mm	Steel perforated 1-part	Steel perforated 1-part
PRO-4282TS.P1P2	42	800 mm	1200 mm	1963 mm	Steel perforated 1-part	Steel perforated 2-part
PRO-4282TS.P2	42	800 mm	1200 mm	1963 mm	Steel perforated 2-part	Steel perforated 2-part
PRO-4780TS.P1	47	800 mm	1000 mm	2186 mm	Steel perforated 1-part	Steel perforated 1-part
PRO-4780TS.P1P2	47	800 mm	1000 mm	2186 mm	Steel perforated 1-part	Steel perforated 2-part
PRO-4780TS.P2	47	800 mm	1000 mm	2186 mm	Steel perforated 2-part	Steel perforated 2-part
PRO-4782TS.P1	47	800 mm	1200 mm	2186 mm	Steel perforated 1-part	Steel perforated 1-part
PRO-4782TS.P1P2	47	800 mm	1200 mm	2186 mm	Steel perforated 1-part	Steel perforated 2-part
PRO-4782TS.P2	47	800 mm	1200 mm	2186 mm	Steel perforated 2-part	Steel perforated 2-part







Lateral cable ducts optionally from top or bottom side possible.











19" Co-Location Racks PRO

19" network cabinet according to DIN 41494

Steel sheet housing with screwed frame, completely pre-assembled, self-ventilated

1, 2, 3 or 4 boxes for individual access

Every box with independent cable ducts left and right for cable entry from top or bottom $\,$

Inside front and rear $4\times19^{\circ}$ profiles per box (2 front, 2 rear), galvanised, step-less depth-adjustable

Numbering of height units at the profiles

Front- and rear doors steel, perforated, 1-part

Doors with 1-point turning handle, lockable, incl. profile half-cylinder acc. to DIN 18252 / EN 1303

Profile half-cylinder exchangeable by customer (30/10 mm)

Door stop left and right-sided possible

Detachable side walls with 2 x latch locking (lock equal to door lock)

Side walls optional available perforated

Cabinets stackable side-by-side with and without side wall via baying set $\mbox{PRO-ANR01}$

Roof and bottom with covered cutouts for cable entry (left/right) and for accommodation of fan unit PRO-LFD02BO.xx

Intermediate bottoms sealed to side walls

Internal earthing of all cabinet parts

Max. load 600 kg

Paint finish RAL7035, light grey / RAL9005, jet black

Protection degree IP20

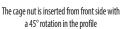
Included accessories: 1 x set of captive nuts (PU 20 pcs.),

4 x Leveling feet M12, 2 x key

Delivery in transport packaging on disposable pallet

ArtNo.	U	Width	Depth	Height	Front Door	Rear Door
PRO-CL1-4280TS.P1	1 x 42	800 mm	1000 mm	1963 mm	Steel perforated 1-part	Steel perforated 1-part
PRO-CL2-4280TS.P1	2 x 20	800 mm	1000 mm	1963 mm	Steel perforated 1-part	Steel perforated 1-part
PRO-CL2-4280TS.P2	2 x 20	800 mm	1000 mm	1963 mm	Steel perforated 1-part	Steel perforated 1-part
PRO-CL3-4280TS.P1	3 x 13	800 mm	1000 mm	1963 mm	Steel perforated 1-part	Steel perforated 1-part
PRO-CL4-4280TS.P1	4 x 9	800 mm	1000 mm	1963 mm	Steel perforated 1-part	Steel perforated 1-part
PRO-CL4-4288TS.P1	4 x 9	800 mm	800 mm	1963 mm	Steel perforated 1-part	Steel perforated 1-part
PRO-CL2-4288TS.P1	2 x 20	800 mm	800 mm	1963 mm	Steel perforated 1-part	Steel perforated 1-part
PRO-CL1-4288TS.P1	1 x 42	800 mm	800 mm	1963 mm	Steel perforated 1-part	Steel perforated 1-part







Set of Captive Nuts, 50 x M6 for Front Mounting

For front-sided mounting into the 19" profile Easy and fast - no more wounded fingers!

Set of 50 x screw M6 x 20 mm, washer and cage nut Material steel, nylon

ArtNo.	Description
691102	Set of Captive Nuts, 50 x M6 for Front Mounting
691104	Set of Captive Nuts, 50 x M6 Torx for Front Mounting



Line-Up Connectors, 4 Pcs. in Set

Connection set for connection of cabinets PRO at the lateral openings in roof and bottom

Usable with and without side walls

Also suitable for connection of server cabinets e.g. with side coolers or In-

1 set suitable for connection of 2 cabinets

Scope of delivery: 4 x screw M8, 4 x nut M8, 8 x washer

ArtNo.	Description
PRO-ANR01	Line-Up Connector for PRO, Set of 4 Pcs.





For this purpose, the walls must be ordered and manufactured with a hole or provided with a hole on site - please contact us!

Line-Up Clamping Connector Set

Clamp connector for raising the stability of lined-up cabinets PRO Recommended for load over 400 kg Suitable for use with and without side walls Scope of delivery: 1 set consisting of 4 x clamp connector

ArtNo.	Description
PRO-ANRO2	Line-Up Clamping Connector for PRO, Set of 4 Pcs.





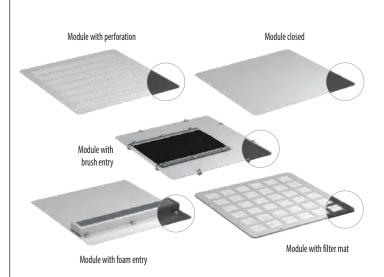


Additional Roof with Cable Entries for PRO

For aesthetic supplement and covering of roof ventilation openings of the

Cable entries rear-sided resp. lateral (see sketch) Material steel sheet, height 40 mm Paint finish RAL7035, light grey / RAL9005, jet black

ArtNo.	Description	Width	Depth	Colour
PRO-DCH66B.GR	Additional Roof H=40 mm	600 mm	600 mm	RAL7035
PRO-DCH68B.GR	Additional Roof H=40 mm	600 mm	800 mm	RAL7035
PRO-DCH60B.GR	Additional Roof H=40 mm	600 mm	1000 mm	RAL7035
PRO-DCH62B.GR	Additional Roof H=40 mm	600 mm	1200 mm	RAL7035
PRO-DCH86B.GR	Additional Roof H=40 mm	800 mm	600 mm	RAL7035
PRO-DCH88B.GR	Additional Roof H=40 mm	800 mm	800 mm	RAL7035
PRO-DCH80B.GR	Additional Roof H=40 mm	800 mm	1000 mm	RAL7035
PRO-DCH82B.GR	Additional Roof H=40 mm	800 mm	1200 mm	RAL7035
PRO-DCH66B.TS	Additional Roof H=40 mm	600 mm	600 mm	RAL9005
PRO-DCH68B.TS	Additional Roof H=40 mm	600 mm	800 mm	RAL9005
PRO-DCH60B.TS	Additional Roof H=40 mm	600 mm	1000 mm	RAL9005
PRO-DCH62B.TS	Additional Roof H=40 mm	600 mm	1200 mm	RAL9005
PRO-DCH86B.TS	Additional Roof H=40 mm	800 mm	600 mm	RAL9005
PRO-DCH88B.TS	Additional Roof H=40 mm	800 mm	800 mm	RAL9005
PRO-DCH80B.TS	Additional Roof H=40 mm	800 mm	1000 mm	RAL9005
PRO-DCH82B.TS	Additional Roof H=40 mm	800 mm	1200 mm	RAL9005







Bottom Modules for PRO

Module inserts for cabinet bottom in cabinets PRO Suitable for opening 380 x 380 mm (type A, see sketch) Various variants available:

Closed, perforated, with filter mat, with brush, with foam, with filter and

Material steel sheet

Paint finish RAL7035, light grey / RAL9005, jet black Delivery incl. mounting material

ArtNo.	Description	Colour
PRO-MOD01A.GR	Module, Closed	RAL7035
PRO-MODO2A.GR	Module with Perforation	RAL7035
PRO-MODO3A.GR	Module with Filter Mat	RAL7035
PRO-MOD04A.GR	Module with Brush Entry	RAL7035
PRO-MOD05A.GR	Module with Foam Entry	RAL7035
PRO-MODO1A.TS	Module, Closed	RAL9005
PRO-MODO2A.TS	Module with Perforation	RAL9005
PRO-MODO3A.TS	Module with Filter Mat	RAL9005
PRO-MOD04A.TS	Module with Brush Entry	RAL9005
PRO-MODO5A.TS	Module with Foam Entry	RAL9005







Plinth 100 mm for Cabinets PRO

Consisting of 4 very solid, levelable plinth corners and 4 covers Front cover perforated, rear cover with cable entry via brush Side covers closed Material steel sheet Paint finish RAL7035, light grey / RAL9005, jet black Delivery unassembled, incl. mounting material

ArtNo.	Description	For Cabinet Width	For Cabinet Depth	Colour
PRO-SOK66PB.GR	Plinth H=100 mm	600 mm	600 mm	RAL7035
PRO-SOK68PB.GR	Plinth H=100 mm	600 mm	800 mm	RAL7035
PRO-SOK60PB.GR	Plinth H=100 mm	600 mm	1000 mm	RAL7035
PRO-SOK62PB.GR	Plinth H=100 mm	600 mm	1200 mm	RAL7035
PRO-SOK86PB.GR	Plinth H=100 mm	800 mm	600 mm	RAL7035
PRO-SOK88PB.GR	Plinth H=100 mm	800 mm	800 mm	RAL7035
PRO-SOK80PB.GR	Plinth H=100 mm	800 mm	1000 mm	RAL7035
PRO-SOK82PB.GR	Plinth H=100 mm	800 mm	1200 mm	RAL7035
PRO-SOK66PB.TS	Plinth H=100 mm	600 mm	600 mm	RAL9005
PRO-SOK68PB.TS	Plinth H=100 mm	600 mm	800 mm	RAL9005
PRO-SOK60PB.TS	Plinth H=100 mm	600 mm	1000 mm	RAL9005
PRO-SOK62PB.TS	Plinth H=100 mm	600 mm	1200 mm	RAL9005
PRO-SOK86PB.TS	Plinth H=100 mm	800 mm	600 mm	RAL9005
PRO-SOK88PB.TS	Plinth H=100 mm	800 mm	800 mm	RAL9005
PRO-SOK80PB.TS	Plinth H=100 mm	800 mm	1000 mm	RAL9005
PRO-SOK82PB.TS	Plinth H=100 mm	800 mm	1200 mm	RAL9005







Plinth 100 mm, Perforated, for Cabinets PRO

Consisting of 4 very solid, levelable plinth corners and 4 covers Front and rear cover perforated Side covers closed Material steel sheet Paint finish RAL7035, light grey / RAL9005, jet black Delivery unassembled, incl. mounting material

ArtNo.	Description	For Cabinet Width	For Cabinet Depth	Colour
PRO-SOK88PP.GR	Plinth H=100 mm, Perforated	800 mm	800 mm	RAL7035
PRO-SOK88PP.TS	Plinth H=100 mm, Perforated	800 mm	800 mm	RAL9005







Tilt Protection, Slideable

Tilt protection for plinths of cabinet series PRO
Consisting of extendable support frame and two guide rails
Suitable for plinth heights 100 mm and 200 mm
Material steel sheet
Paint finish RAL7035, light grey / RAL9005, jet black

railit illisii NAL7033, light gley / NAL9003, jet black
Included in delivery: 1 x tilt protection incl. mounting accessories

ArtNo.	Description	For Cabinet Width	For Cabinet Depth	Colour
PRO-KIS60.GR	Tilt Protection, Slideable for PRO	600 mm	1000 mm	RAL7035
PRO-KIS80.GR	Tilt Protection, Slideable for PRO	800 mm	1000 mm	RAL7035
PRO-KIS60.TS	Tilt Protection, Slideable for PRO	600 mm	1000 mm	RAL9005
PRO-KIS80.TS	Tilt Protection, Slideable for PRO	800 mm	1000 mm	RAL9005







Plinth corner height 200 mm, levelable



Plinth corner height 100 mm, fixed height



Plinth corner height 200 mm, fixed height

|--|

4 Plinth Corners PRO

Set of 4 very stable plinth corners
Plinth height 100 mm / 200 mm, levelable or fix
Suitable for individual assembly with plinth covers PRO-SOBxx
Fixed variante suitable for screwing at the floor and for use with vibration dampers PRO-VIB01
Material steel sheet
Paint finish RAL7035, light grey / RAL9005, jet black

ArtNo.	Description	Colour
PRO-SOE100N.GR	4 Plinth Corners, Levelable, H=100 mm	RAL7035
PRO-SOE100N.TS	4 Plinth Corners, Levelable, H=100 mm	RAL9005
PRO-SOE200N.GR	4 Plinth Corners, Levelable, H=200 mm	RAL7035
PRO-SOE200N.TS	4 Plinth Corners, Levelable, H=200 mm	RAL9005
PRO-SOE100F.GR	4 Plinth Corners, Fixed, H=100 mm	RAL7035
PRO-SOE100F.TS	4 Plinth Corners, Fixed, H=100 mm	RAL9005
PRO-SOE200F.GR	4 Plinth Corners, Fixed, H=200 mm	RAL7035
PRO-SOE200F.TS	4 Plinth Corners, Fixed, H=200 mm	RAL9005



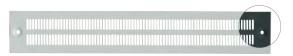


Plinth Cover PRO, with Brush

Covers for combination with plinth corners PRO-SOExx Suitable for use at all 4 corners of the plinth (front/rear/left/right) Material steel sheet

Scope of delivery: 1 cover incl. mounting accessories

ArtNo.	Description	For Cabinet Width	For Cabinet Depth	Colour
PRO-SOB06B.GR	Plinth Cover for PRO, with Brush	600 mm	600 mm	RAL7035
PRO-SOB08B.GR	Plinth Cover for PRO, with Brush	800 mm	800 mm	RAL7035
PRO-SOB10B.GR	Plinth Cover for PRO, with Brush	1000 mm	1000 mm	RAL7035
PRO-SOB12B.GR	Plinth Cover for PRO, with Brush	1200 mm	1200 mm	RAL7035
PRO-SOB06B.TS	Plinth Cover for PRO, with Brush	600 mm	600 mm	RAL9005
PRO-SOB08B.TS	Plinth Cover for PRO, with Brush	800 mm	800 mm	RAL9005
PRO-SOB10B.TS	Plinth Cover for PRO, with Brush	1000 mm	1000 mm	RAL9005
PRO-SOB12B.TS	Plinth Cover for PRO, with Brush	1200 mm	1200 mm	RAL9005





Plinth Cover PRO, Perforated

Covers for combination with plinth corners PRO-SOExx Suitable for use at all 4 corners of the plinth (front/rear/left/right) Material steel sheet

Scope of delivery: 1 cover incl. mounting accessories

ArtNo.	Description	For Cabinet Width	For Cabinet Depth	Colour
PRO-SOB06P.GR	Plinth Cover for PRO, Perforated	600 mm	600 mm	RAL7035
PRO-SOB08P.GR	Plinth Cover for PRO, Perforated	800 mm	800 mm	RAL7035
PRO-SOB10P.GR	Plinth Cover for PRO, Perforated	1000 mm	1000 mm	RAL7035
PRO-SOB12P.GR	Plinth Cover for PRO, Perforated	1200 mm	1200 mm	RAL7035
PRO-SOBO6P.TS	Plinth Cover for PRO, Perforated	600 mm	600 mm	RAL9005
PRO-SOBO8P.TS	Plinth Cover for PRO, Perforated	800 mm	800 mm	RAL9005
PRO-SOB10P.TS	Plinth Cover for PRO, Perforated	1000 mm	1000 mm	RAL9005
PRO-SOB12P.TS	Plinth Cover for PRO, Perforated	1200 mm	1200 mm	RAL9005



Plinth Cover PRO, Full

Covers for combination with plinth corners PRO-SOExx Suitable for use at all 4 corners of the plinth (front/rear/left/right) Material steel sheet

Scope of delivery: 1 cover incl. mounting accessories

ArtNo.	Description	For Cabinet Width	For Cabinet Depth	Colour
PRO-SOB06V.GR	Plinth Cover for PRO, Full	600 mm	600 mm	RAL7035
PRO-SOB08V.GR	Plinth Cover for PRO, Full	800 mm	800 mm	RAL7035
PRO-SOB10V.GR	Plinth Cover for PRO, Full	1000 mm	1000 mm	RAL7035
PRO-SOB12V.GR	Plinth Cover for PRO, Full	1200 mm	1200 mm	RAL7035
PRO-SOB06V.TS	Plinth Cover for PRO, Full	600 mm	600 mm	RAL9005
PRO-SOB08V.TS	Plinth Cover for PRO, Full	800 mm	800 mm	RAL9005
PRO-SOB10V.TS	Plinth Cover for PRO, Full	1000 mm	1000 mm	RAL9005
PRO-SOB12V.TS	Plinth Cover for PRO, Full	1200 mm	1200 mm	RAL9005





Application example

Vibration Damper for PRO

Vibration damper for use under the plinths of cabinet series PRO Additional screwing of the plinth corners an the floor is recommended Suitable for use with plinths corners PRO-SOE100F.xx and PRO-SOE200F.xx Material rubber

Included in delivery 4 x vibration damper

ArtNo.	De	escription
PRO-VIB01	Vil	bration Damper, Set 4 Pieces





Castor Set for PRO, Max. Load 400 kg

Castor set for cabinet series PRO
Max. load 400 kg, height 108 mm
Scopy of delivery 2 x castor without brake, 2 x castor with brake, mounting

ArtNo.	Description
PRO-ROL01	Castor Set for PRO, max. Load 400 kg



across the cabinet bottom



Castor Set for PRO, Max. Load 600 kg

Castor set for cabinet series PRO Mounting of support rails across below the cabinet Max. load 600 kg Total height 160 mm (support rails 31 mm + castors 129 mm)

Scope of delivery 2 x castor without brake, 2 x castor with brake, 2 x support rail, mounting accessories

ArtNo.	Description	Width	Colour
PRO-ROL026.GR	Castor Set for PRO, max. Load 600 kg	600 mm	RAL7035
PRO-ROL028.GR	Castor Set for PRO, max. Load 600 kg	800 mm	RAL7035



Leveling Feet M12x40, Set 4 Pieces

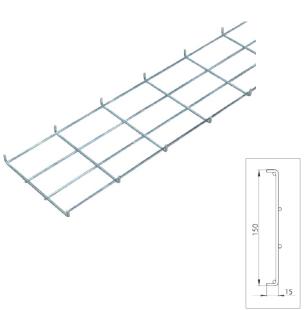
Height adjustable 25 .. 35 mm Thread M12 x 40, incl. locknuts Adjustment possible by 19 mm wrench and Allen key 5 mm

ArtNo.	Description
PRO-NIV01	Leveling Feet M12, Set of 4 Pieces

NEED SUPPORT?

DATA SHEETS & MANUALS YOU'LL FIND IN OUR ONLINE SHOP!





Vertical Cable Tray, Mesh

For vertical cable routing in the cabinet Mounting at the lateral depth rails

Note: for 600 mm cabinet width the cable tray fits in the space between depth rail and side wall

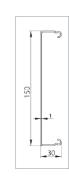
Other U-types available on request

Material steel sheet, galvanised

Scope of delivery: 1 x cable tray incl. mounting accessories

ArtNo.	Description	For Cabinet Height
PRO-KRI42G	Vertical Cable Tray for PRO, Mesh	40 - 42 U
PRO-KRI47G	Vertical Cable Tray for PRO, Mesh	45 - 47 U





Vertical Cable Tray, Steel Sheet

For vertical cable routing in the cabinet Mounting at the lateral depth rails

Note: for 600 mm cabinet width only mountable at the inner side of the depth rail (fits not between depth rail and side wall)

Other U-variants available on request

Material steel sheet, galvanised

Scope of delivery: 1 x cable tray incl. mounting accessories

ArtNo.	Description	For Cabinet Height
PRO-KRI42B	Vertical Cable Tray for PRO, Steel Sheet	40 - 42 U
PRO-KRI47B	Vertical Cable Tray for PRO, Steel Sheet	45 - 47 U







Application example (Delivery without cabinet)

Swing Frame for PRO, Asymmetric

19" swing frame for mounting in 800 mm wide cabinets PRO Usable height 40U

Max. mounting depth 440 mm due to asymmetrical construction With door fixing and locking with 2 x latch

Frame stop left and right possible due to turn around 180° Opening angle max. 120°

Max. load 150 kg

Material Steel sheet, steel profiles Paint finish RAL7035, light grey

ArtNo.	Description	For Cabinet Height	Colour
PRO-SWR428A.GR	Swing Frame for PRO	42U	RAL7035





19" Mounting Plate for 42U

Base plate for mounting of various devices in the cabinet Mounting at the 19" level Material steel sheet aluzinc, thickness 3 mm Delivery incl. mounting material

ArtNo.	Description	For Cabinet Height	Colour
PRO-MOP428	Mounting Plate for PRO	42U	RAL7035







Application example (Delivery without rack)



PDU Holder for PRO, Set 2 Pieces

For vertical mounting of socket strips (PDU) lateral at 19" profiles and racks Only for cabinet depth 800 $\,\mathrm{mm}$

Available in variants 1-way (for 1 PDU) and 2-way (for 2 PDU beside eachother) Material steel sheet

Paint finish RAL7035, light grey / RAL9005, jet black Scope of delivery 2 x PDU holder incl. mounting material

ArtNo.	Description	Colour
PRO-PDU01.GR	PDU Holder 1-Way für PRO, Set of 2	RAL7035
PRO-PDU01.TS	PDU Holder 1-Way für PRO, Set of 2	RAL9005
PRO-PDU02.TS	PDU Holder 2-Way für PRO, Set of 2	RAL9005





Application example (Delivery without cabinet)

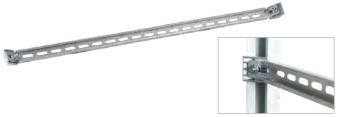
PDU Carrier 42U, for PRO

For vertical mounting of socket strips (PDU) in cabinets PRO in width 800 mm Material steel sheet $\,$

Paint finish RAL7035, light grey / RAL9005, jet black Scope of delivery 1 x PDU carrier incl. mounting material Other U on request

ArtNo.	Description	For Cabinet Height	Colour
PRO-PDU03.GR	PDU Carrier for PRO	42U	RAL7035
PRO-PDU03.TS	PDU Carrier for PRO	42U	RAL9005





Mounting with clamp connector directly at the cabinet pole in any number & height

C Profile Rail for Cable Clamping, for PRO

For vertical cable routing in cabinet series PRO

Mounting possible in any number and height between the poles of the cabinet frame

Slot with 16 mm for bracket clamps

Material steel

Scope of delivery: 1 x profile rail incl. mounting material

ArtNo.	Description	For Cabinet Depth
PRO-CPR06	C Profile Rail for Cable Clamping	600 mm
PRO-CPR08	C Profile Rail for Cable Clamping	800 mm
PRO-CPR10	C Profile Rail for Cable Clamping	1000 mm
PRO-CPR12	C Profile Rail for Cable Clamping	1200 mm





Mounting with clamp connector directly at the cabinet pole in any number & height

Multi Function Rail Horizontal, for PRO

Multi function rail for mounting between the cabinet poles of series PRO For universal mounting of accessories, cable routing etc.

Positioning in any height possible Material steel

Delivery 1 x rail incl. mounting material

ArtNo.	Description	For Cabinet Depth
PRO-MFH06	Multi Function Rail, Horizontal	600 mm
PRO-MFH08	Multi Function Rail, Horizontal	800 mm
PRO-MFH10	Multi Function Rail, Horizontal	1000 mm
PRO-MFH12	Multi Function Rail, Horizontal	1200 mm



Depth Rails Set, 2 Pieces

For mounting of profile rails, ducts or cable trays in cabinet series PRO Also suitable for mounting in cabinet width (at all four cabinet sides) Material steel / aluzinc diecast

Included in delivery: 2 x depth rails incl. mounting accessories

ArtNo.	Description	For Cabinet Depth
PRO-TST06	Depth Rails Set, 2 Pieces	600 mm
PRO-TST08	Depth Rails Set, 2 Pieces	800 mm
PRO-TST10	Depth Rails Set, 2 Pieces	1000 mm
PRO-TST12	Depth Rails Set, 2 Pieces	1200 mm



Cantilever Set, 4/8 Pieces

For mounting of the 19" or 21" (ETSI) profile rails in cabinets width 800 mm For each profile 2 outriggers are necessary

Material aluzinc diecast

Delivery incl. mounting accessories

ArtNo.	Description
PRO-AUS01	Cantilever Set for 19", 4 Pieces, for PRO
PRO-AUS02	Cantiliver Set for 21"/ETSI, 8 Pieces, for PRO



Profiles with ETSI grid perforation available on request and in the EFB-Webshop

19" Profile Rail for Cabinet Series PRO, Set 2 Pieces

For Retrofitting in network and server cabinets PRO Double-contrariwise numbering of the rack units For cabinet width 800 mm outriggers are necessary for mounting Material steel, galvanised

ArtNo.	Description	U
PRO-PRO47	19" Profile Rail for PRO, Set 2 Pieces	47
PRO-PRO42	19" Profile Rail for PRO, Set 2 Pieces	42
PRO-PRO33	19" Profile Rail for PRO, Set 2 Pieces	33
PRO-PRO24	19" Profile Rail for PRO, Set 2 Pieces	24
PRO-PRO18	19" Profile Rail for PRO, Set 2 Pieces	18



Middle Profiles for PRO, Set of 2 Pieces

Vertical middle profile for support of heavy devices Mounting between the front and rear 19" level Material steel, galvanised

ArtNo.	Description	U
PRO-MPR47	Middle Profiles for PRO, Set of 2 Pieces	47 U
PRO-MPR42	Middle Profiles for PRO, Set of 2 Pieces	42 U
PRO-MPR33	Middle Profiles for PRO, Set of 2 Pieces	33 U
PRO-MPR24	Middle Profiles for PRO, Set of 2 Pieces	24 U







19" Rack Frame, Step-Less Adjustable

For vertical cable routing in network and server cabinets PRO Mounting at the horizontal depth rails left- and right-sided in cabinet Note: for mounting it can be necessary to adjust the profile depth in the cabinet

Incl. removable front cover with quick fastener Material steel sheet

Scope of delivery: 1 x vertical cable manager incl. mounting accessories

ArtNo.	Description	For Cabinet Height	Colour
PRO-VKM42.GR	Vertical Cable Management, 1 Piece	42 U	RAL7035
PRO-VKM47.GR	Vertical Cable Management, 1 Piece	47 U	RAL7035
PRO-VKM42.TS	Vertical Cable Management, 1 Piece	42 U	RAL9005
PRO-VKM47.TS	Vertical Cable Management, 1 Piece	47 U	RAL9005







19" Rack Frame, Step-Less Adjustable

Open rack frame for mounting of 19" components

Accessibility from all sides for exhibition purposes, laboratory setups and IT installations

Stable construction, easy assembly

Mounting depth between 19" levels step-less adjustable from 130 .. 695 mm Max. load 150 kg $\,$

Material aluminum profiles (base), steel (19" poles)

Paint finish steel parts RAL7035, light grey

Optional castor set PRO-ROL01 please order separately on demand

Variant with max. load 250 kg and mounting depth 711 mm available on request $\,$

ArtNo.	Description	U
691631GR.24	19" Rack Frame	24
691631GR.42	19" Rack Frame	42





Side Cover for Cabinet Series PRO, Width 800 mm

Side cover for cabinets PRO in width 800 mm For mounting at the lateral depth rails Material Steel sheet Paint finish RAL7035, light grey / RAL9005, jet black

ArtNo.	Description	U	Colour
PRO-SIB42.GR	Side Cover for PRO, W=800, 2 Pcs.	42	RAL7035
PRO-SIB47.GR	Side Cover for PRO, W=800, 2 Pcs.	47	RAL7035
PRO-SIB42.TS	Side Cover for PRO, W=800, 2 Pcs.	42	RAL9005
PRO-SIB47.TS	Side Cover for PRO, W=800, 2 Pcs.	47	RAL9005

FURTHER ACCESSORIES & COMPONENTS FOR CABINET SERIES PRO YOU'LL FIND IN OUR ONLINE-SHOP





19" 4U Mini Network Frame

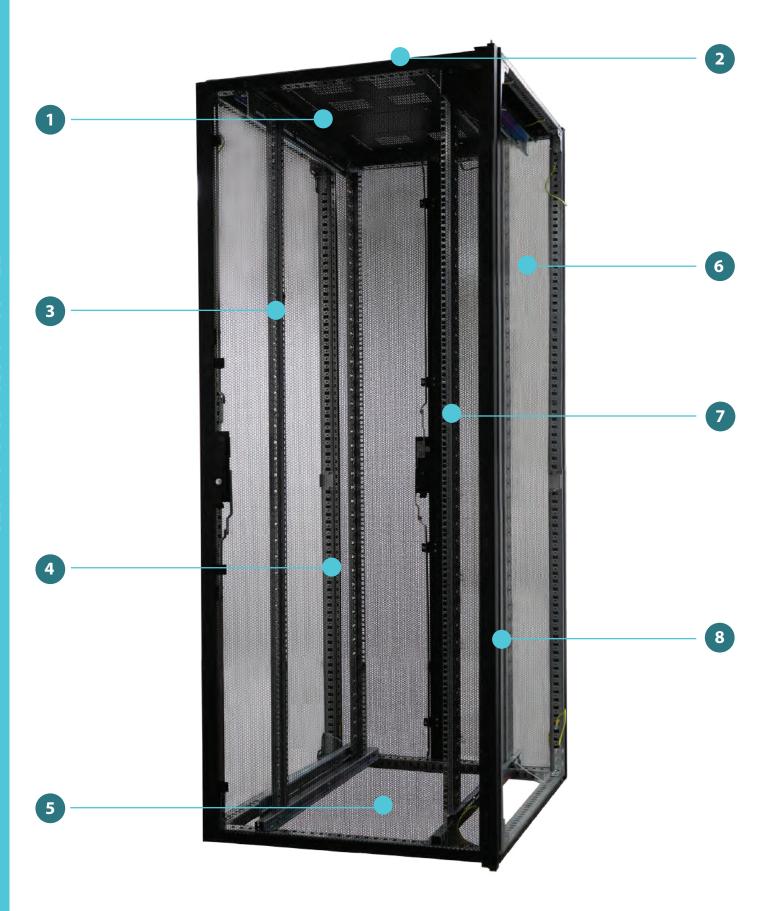
The mini network frame is the ideal component for accommodating 19" components in smaller networking solutions

Sturdy sheet steel frame, non-slip Dimensions: (W x H x D) 490 x 230 x 295 mm

ArtNo.	Description
699996	19" 4U Mini Network Frame, RAL7035

THE EFB-SERVER

PREMIUM SERVER CABINETS FOR DATA CENTRES



ROBUST, UNIVERSAL & WITH TOOL-LESS MOUNTING OPTIONS

1 TOOL-LESS MOUNTING of roof and further accessories

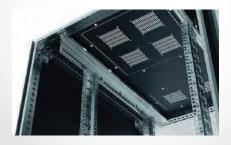




2 CABLE ENTRY in roof over complete cabinet depth



- 3 STEP-LESS
 DEPTH-ADJUSTMENT
 of the 19" levels incl. mm scaling
 - 19" level changeable to ETSI/21" in standard



- 5 HIGH MAX. LOAD OF 1500 KG (optionally higher max. load possible)
- 5 DIFFERENT SIDE WALL VARIANTS AVAILABLE
 - Horizontally divided for easy mounting access and door opening 270°
 - Lateral socket strips possible also for 600 mm cabinet depth
 - Partitions / Separations for use with or without leveling feet, between or in the cabinet frame
 - Partitions / Separations can be retrofit everytime



- 7 COMPONENTS FOR AIR ROUTING
 - Vertical & horizontal air routing possible



PROFILE FRAME with all-side surrounding grid perforation, completely dismountable



- **8** DOORS WITH HIGH SECURITY
 - 1-Part doors with 5-point locking
 - 2-Part doors with 3-point locking
 - 80 % degree of perforation /86 % perforated area

















19" server cabinet according to DIN41494

Steel sheet housing with screwed profile frame, completely pre-assembled, dismountable Inside front and rear 4 x 19" profile rails (2 front, 2 rear), galvanised, depth-adjustable step-less and tool-less Scaling for depth-adjustment at the profile carrying rails Contrariwise numbering of rack units at the 19" profiles

Front- and rear door steel, perforated, 1-part or 2-part, perforation degree > 80 %, perforation area up to 86 % 1-part door with 5-point locking and turning handle, lockable, incl. profile half-cylinder acc. to DIN18252 / EN1303, door stop right or left-sided possible

2-part door with 3-point bar locking and turning handle, lockable, incl. profile half-cylinder acc. to DIN18252 / EN1303 Profile half-cylinder exchangeable by customer (30/10 mm) Door opening angle up to 270°

Delivery without side walls, side walls available in various variants A / B / C / D / E: Detailed information about wall variants you'll find in article description "side walls" Cabinets stackable side-by-side with stacking set Art.-No. ESV-ANR01 Partitions / separations are retrofitable onto already lined-up cabinets

Roof mountable tool-less, with pre-punched ventilation openings for use of up to 2 fan units (2-fan or 4-fan type) Roof with cable entries over full cabinet length after removal of the pre-punched lateral covers

Delivery without bottom (bottom sets optional)
Max. load 1500 kg, optional possible higher

All cabinet parts inside completely grounded
Paint finish RAL7035, light grey / RAL9005, jet black

Protection degree IP20 (except bottom area)

Scope of supply: 1 x set of captive nuts (PU 20 pcs), 4 x leveling feet M12, 2 x key

Delivery in transport packaging on disposable pallet



The 19" profiles and many further components are tool-less adjustable



The extremely solid profile frame with surrounding grid perforation also allows conversion to metric installation dimension (ETSI / 21")

ArtNo.	U	Width	Depth	Height	Front Door	Rear Door	Colour
ESV-4260TS.P10S	42	600 mm	1000 mm	2000 mm	Steel perforated 1-part	Steel perforated 1-part	RAL9005
ESV-4260TS.P1P20S	42	600 mm	1000 mm	2000 mm	Steel perforated 1-part	Steel perforated 2-part	RAL9005
ESV-4262TS.P10S	47	600 mm	1200 mm	2000 mm	Steel perforated 1-part	Steel perforated 1-part	RAL9005
ESV-4262TS.P1P20S	42	600 mm	1200 mm	2000 mm	Steel perforated 1-part	Steel perforated 2-part	RAL9005
ESV-4280TS.P10S	42	800 mm	1000 mm	2000 mm	Steel perforated 1-part	Steel perforated 1-part	RAL9005
ESV-4280TS.P1P20S	42	800 mm	1000 mm	2000 mm	Steel perforated 1-part	Steel perforated 2-part	RAL9005
ESV-4282TS.P10S	42	800 mm	1200 mm	2000 mm	Steel perforated 1-part	Steel perforated 1-part	RAL9005
ESV-4282TS.P1P20S	42	800 mm	1200 mm	2000 mm	Steel perforated 1-part	Steel perforated 2-part	RAL9005
ESV-4760TS.P10S	47	600 mm	1000 mm	2200 mm	Steel perforated 1-part	Steel perforated 1-part	RAL9005
ESV-4760TS.P1P20S	47	600 mm	1000 mm	2200 mm	Steel perforated 1-part	Steel perforated 2-part	RAL9005
ESV-4762TS.P10S	42	600 mm	1200 mm	2200 mm	Steel perforated 1-part	Steel perforated 1-part	RAL9005
ESV-4762TS.P1P20S	47	600 mm	1200 mm	2200 mm	Steel perforated 1-part	Steel perforated 2-part	RAL9005
ESV-4780TS.P10S	47	800 mm	1000 mm	2200 mm	Steel perforated 1-part	Steel perforated 1-part	RAL9005
ESV-4780TS.P1P20S	47	800 mm	1000 mm	2200 mm	Steel perforated 1-part	Steel perforated 2-part	RAL9005
ESV-4782TS.P10S	47	800 mm	1200 mm	2200 mm	Steel perforated 1-part	Steel perforated 1-part	RAL9005
ESV-4782TS.P1P2OS	47	800 mm	1200 mm	2200 mm	Steel perforated 1-part	Steel perforated 2-part	RAL9005

Prefix	U	Cabinet Width	Cabinet Depth	Colour	Door Assembly	Options	
ESV-	42	8	0	GR	.P1P2	OS = Without Side Walls	
	47	6 = 600 mm	0 = 1000 mm	TS = RAL9005, Jet Black	.P1 = Steel Door, Perforated, 1-Part		
	42	8 = 800 mm	2 = 1200 mm	GR = RAL7035, Light Grey	.P2 = Steel Door, Perforated, 2-Part		
The first	The first and second digit after the point define the front door third and fourth define the rear door. For only one type, front and rear door are identically						



Side and Partition / Separation Walls for EFB-Server, Type A-B-C-D-E

Side walls resp. partitions / separations for server cabinets EFB-Server are available in 5 variants:

Side wall type A:

- horizontally divided
- enables door opening angle of 270°
- Cabinet width increases by 3 mm per side
- not suitable for use with line-up connectors

Side wall type B:

- horizontally divided
- enables the mounting of PDUs lateral of the 19" profiles for cabinet width 600 mm
- cabinet width increases by 3 mm per side
- not suitable for use with line-up connectors

Partition/separation typ C/D:

- 1-part partition for mounting between lined-up cabinets
- suitable for use with line-up connectors ESV-ANR01
- with 4 pre-punched cable openings 150 x 45 mm and 4 cutouts for line-up connectors
- front and bottom bends for easy installation
- necessary cabinet distance only 2 mm

Partition/separation type C: for use at cabinets with leveling feet
Partition/separation type D: for use at cabinets without leveling feet
Partition/separation type E:

- for mounting inside of the cabinet frame
- suitable for use with line-up connectors ESV-ANR02

Material steel sheet

Paint finish RAL7035, light grey / RAL9005, jet black

Scope of delivery: 1 x side wall/partition/separation incl. mounting acessories



ArtNo.	Description	U	For Cabinet Depth	Туре	Colour
ESV-W420A.GR	Side Wall for EFB-Server	42	1000	Door opening 270°	RAL7035
ESV-W420B.GR	Side Wall for EFB-Server	42	1000	PDU in W=600 mm	RAL7035
ESV-W420C.GR	Partition / Separation for EFB-Server	42	1000	Partition / Separation with feet	RAL7035
ESV-W420D.GR	Partition / Separation for EFB-Server	42	1000	Partition / Separation w/o feet	RAL7035
ESV-W422A.GR	Side Wall for EFB-Server	42	1200	Door opening 270°	RAL7035
ESV-W422B.GR	Side Wall for EFB-Server	42	1200	PDU in W=600 mm	RAL7035
ESV-W422C.GR	Partition / Separation for EFB-Server	42	1200	Partition / Separation with feet	RAL7035
ESV-W422D.GR	Partition / Separation for EFB-Server	42	1200	Partition / Separation w/o feet	RAL7035
ESV-W420A.TS	Side Wall for EFB-Server	42	1000	Door opening 270°	RAL9005
ESV-W420B.TS	Side Wall for EFB-Server	42	1000	PDU in W=600 mm	RAL9005
ESV-W420C.TS	Partition / Separation for EFB-Server	42	1000	Partition / Separation with feet	RAL9005
ESV-W420D.TS	Partition / Separation for EFB-Server	42	1000	Partition / Separation w/o feet	RAL9005
ESV-W422A.TS	Side Wall for EFB-Server	42	1200	Door opening 270°	RAL9005
ESV-W422B.TS	Side Wall for EFB-Server	42	1200	PDU in W=600 mm	RAL9005
ESV-W422C.TS	Partition / Separation for EFB-Server	42	1200	Partition / Separation with feet	RAL9005
ESV-W422D.TS	Partition / Separation for EFB-Server	42	1200	Partition / Separation w/o feet	RAL9005



Line-Up Connectors for EFB-Server, Set 4 Pieces

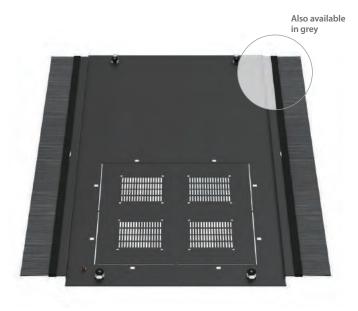
Connector set for stacking of two cabinets EFB-Server when using partitions / separations type C/D/E

Note: side walls type A/B are not suitable for use with line-up connectors Screw mounting directly at the profile frame

Material steel

Scope of delivery: 4 x connector incl. mounting material

ArtNo.	Description For Use With	
ESV-ANR01	Line-Up Connectors for EFB-Server, Set 4 Pieces	Partitions/Separations Type C+D
ESV-ANR02	Line-Up Connectors for EFB-Server, Set 4 Pieces	Partitions/Separations Type E



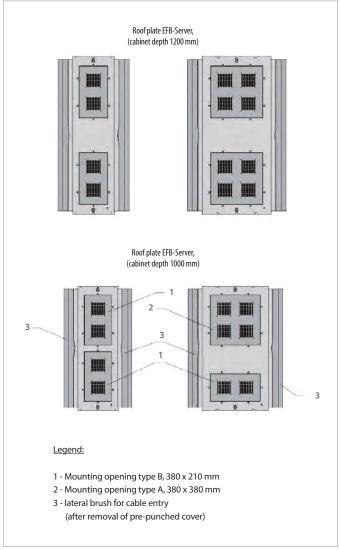




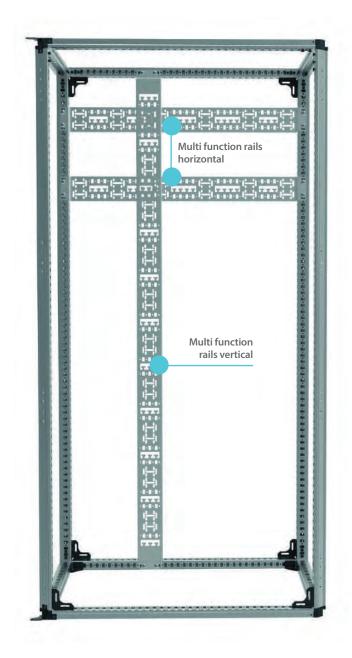
Brush Strip for Roof EFB-Server, 1 Piece

Brush strip for use at the side edge of the roof Mounting after removal of the pre-punched cover Material plastic, black Scope of delivery: 1 x brush strip

ArtNo.	Description	Length
ESV-BRS10	Brush Strip for Roof EFB-Server, 1 Piece	1000 mm
ESV-BRS12	Brush Strip for Roof EFB-Server, 1 Piece	1200 mm









Horizontal and vertical multi function rails are mountable together

Multi Function Rails Horizontal for EFB-Server

Multi function rail for mounting between the cabinet poles For universal mounting of accessories, cable routing etc. Positioning in any height possible Material steel

Delivery 1 x rail incl. mounting material

ArtNo.	Description	For Cabinet Depth
ESV-MFH10	Multi Function Rail Horizontal for EFB-Server	1000 mm
ESV-MFH12	Multi Function Rail Horizontal for EFB-Server	1200 mm

Multi Function Rails Vertical for EFB-Server

Multi function rail for mounting between the cabinet poles For universal mounting of accessories, cable routing etc. Mounting at any position possible Material steel

Delivery 1 x rail incl. mounting material

ArtNo. Description		For Cabinet Height
ESV-MFV42	Multi Function Rail Vertical for EFB-Server	42 U
ESV-MFV47	Multi Function Rail Vertical for EFB-Server	47 U





PDU holder bottom

SIDE WALLS TYPE B enable mounting of PDU / socket strips between 19" profile and side wall also for cabinet width 600 mm



SUITABLE SOCKET STRIPS ON PAGE 251 FURTHER ACCESSORIES YOU'LL FIND IN THE ONLINE-SHOP



PDU Holder for EFB-Server, Set 2 Pieces

For vertical mounting of socket strips (PDU) lateral at the cabinet frame Note: with side walls type B a lateral mounting of PDUs is possible even for cabinet width 600 mm

Material steel sheet, galvanised

Scope of delivery. 2 x PDU holder incl. mounting material (toolless)

ArtNo.	Description
ESV-PDU01	PDU Holder for EFB-Server, 2 Pieces







Vertical Cable Combs for EFB-Server

For vertical cable routing in the cabinet Suitable for cabinet widths 600 mm and 800 mm Toolless mounting at the 19" profiles

Material plastic, black resp. steel sheet, RAL7035, light grey / RAL 9005, jet black

Scope of delivery: 1 x vertical cable comb incl. mounting material

ArtNo.	Description	U	Colour
ESV-VKK42.GR	Vertical Cable Comb for EFB-Server	42	RAL7035
ESV-VKK47.GR	Vertical Cable Comb for EFB-Server	47	RAL7035
ESV-VKK42.TS	Vertical Cable Comb for EFB-Server	42	RAL9005
ESV-VKK47.TS	Vertical Cable Comb for EFB-Server	47	RAL9005







Vertical Cable Management with Cover for EFB-Server

Vertical cable duct with two independent covers (top/below)

Suitable for cabinet width 800 mm

Toolless mounting at the 19" profiles

Material plastic, black resp. steel sheet RAL7035, light grey / RAL9005, jet black

Scope of delivery: 1 x vertical cable duct with covers incl. mounting accessories

ArtNo.	Description	U	Colour
ESV-VKM42.GR	Vertical Cable Management for EFB-Server	42	RAL7035
ESV-VKM47.GR	Vertical Cable Management for EFB-Server	47	RAL7035
ESV-VKM42.TS	Vertical Cable Management for EFB-Server	42	RAL9005
ESV-VKM47.TS	Vertical Cable Management for EFB-Server	47	RAL9005

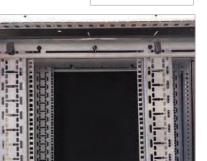


Middle Profile for EFB-Server

Vertical middle profile for support of heavy devices Tool-less mounting at the upper and lower profile carrying rail Material steel, galvanised Scope of delivery: 1 x middle profile, mounting accessories

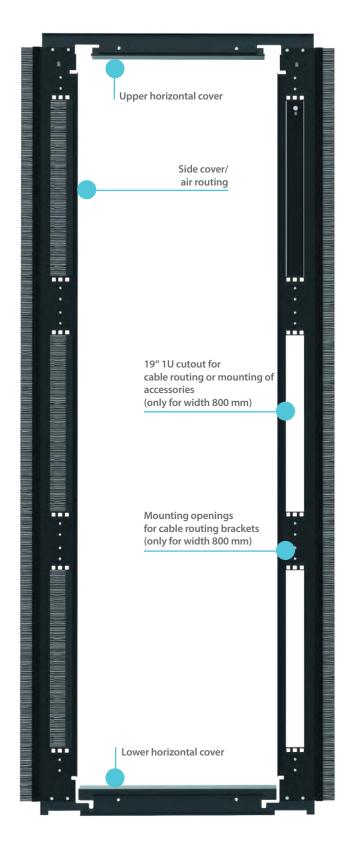
ArtNo.	Description	U
ESV-MPR42	Middle Profile for EFB-Server	42
ESV-MPR47	Middle Profile for EFB-Server	47





Both the 19" profiles and additional middle profiles can be assembled are adjustable tool-less











For covering the area beside the 19" level in cabinets EFB-Server

Serves to control the air flow and prevents the mixing of warm and cold air Sealing to side walls with brush strip

With cutouts 3 x 19" 1U per side for cable routing or accessory mounting Mounting openings for cable routing brackets

Toolless mounting left- and right-sided of the 19" profiles

Material steel sheet

Paint finish RAL7035, light grey / RAL9005, jet black

Scope of delivery: 2 x panel incl. mounting accessories, brush strips

ArtNo.	Description	U	Width	Colour
ESV-SA3426.GR	Side Cover/Air Routing for EFB-Server	42	600 mm	RAL7035
ESV-SA3476.GR	Side Cover/Air Routing for EFB-Server	47	600 mm	RAL7035
ESV-SA3428.GR	Side Cover/Air Routing for EFB-Server	42	800 mm	RAL7035
ESV-SA3478.GR	Side Cover/Air Routing for EFB-Server	47	800 mm	RAL7035
ESV-SA3426.TS	Side Cover/Air Routing for EFB-Server	42	600 mm	RAL9005
ESV-SA3476.TS	Side Cover/Air Routing for EFB-Server	47	600 mm	RAL9005
ESV-SA3428.TS	Side Cover/Air Routing for EFB-Server	42	800 mm	RAL9005
ESV-SA3478.TS	Side Cover/Air Routing for EFB-Server	47	800 mm	RAL9005







Horizontal Cover/Air Routing for EFB-Server

Note: for fixing, Side covers ESV-SAExxx are necessary

For covering the area above and below of the 19" level in cabinets EFB-Server Serves as blinding and control of the air flow

Toolless mounting at the side covers

Material steel sheet

Paint finish RAL7035, light grey / RAL9005, jet black

Scope of delivery: 2 x panel incl. mounting accessories

Ar	tNo.	Description	U	Width	Colour
ES	V-HAB426.GR	Horizontal Cover/Air Routing for EFB-Server	42	600 mm	RAL7035
ES	V-HAB476.GR	Horizontal Cover/Air Routing for EFB-Server	47	600 mm	RAL7035
ES	V-HAB428.GR	Horizontal Cover/Air Routing for EFB-Server	42	800 mm	RAL7035
ES	V-HAB478.GR	Horizontal Cover/Air Routing for EFB-Server	47	800 mm	RAL7035
ES	V-HAB426.TS	Horizontal Cover/Air Routing for EFB-Server	42	600 mm	RAL9005
ES	V-HAB476.TS	Horizontal Cover/Air Routing for EFB-Server	47	600 mm	RAL9005
ES	V-HAB428.TS	Horizontal Cover/Air Routing for EFB-Server	42	800 mm	RAL9005
ES	V-HAB478.TS	Horizontal Cover/Air Routing for EFB-Server	47	800 mm	RAL9005

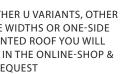






Sliding door for Cold/Warm Aisle Containment basing on cabinet series, EFB-Server' Sliding door with operating handles without lock (locking optional on demand) Manual operation, self-closing or automatic operation available (optional) Variants for use with/without levelling feet or plinth available Materials steel, aluminium, certified safety glass Paint finish RAL7035, light grey / RAL9005, jet black Delivery as complete set incl. 2 x door element, upper cover, 2 side walls and mounting material

FURTHER U VARIANTS, OTHER AISLE WIDTHS OR ONE-SIDE MOUNTED ROOF YOU WILL FIND IN THE ONLINE-SHOP & ON REQUEST



We advise & deliver individual solutions for your project - please contact us.

Sliding Doors for EFB-Server 42U, Cabinet Depth 1200 mm, Aisle 1200 mm

ArtNo.	Description	U	Cabinet Depth	Installation	Operation	Aisle width	Colour
ESV-STR4220M.GR	Sliding Door for EFB-Server	42	1200	Without feet	Manual	1200 mm	RAL7035
ESV-STR422FM.GR	Sliding Door for EFB-Server	42	1200	With feet	Manual	1200 mm	RAL7035
ESV-STR4220S.GR	Sliding Door for EFB-Server	42	1200	Without feet	Self-closing	1200 mm	RAL7035
ESV-STR4220M.TS	Sliding Door for EFB-Server	42	1200	Without feet	Manual	1200 mm	RAL9005
ESV-STR422FM.TS	Sliding Door for EFB-Server	42	1200	With feet	Manual	1200 mm	RAL9005
ESV-STR4220S.TS	Sliding Door for EFB-Server	42	1200	Without feet	Self-closing	1200 mm	RAL9005

Sliding Doors for EFB-Server 42U, Cabinet Depth 1000 mm, Aisle 1200 mm

ArtNo.	Description	U	Cabinet Depth	Installation	Operation	Aisle width	Colour
ESV-STR4200M.GR	Sliding Door for EFB-Server	42	1000	Without feet	Manual	1200 mm	RAL7035
ESV-STR420FM.GR	Sliding Door for EFB-Server	42	1000	With feet	Manual	1200 mm	RAL7035
ESV-STR4200S.GR	Sliding Door for EFB-Server	42	1000	Without feet	Self-closing	1200 mm	RAL7035
ESV-STR4200M.TS	Sliding Door for EFB-Server	42	1000	Without feet	Manual	1200 mm	RAL9005
ESV-STR420FM.TS	Sliding Door for EFB-Server	42	1000	With feet	Manual	1200 mm	RAL9005
ESV-STR4200S.TS	Sliding Door for EFB-Server	42	1000	Without feet	Self-closing	1200 mm	RAL9005



Aisle Roof for Cold/Warm Aisle EFB-Server

Roof elements for cold / warm aisle containment basing on, EFB-Server' **Toolless mounting** Raised construction +150 mm Material steel sheet, polycarbonat Paint finish RAL7035, light grey / RAL9005, jet black

Scope of delivery: 1 x aisle roof incl. mounting material

We advise & deliver individual solutions for your project - please contact us.

ArtNo.	Description	Aisle width	Colour
ESV-GDE62F.GR	Aisle Roof for EFB-Server	1200 mm	RAL7035
ESV-GDE82F.GR	Aisle Roof for EFB-Server	1200 mm	RAL7035
ESV-GDE62F.TS	Aisle Roof for EFB-Server	1200 mm	RAL9005
ESV-GDE82F.TS	Aisle Roof for EFB-Server	1200 mm	RAL9005



IN ROW AND SIDE COOLERS OPTIMAL CLIMATISATION ENSURES HIGH AVAILABILITY

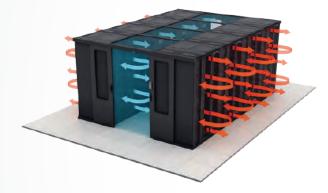
In environments such as data centres, where a lot of heat is emitted by the numerous devices, reliable cooling is crucial - only in this way can the high availability of the active technology be ensured around the clock.

By using the high-quality in-row or side heat exchangers suitable for the PRO and EFB-Server cabinet series, there is a permanent, constantly controlled exchange of air, so that hot spots can be prevented. No additional cold air has to be blown into the room: Temperature and humidity are controlled by the precision air-conditioning units directly in the cold aisle or in individual rooms directly in the cold aisle or in individual individual cabinets.

The consistent separation of cold and warm air opens up high potential for energy savings:

HIGH-QUALITY COOLING SOLUTIONS

- DX ("Direct Expansion" / Split) and cold water versions available
- Simple installation without intervention inside the cabinet
- Ensuring short cold air paths to the active units
- Direct hot air discharge from the active units
- No single point of failure due to simple n+1 redundancy
- Filters can be changed easily at any time
- Humidity and temperature measurement
- Numerous options: EC fan, communication via Ethernet



Containment of eight server cabinets in variant "Cold Aisle": the In Row Coolers transport the cooled air into the corridor. From there, it will stream thrue the racks. After cooling the devices, the warm air comes out of the rear side of the cabinets.

WE ADVISE YOU & DELIVER INDIVIDUAL SOLUTIONS FOR YOUR PROJECT. PLEASE CONTACT US!

CLOSED CIRCUIT

Cooling directly in the cabinet by means of Side heat exchanger



OPEN CIRCUIT

Cooling via cold aisle by means of in-row heat exchanger







ADDITIONAL VARIANT: 19" NETWORK CABINET OFFICE -ACOUSTICALLY INSULATED YOU WILL FIND ON PAGE 215



19" Network Cabinet OFFICE, RAL7035/RAL9005

19" network cabinet according to DIN41494

Steel sheet housing, self-supporting, completely pre-assembled, self-ventilated Inside front and rear 4 x 19"profiles (2 front, 2 rear-sided), galvanised, step-less depth-adjustable

Front door full glass, 1-part (thickness 4 mm)

Front door with 1-point latch-locking

Door stop possible left or right-sided

Bottom and rear with pre-punched openings for cable entry (ca. 245×25 mm) Roof and bottom prepared for accommodation of 1 x fan unit (Art.-No. 691664)

Internal earthing of all cabinet sections

Paint finish RAL7035, light grey / RAL9005, jet black

Max. load 12U 30 kg, 15U 38 kg, 18U 45 kg

Protection degree IP20

Included in delivery: 1 x brush, 4 x leveling feet M8, 2 x key Delivery in transport packaging on disposable pallet



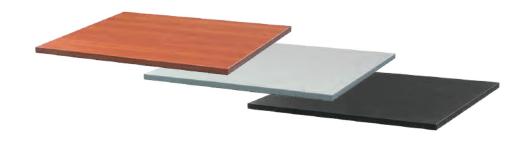
Picture shows cabinet OFF-1566GR.V1RW with optional worktop (black) on distance sleeves, castor set and further 19" accessories inside



Roof, rear wall and bottom plate are equiped with pre-punshed cable entries.

After opening, they can be closed with a brush strip (included in delivery).

ArtNo.	U	Width	Depth	Height	Front Door	Rear Door	Max. Load	Colour
OFF-1266GR.V1RW	12	600 mm	600 mm	604 mm	Full glass door 1-part	Rear wall	30 kg	RAL7035
OFF-1566GR.V1RW	15	600 mm	600 mm	737 mm	Full glass door 1-part	Rear wall	38 kg	RAL7035
OFF-1568GR.V1RW	15	600 mm	800 mm	737 mm	Full glass door 1-part	Rear wall	38 kg	RAL7035
OFF-1866GR.V1RW	18	600 mm	600 mm	871 mm	Full glass door 1-part	Rear wall	45 kg	RAL7035
OFF-1868GR.V1RW	18	600 mm	800 mm	871 mm	Full glass door 1-part	Rear wall	45 kg	RAL7035
OFF-1266TS.V1RW	12	600 mm	600 mm	604 mm	Full glass door 1-part	Rear wall	30 kg	RAL9005
OFF-1566TS.V1RW	15	600 mm	600 mm	737 mm	Full glass door 1-part	Rear wall	38 kg	RAL9005
OFF-1568TS.V1RW	15	600 mm	800 mm	737 mm	Full glass door 1-part	Rear wall	38 kg	RAL9005
OFF-1866TS.V1RW	18	600 mm	600 mm	871 mm	Full glass door 1-part	Rear wall	45 kg	RAL9005
OFF-1868TS.V1RW	18	600 mm	800 mm	871 mm	Full glass door 1-part	Rear wall	45 kg	RAL9005





Worktop for OFFICE

Attractive worktop for mounting on the cabinet roof Material MDF, laminated, thickness 18 mm Optional distance set (Art.-No. OFF-ARB01) enables raising of 19 mm for optimized ventilation Paint finish calvados (wood) / grey / black Delivery incl. mounting accessories

ArtNo.	Description	Width	Depth	Colour
OFF-ARB66.CV	Worktop for OFFICE	600 mm	600 mm	Natural colour
OFF-ARB68.CV	Worktop for OFFICE	600 mm	800 mm	Natural colour
OFF-ARB66.GR	Worktop for OFFICE	600 mm	600 mm	Grey
OFF-ARB68.GR	Worktop for OFFICE	600 mm	800 mm	Grey
OFF-ARB66.TS	Worktop for OFFICE	600 mm	600 mm	Black
OFF-ARB68.TS	Worktop for OFFICE	600 mm	800 mm	Black



Set for Raising the Worktop

For raising the worktop to 19 mm above the roof Necessary for mounting of fans if worktop is used Optimisation of cabinet ventilation Included in delviery: 4 x distance sleeve, 4 x screw M5 x 34, 4 x washer

ArtNo.	Description
OFF-ARB01	Set for Raising the Worktop



Castor Set for OFFICE

Plastic castors with steel thread bolt M8 Height 68 mm (without thread bolt) Included in delivery: $2 \times \text{castor}$ with brake, $2 \times \text{castor}$ without brake

ArtNo.	Description
OFF-ROL01	Castor Set for Cabinet Series OFFICE



Leveling Feet 4 Pcs. M8

Leveling feet for cabinet series OFFICE and wall housings 1-part/2-part Thread M8, height 56 mm With locknut

ArtNo.	Description
OFF-NIV01	Leveling Feet for Cabinet Series OFFICE and Wall Housings, 4 Pcs. M8



19" 5U Tablet Holder, RAL7035

Module for vertical carrying of 16, 20 or 27 devices like tablets, laptops etc. Available capacities: 16 trays of 22 mm each, 20 trays of 16.3 mm each or 27 trays of 10.5 mm each

Stainless steel brackets adjustable for different tray widths
Soft standing area and edge protection for avoiding of scratches
Rear-sided cable entries incl. edge protection for charging cables
Material steel, brackets stainless steel
Paint finish RAL7035, light grey

ArtNo.	Description	Trays	Colour
691777GR.1	19" 5U Tablet Holder	16 x 22 mm	RAL7035
691777GR.2	19" 5U Tablet Holder	20 x 16 mm	RAL7035
691777GR.3	19" 5U Tablet Holder	27 x 10 mm	RAL7035

OUR CONFIGURATOR FOR NETWORK AND SERVER CABINETS



With high-quality product lines, our new **cabinet configurator** provides adequate options for your individual customised configuration. Simply select and combine model, frame and accessories.

While selecting your parameters, your **individually designed** cabinet is always visualised to allow you to directly view and track all modifications and add suitable accessories as needed

https://configurator.efb-elektronik.de/cabinet

PREMIUM SERVER CABINETS FOR DATA CENTERS



The premium line **EFB-Server** includes a high-quality system for server cabinets and the matching accessories. Due to the excellent workmanship, the products are optimally suited for demanding requirements of complex data centers. Find out more in the free brochure.



DOWNLOAD THE FREE BROCHURE: www.efb-elektronik.de/en/efb-server



LOOK UP STANDARD TERMS IN THE GLOSSARY.

Brief and straightforward explanations can be found starting on page 334.

ALMOST SILENT & WITHOUT WASTE HEAT FOR THE **INSTALLATION ROOM** Ideal for all quiet places: office, conference/seminar rooms, library, hospital etc.



















Complete Set 19" Cabinet PRO 42U 800x1000 + Side Cooler 3.5 kW

Nearly noiseless and without heat for the installation room Ideal for all quite locations: office, conference / seminar room, libraries, hospital, ...

19" network/server cabinet 42U, depth 1000 mm, coplet set with side cooler

Nearly noiseless due to integrated noise absorption mats - practically not noticeable in the installation location!

Integrated air routing system guides the cold air into the frontside of the cabinet

Evacuating of the waste heat in top of the cabinet

No waste heat for the installation room

Side module contains the cooling unit of the split-climatic system

Outdoor unit ("Chiller") is installed in next room or at a outside wall

Cooling system in Inverter Technology, means that only the actually necessary energy is used

Common Specifications:

Side cooler inside fully lined with special acoustic foam for especially quite operation Insulated side and rear wall, detachable

Rear-sided outlet for cables an cooling pipes

Control via touch panel in the front or IR remote control (included)

Paint finish RAL7035, light grey (RAL9005 or special design on request)

Technical specifications indoor unit (integrated in side module):

Modern inverter technology Cooling power 3500 W Energy efficiency class "A" Operation voltage 230 V / 50 Hz Air flow 720 m³/h SPL max. 39 dB(A)



For connection and filling with refridgerant a certified climatic technician is neccessary

Technical specifications outdoor unit:

Modern inverter technology Cooling power 3500 W Refridgerant R410a

ArtNo.	Description	Width	Depth	Height
PRO-4210GR.SKL3,5	Cabinet 42U + Bay Cooler 3.5 kW, WxD 1100x1000, RAL7035, *Complete Set*	1100 mm	1000 mm	1963 mm







The cabinet is delivered prepared with all openings and cutouts



The optional air funnel allows the direct removal of heat from the room by means of a PVC hose



Cabinet IP55 with Side Cooler

IP55 cabinet with side-mounted cooling solution

3 power levels 1.0, 1.5 and 1.9 kW cooling capacity

Cooling device for industrial purposes at high environmental temperatures up to +55°C

Industrial-qualified steel sheet housings

Compact, rugged design and simple function

Electromechanical thermostat and fault indicating contact

Integrated condensate evaporator

Temperature selection directly at the device

Optional exhaust air funnel allows the direct discharge of waste heat through an exhaust

hose (\oslash 150 mm) from the installation room

Noise level 67 dB(A)

Power supply 230 V / 50 Hz

Supplied completely ready-for-installation including prepared cabinet with all openings, sealings, cables etc.

ArtNo.	Description	Width	Depth	Height	With Air Funnel Ø 150 mm
KS55-4288GR.1,0	19" Cabinet 42U IP55 with Side Cooler 1.0 kW	1037 mm	800 mm	2144 mm	False
KS55-4288GR.1,0A	19" Cabinet 42U IP55 with Side Cooler 1.0 kW, Air Funnel	1037 mm	800 mm	2144 mm	True
KS55-4288GR.1,5	19" Cabinet 42U IP55 with Side Cooler 1.5 kW	1037 mm	800 mm	2144 mm	False
KS55-4288GR.1,5A	19" Cabinet 42U IP55 with Side Cooler 1.5 kW, Air Funnel	1037 mm	800 mm	2144 mm	True
KS55-4288GR.1,9	19" Cabinet 42U IP55 with Side Cooler 1.9 kW	1037 mm	800 mm	2144 mm	False
KS55-4288GR.1,9A	19" Cabinet 42U IP55 with Side Cooler 1.9 kW, Air Funnel	1037 mm	800 mm	2144 mm	True
KS55-4280GR.1,9	19" Cabinet 42U IP55 with Side Cooler 1.9 kW	1037 mm	1000 mm	2144 mm	False
KS55-4280GR.1,9A	19" Cabinet 42U IP55 with Side Cooler 1.9 kW, Air Funnel	1037 mm	1000 mm	2144 mm	True



Exhaust Hose Ø 150 mm, incl. 1 x Clamp

Hose ⊘ 150 mm, length 3 m / 6 m For use with side cooling solutions with air funnel For evacuation of lost heat out of the room Material PVC Delivery incl. 1 x mounting clamp

ArtNo.	Description
80165.3	Exhaust Hose Ø 150 mm, Length 3.0 m, incl. 1 x Clamp
80165.6	Exhaust Hose Ø 150 mm, Length 6.0 m, incl. 1 x Clamp



IP Thermometer with E-Mail, LAN, WiFi, PoE, SNMP

New generation of the IP Thermometers in modern Design Connection of up to **three temperature- or humidity sensors (also combisensors)**

Two dry contacts for control of alarms (door opening, smoke sensor, etc.) Network connection via **LAN or WiFi**

E-Mail with TLS transport encryption

SMS via HWq-SMS gateway directly via network

Worldwide access via SensDesk portal of the manufacturer incl. web interface (Android, iOS)

Applications for the IP thermometer:

IT monitoring: control of relevant data in server room and alarm to the technicians

Health: monitoring of refridgerators incl. reporting

Food industry: monitoring of cold chain

Heating systems: fast information at failure of critical systems

Out of Band: integrated WiFi module enables connection at critical locations

Included in delivery: IP thermometer, 1 x temperature sensor (3 m), software CD, power supply (adaptable Euro/UK/USA/China)



ArtNo.	Description
DCM1002.2	IP-Thermometer with E-Mail, LAN, WiFi, PoE, SNMP





Temperature Sensor for IP Thermometer

Temperature sensor, cable length 3 m (other lengths on request) Temperature range -10°C .. +80°C Suitable for DCM1002.x and DCM1001.x

ArtNo.	Description
DCM1000.T	Temperature Sensor for DCM100X.x, -10°C +80°C, Cable 3 m





Humidity Sensor for IP Thermometer

Humidity sensor, cable length 3 m (other lengths on request) Suitable for DCM1002.x and DCM1001.x

ArtNo.	Description
DCM1000.H	Humidity Sensor for DCM1002.1



Door Contact Switch for IP Thermometer

Door contact switch, cable length 3 m Suitable for DCM1002.x and DCM1001.x (not for DCM1000.x)

ArtNo.	Description
DCM1001.D	Door Contact Switch for DCM1002.x













19" Roll Container 15U, Acoustically Insulated, Office Design

All EFB housings are available as acoustical insulated type and in individual design - ask your sales contact!

19" Network cabinet as roll container for office environments

High-quality acoustical insulated variant for ergonomic work, suitable for installation directly at the working place Attractive, stable MDF plate at the upper side enables parking of further devices (printer etc.) on the cabinet

Attenuation (typ.) 8 .. 25 dB (frequency-dependent)

Especially decoupled, smooth runing "Silent" fans at the rear wall guide the heat to outside, converted air volume 294 m³/h

Fresh air feeding from bottom-front via filter grid

Cable entry rear-sided below via brush

Inside 4 x 19" rails, depth-adjustable in 25 mm raster

Front door with window of certified safety glass (5 mm), with turning handle and profile half-cylinder acc. to DIN18252, PHC exchangeable

Rear door with 1 x latch, lock equal to door lock

Side walls detachable with 2 x latch

Max. load 300 kg (castors) / 600 kg (leveling feet)

Paint finish und MDF plate RAL7035, light grey

Delivery incl. set of 4 castors (2 with brake), 2 x key, 1 x power supply for fans

ArtNo.	Bezeichnung	U	Width	Height
692615N-AK-GR	19" Roll Container 15U, Acoustically Insulated, Office Design	15	600 mm	900 mm









19" Wall Housing, Acoustically Insulated

All EFB housings are available as acoustical insulated type - ask your sales contact!

Acoustically high-quality insulated 19" wall housing for acoustical insulation of loud, active devices For installation in immediate near of working places, in seminar or conference rooms without noise pollution Complete inner lining with especially noise absorbers

Attenuation (typ.) 8 .. 25 dB (frequenceny-dependent, see data sheet)

Special decoupled super silent fans in roof area

Converted air volume 196 m³/h

Closeable fresh air inlets in bottom

Cable entry in bottom via brush

Front door with window of certified safety glass (4 mm), lockable

Side walls detachable, lockable

Paint finish RAL7035, light grey

Delivery incl. 2 x key, 1 x power supply for the fans



2 x super-silent fan in roof, additionally decoupled

	ArtNo.	Bezeichnung	U	Width	Height	Depth	Max. Load
	691706.1-AK	19" Wall Housing, Acoustically Insulated	6	600 mm	330 mm	500 mm	50 kg
691709.1-AK 691712.1-AK		19" Wall Housing, Acoustically Insulated	9	600 mm	465 mm	500 mm	50 kg
		19" Wall Housing, Acoustically Insulated	12	600 mm	600 mm	500 mm	50 kg
	691715.2-AK	19" Wall Housing, Acoustically Insulated	15	600 mm	730 mm	600 mm	50 kg





Pre-assembled quality fan in roof (Thermostat etc. please order separately on demand)







19" Network Cabinet OFFICE - Acoustically Insulated

19" network cabinet according to DIN41494

Steel sheet housing, self-supporting, completely pre-assembled, active ventilated

Interior lined with sound-absorbing foam, attenuation ca. 8 dB Front door with additional, high quality rubber sealing

Inside front and rear 4×19 "profiles (2 front, 2 rear-sided), galvanised, stepless depth-adjustable

Front door full glass, 1-part (thickness 4 mm)

Front door with 1-point latch-locking

Door stop possible left or right-sided

Bottom and rear with pre-punched openings for cable entry

Roof equiped with high quality single fan with cable open end (ca. 0,3 m, without thermostat/temperature controller + cables, please order separately)

Internal earthing of all cabinet sections

Paint finish RAL7035, light grey / RAL9005, jet black

Max. load 45 kg

Protection degree IP20

Included in delivery: 1 x brush, 4 x leveling feet M8, 2 x key

Delivery in transport packaging on disposable pallet

ArtNo.	U	Width	Depth	Height	Front Door	Rear Door	Colour
OFF-1866GR.V1RW-AK	18	600 mm	600 mm	871 mm	Full glass door 1-part	Rear wall	RAL7035
OFF-1866TS.V1RW-AK	18	600 mm	600 mm	871 mm	Full glass door 1-part	Rear wall	RAL9005
OFF-1868TS.V1RW-AK	18	600 mm	800 mm	871 mm	Full glass door 1-part	Rear wall	RAL9005





Also doors and poles are fully insulated



Rear-sided roof area with 3 x super-silent fan







Server Cabinet 26U/600/1000 mm, Acoustically Insulated, Wood Design Beech

All EFB housings are available as acoustical insulated type - ask your sales contact!

Acoustically high-quality insulated 19" server cabinet for acoustical insulation of loud, active devices

Especially attractive design with side elements and roof in wood type (Beech)

For installation in immediate near of working places, in seminar- or conference rooms without noise pollution

Complete inner lining with especially noise absorbers

Attenuation (typ.) 8 .. 25 dB (frequency-dependent)

3 x Super-Silent fans in rear roof area

Converted air volume 294 m³/h

Closeable fresh air inlets in bottom

Cable entry in bottom via perforated air entry in bottom

Front door 1-part with perforation design, acoustically insulated, lockable Rear door 2-part with perforation design, acoustically insulated, lockable Front and rear door with turning handle and profile half-cylinder acc. to

DIN18252 / EN1303, PHC exchangeable by customer

Side walls detachable, screwed

Paint finish (frame) RAL9005, jet black, wood elements beech

Delivery incl. $2 \times \text{key}$, $1 \times \text{power supply}$ for the fans, $4 \times \text{leveling feet}$, set of captive nuts (PU 20 pcs.)

ArtNo.	U	Width	Depth	Height	Front Door	Rear Door
693126.60-AK-BU	26	600 mm	1000 mm	1270 mm	Other	Other

IP CABINETS & OUTDOOR CABINETS



// YOU MIGHT ALSO BE INTERESTED IN:

19" 3U Power Distribution Box	P. 234
Active Devices (Switches etc.)	P. 312
LED Cabine Lighting	P. 233















19" Network / Industrial Cabinet, Protection Degree IP55

19" Network cabinet according to DIN 41494

Steel sheet housing with welded frame, completely pre-assembled Pre-assembled plinth 100 mm

Inside front and rear $4 \times 19^{\circ}$ profiles (2 front, 2 rear-sided), galvanised, depth-adjustable in 25 mm raster

Numbering of rack units at the 19" profiles

Front an rear door steel, 1-part

Front and rear door with 3-point locking with turning handle, lockable

Door opening angle front and rear > 120°

Side walls not detachable

Inner roof pre-punched openings for fan units

Bottom prepared with air inlet filters and rubber grommets \emptyset 80 mm for cable entry

Internal earthing of all cabinet sections

Max. load 1000 kg

Paint finish RAL9005, jet black

Protection degree IP55

Included accessories: 1 x set of captive nuts (PU 20 pcs.),

pre-installed plinth, 2 x key

Delivery in transport packaging on disposable pallet

ArtNo.	U	Width	Depth	Height	Suitable Fans	Colour
692524IP55.GR	24	600 mm	600 mm	1360 mm	only 2-fan	RAL7035
692724IP55.GR	24	800 mm	800 mm	1360 mm	2/4/6-fan	RAL7035
691742IP55.GR	42	800 mm	800 mm	2160 mm	2/4/6-fan	RAL7035
692442IP55.GR	42	800 mm	1000 mm	2160 mm	2/4/6-fan	RAL7035
692524IP55.TS	24	600 mm	600 mm	1360 mm	only 2-fan	RAL9005
692724IP55.TS	24	800 mm	800 mm	1360 mm	2/4/6-fan	RAL9005
691742IP55.TS	42	800 mm	800 mm	2160 mm	2/4/6-fan	RAL9005
692442IP55.TS	42	800 mm	1000 mm	2160 mm	2/4/6-fan	RAL9005





SUITABLE POWER CABLE EK504.XV2 ON PAGE 261

Roof Fan Units for Standing Cabinets IP55

For installation in roof of all network and server cabinets Classic 19" Mounting possible with optional mounting set (Art.-No. 691654MS / 691654MSTS)

Control via connected thermostat (Art.-No. 691642)

Thermostat and mounting material included

Rear-sided power connection via IEC C14 socket (power cable not included a r. Art. No. F/F/C04.x)

ded, e.g. Art.-No. EK504.x) Rated voltage 230 V, 50 Hz

Illuminated switch ON/OFF

Rear sided earth connection via earth jack

Material: steel sheet

Paint finish: RAL7035 light grey / RAL9005 jet black

ArtNo.	Description	Air Flow	Colour
691654V3	Roof Fan Unit, 2 Fans, for IP55 Standing Cabinet	320 m ³ /h	RAL7035
691655V3	Roof Fan Unit, 4 Fans, for IP55 Standing Cabinet	640 m ³ /h	RAL7035
691659V3	Roof Fan Unit, 6 Fans, for IP55 Standing Cabinet	920 m ³ /h	RAL7035
691654TSV3	Roof Fan Unit, 2 Fans, for IP55 Standing Cabinet	320 m ³ /h	RAL9005
691655TSV3	Roof Fan Unit, 4 Fans, for IP55 Standing Cabinet	640 m ³ /h	RAL9005
691659TSV3	Roof Fan Unit, 6 Fans, for IP55 Standing Cabinet	920 m³/h	RAL9005

19" Wall Housings IP55

Steel sheet housing with welded corpus, completely pre-assembled Right- and left-sided metal covered air inlets for passive ventilation

Side walls not detachable

Roof hinged, inner roof prepared for mounting of Plug&Play fan unit Art.-No. 691656GR (cable not included, please order separately, e.g. Art.-No. EK504.x) Bottom with PG glands 1 x PG48, 2 x PG21 and 3 x Ø 20 mm PVC blind grommets

For depth 450 mm inside $2 \times 19^{\circ}$ profile rails front-sided, galvanised, with numbering of rack units (U) For depth 600 mm inside $4 \times 19^{\circ}$ profile rails (2 front, 2 rear), galvanised, with numbering of rack units (U)

Front door steel sheet with reinforcement and 3-point bar locking, lockable, with profile half-cylinder acc. to DIN 18252 / EN1303

Profile half-cylinder exchangeable by customer

Cabinet parts inside completely earthed

Max. load 100 kg

Paint finish RAL7035, light grey

Protection degree IP55

Plinth for use as standing cabinet available as option Included accessories: 4 x Wall mount bracket, 2 x key









19" Wall Housing IP55, Steel Door

ArtNo.	Bezeichnung	U	Height	Depth
691707IP55.1	19" Wall Housing IP55, Steel Door	7	410 mm	450 mm
691709IP55.1	19" Wall Housing IP55, Steel Door	9	500 mm	450 mm
691712IP55.1	19" Wall Housing IP55, Steel Door	12	630 mm	450 mm
691716IP55.1	19" Wall Housing IP55, Steel Door	16	810 mm	450 mm
691720IP55.1	19" Wall Housing IP55, Steel Door	20	1000 mm	450 mm
691707IP55.2	19" Wall Housing IP55, Steel Door	7	410 mm	600 mm
691709IP55.2	19" Wall Housing IP55, Steel Door	9	500 mm	600 mm
691712IP55.2	19" Wall Housing IP55, Steel Door	12	630 mm	600 mm
691716IP55.2	19" Wall Housing IP55, Steel Door	16	810 mm	600 mm
691720IP55.2	19" Wall Housing IP55, Steel Door	20	1000 mm	600 mm









19" Wall Housing IP55, Glass Door

ArtNo.	Bezeichnung	U	Height	Depth
691707IP55.1G	19" Wall Housing IP55, Glass Door	7	410 mm	450 mm
691709IP55.1G	19" Wall Housing IP55, Glass Door	9	500 mm	450 mm
691712IP55.1G	19" Wall Housing IP55, Glass Door	12	630 mm	450 mm
691716IP55.1G	19" Wall Housing IP55, Glass Door	16	810 mm	450 mm
691720IP55.1G	19" Wall Housing IP55, Glass Door	20	1000 mm	450 mm
691707IP55.2G	19" Wall Housing IP55, Glass Door	7	410 mm	600 mm
691709IP55.2G	19" Wall Housing IP55, Glass Door	9	500 mm	600 mm
691712IP55.2G	19" Wall Housing IP55, Glass Door	12	630 mm	600 mm
691716IP55.2G	19" Wall Housing IP55, Glass Door	16	810 mm	600 mm
691720IP55.2G	19" Wall Housing IP55, Glass Door	20	1000 mm	600 mm







Fan Unit, 2-Fans for Wall Housings IP55, Plug & Play

Suitable for installation in wall housing series 1-PART/2-PART, FLAT PACK, IP55 and BASIC

Screw mounting hanging inside below the cabinet roof

Thermostat and mounting material included

Rear-sided power connection via IEC C14 socket (power cable not included, e.g. Art.-No. EK504.x)

Rated voltage 230 V / 50 Hz

Illuminated ON/OFF switch

Material steel sheet

Paint finish RAL7035, light grey

ArtNo.	Description	Air Flow	Noise Level	Colour
691656GR	2-Fan Unit, Plug & Play for Wall Housings	320 m ³ /h	47 dB	RAL7035



Plinth for 19" Wall Housing IP55

For using the IP55 wall housings (Art.-No. 6917xxIP55.x) as standing cabinet Plinth height 100 mm, depth 600 mm

Suitable for plane surfaces like e.g. concrete

Screw mounting at the wall housing

Openings for mounting at the floor

Material steel sheet

Paint finish RAL7035, light grey

ArtNo.	Description	For Cabinet Width	For Cabinet Depth
691750WIP.1	Plinth for 19" Wall Housing IP55	600 mm	450 mm
691750WIP.2	Plinth for 19" Wall Housing IP55	600 mm	600 mm



WE CAN DO MORE - CUSTOMIZED SOLUTIONS

This catalogue only gives a brief insight into the variety of solutions that we implement as a manufacturer.

In addition to the standard portfolio, we offer a wide range of special solutions for your projects. Individual colours or printing with customer logo are just as possible as - in addition to the classic steel sheet - outdoor housings made of aluminum sheet or panels as well as stainless steel housings, e.g. for the food sector.

We are happy to develop solutions specifically according to your requirements and guide them through all the necessary steps (design proposal and adaptation, customer approval, certification if necessary, ...) up to delivery.

Numerous successful implementations show our know-how and experience.



Custom 19" 6U aluminum housing IP54, universal to the standing or laying mast or wall mounting, with 6 positions for ROXTEC cable entry



Stainless steel wall housing (INOX) with 2 blind covers. Also possible with viewing window



Stainless steel fire protection distributor F90 for use e.g. in tunnels



Aluminium outdoor housing based on modular panel system, single or double-wall



Your project needs a special colour concept?

Talk with your sales contact!



19" Wall Housings	P. 221
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10" Accessories	P. 229

// YOU MIGHT ALSO BE INTERESTED IN:

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Cable Management	P. 240







19" Wall Housing Flat Pack, RAL7035

ArtNo.	U	Width	Height	Depth
691704FGR.1	4	570 mm	285 mm	450 mm
691706FGR.1	6	570 mm	370 mm	450 mm
691709FGR.1	9	570 mm	500 mm	450 mm
691709FGR.2	9	570 mm	500 mm	600 mm
691712FGR.1	12	570 mm	635 mm	450 mm
691712FGR.2	12	570 mm	635 mm	600 mm
691715FGR.1	15	570 mm	770 mm	450 mm
691715FGR.2	15	570 mm	770 mm	600 mm
691721FGR.2	21	570 mm	1040 mm	600 mm

19" Wall Housing Flat Pack, RAL9005

	_			
ArtNo.	U	Width	Height	Depth
691704FTS.1	4	570 mm	285 mm	450 mm
691706FTS.1	6	570 mm	370 mm	450 mm
691709FTS.1	9	570 mm	500 mm	450 mm
691709FTS.2	9	570 mm	500 mm	600 mm
691712FTS.1	12	570 mm	635 mm	450 mm
691712FTS.2	12	570 mm	635 mm	600 mm
691715FTS.1	15	570 mm	770 mm	450 mm
691715FTS.2	15	570 mm	770 mm	600 mm
691721FTS.2	21	570 mm	1040 mm	600 mm









19" Wall Housing Flat Pack

Steel sheet housing with very solid frame, self-ventilated, not pre-assembled

Front door with window of certified safety glass (4 mm) and latch locking Door stop easily changeable left/right due to high-quality, spring-loaded metal hinge pins

Side walls removable and lockable, lock equal to door lock

Roof, bottom and rear wall with pre-punched openings for cable entry (230 \times 41 mm)

Roof prepared for mounting of 2 x single fan (Art.-No. 691664)

Inside 2 x 19" rails front-sided, depth-adjustable

Cabinet parts completely earthed

Max. load 60 kg (static, equally distributed), protection degree IP20 $\,$

Paint finish RAL7035, light grey / RAL9005, jet black

Included accessories: 2 x key, earthing cables

Delivery unassembled in transport packaging (1 carton)















19" Wall Housing BASIC

Steel sheet housing, screwable from outside, not pre-assembled Front door fully made of certified safety glass, thickness 4 mm, smoke coloured

Front door lockable, door opening angle 120°

Door hinges left-sided

Sidewalls not detachable

Roof prepared for mounting of plug & play fan unit (Art.-No. 691656xx) Roof and bottom with cable entry $145 \times 70 \text{ mm}$

Inside 2 x 19" profile rails, depth-ajustable, with lateral opening for cable

Paint finish RAL7035, light grey / RAL9005, jet black / RAL9010, pure white Width 535 mm, depth 450 / 600 mm

Max. load 80 kg (static, equally distributed), protection degree IP20 Incl. kev

Delivery unassembled in 1 carton with handle

19" Wall Housing BASIC, RAL7035

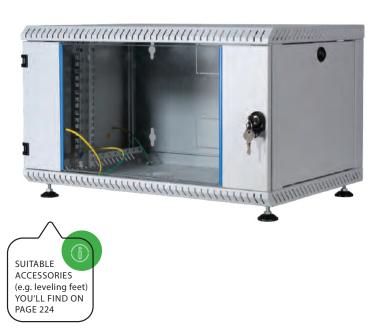
ArtNo.	U	Width	Height	Depth
WGB-1906GR.45	6	535 mm	304 mm	450 mm
WGB-1906GR.60	6	535 mm	304 mm	600 mm
WGB-1909GR.45	9	535 mm	437 mm	450 mm
WGB-1909GR.60	9	535 mm	437 mm	600 mm
WGB-1912GR.45	12	535 mm	571 mm	450 mm
WGB-1912GR.60	12	535 mm	571 mm	600 mm
WGB-1915GR.45	15	535 mm	707 mm	450 mm
WGB-1915GR.60	15	535 mm	707 mm	600 mm

19" Wall Housing BASIC, RAL9005

ArtNo.	U	Width	Height	Depth
WGB-1906TS.45	6	535 mm	304 mm	450 mm
WGB-1906TS.60	6	535 mm	304 mm	600 mm
WGB-1909TS.45	9	535 mm	437 mm	450 mm
WGB-1909TS.60	9	535 mm	437 mm	600 mm
WGB-1912TS.45	12	535 mm	571 mm	450 mm
WGB-1912TS.60	12	535 mm	571 mm	600 mm
WGB-1915TS.45	15	535 mm	707 mm	450 mm
WGB-1915TS.60	15	535 mm	707 mm	600 mm

19" Wall Housing BASIC, RAL9010

ArtNo.	U	Width	Height	Depth
WGB-1906WS.45	6	535 mm	304 mm	450 mm
WGB-1906WS.60	6	535 mm	30 mm	600 mm
WGB-1909WS.45	9	535 mm	437 mm	450 mm
WGB-1909WS.60	9	535 mm	437 mm	600 mm
WGB-1912WS.45	12	535 mm	571 mm	450 mm
WGB-1912WS.60	12	535 mm	571 mm	600 mm
WGB-1915WS.45	15	535 mm	707 mm	450 mm
WGB-1915WS.60	15	535 mm	707 mm	600 mm





Suitable for plug & play fan unit, Threads M8 for feet or castor sets, especially solid metal hinges



Roof & bottom with rear-sided cable entries (250 x 70 mm) and coutouts for plug & play 2-fan unit



Rear side with 2 x cable entry (250 x 70 mm) and openings for wall mounting



Side walls of the 1-part wall housings are removable and lockable



Black variants of wall housings 1-part and 2-part are available on request - contact our sales team!





19" Wall Housings Fixed, 1-Part

Steel sheet housing with welded frame, completely pre-assembled, self-ventilated

Prepared for Plug & Play 2-fan unit Art.-No. 691656xx

Bottom with 4 x mounting point for leveling feet or castor set (please order separately)

Front door with metal hinges for increased stability

Door stop easily changeable left / right

Side walls removable, lockable, locks equal to door lock

Roof, bottom and rear wall with pre-punched openings for cable entry (250 x 70 mm)

Front-sided 2 x 19" profile rails, galvanised, depth-adjustable

Front door with latch locking and window made of certified safety glass (thickness 4 mm)

Internal earthing of all cabinet sections

Paint finish RAL7035, light grey

Protection degree IP20

Included in delivery: 1 x brush terminal, 1 x set of captive nuts (PU 20 pcs.), 2 x key

Delivery in transport packaging, from 30 kg / 12U on pallet

19" Wall Housings Fixed, 1-Part, Depth 400 mm

ArtNo.	U	Width	Height	Max. Load
691704VGR.40	4	600 mm	240 mm	50 kg
691706VGR.40	6	600 mm	330 mm	50 kg
691709VGR.40	9	600 mm	465 mm	50 kg
691712VGR.40	12	600 mm	600 mm	50 kg

19" Wall Housings Fixed, 1-Part, Depth 500 mm

ArtNo.	U	Width	Height	Max. Load
691706VGR.50	6	600 mm	330 mm	50 kg
691709VGR.50	9	600 mm	465 mm	50 kg
691712VGR.50	12	600 mm	600 mm	50 kg
691715VGR 50	15	600 mm	730 mm	50 kg

19" Wall Housings Fixed, 1-Part, Depth 600 mm

ArtNo.	U	Width	Height	Max. Load
691709VGR.60	9	600 mm	465 mm	50 kg
691712VGR.60	12	600 mm	600 mm	50 kg
691715VGR.60	15	600 mm	730 mm	50 kg
691718VGR.60	18	600 mm	860 mm	50 kg
691721VGR.60	21	600 mm	997 mm	50 kg

Max. distance between the 19" levels (only for installed rear 19" level)			
Housing Depth	Max. Distance of 19" Levels	Max. Mounting Depth to Rear Wall	
400 mm	315 mm	350 mm	
500 mm	415 mm	450 mm	
600 mm	515 mm	550 mm	
For this assembly	For this assembly variant each ca. 40 mm remain from 19" level to rear wall resp. door		



WITH LEVELING FEET OR CASTORS THE HOUSINGS ARE **USABLE AS STANDING OR DESK HOUSING**













19" Wall Housing Swiveling, 2-Part

Steel sheet housing with welded frame, pre-assembled, self-ventilated Rear sided swing-frame for swiveling the front part of the housing

Prepared for Plug & Play 2-fan unit Art.-No. 691656xx

Bottom with 4 x mounting point for leveling feet or castor set (please order separately) Front door with metal hinges for increased stability

Door stop not changeable, but for change door opening side complete housing is rotatable about 180° due to fully symmetrical construction

Pre-punched openings for cable entry optionally from roof or bottom Prepared for mounting of single fan units in roof and bottom Inside front-sided 2 x 19" profile rails, galvanised, depth-adjustable

Front door with window made of certified safety glass

Front door lockable with latch

Internal earthing of all cabinet sections

Paint finish: RAL7035, light grey

Protection degree IP20

Included in delivery: 1 x brush terminal, 1 x set of captive nuts (PU 20 pcs.), 2 x key

Delivery in transport packaging, from 30 kg / 12U on pallet

19" Wall Housing Swiveling, 2-Part, Depth 500 mm

ArtNo.	U	Width	Height	Max. Load
691604VGR.50	4	600 mm	240 mm	30 kg
691606VGR.50	6	600 mm	330 mm	40 kg
691609VGR.50	9	600 mm	465 mm	40 kg
691612VGR.50	12	600 mm	600 mm	40 kg
691615VGR.50	15	600 mm	730 mm	50 kg
691621VGR.50	21	600 mm	997 mm	50 kg

19" Wall Housing Swiveling, 2-Part, Depth 600 mm

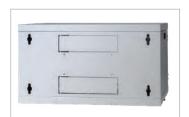
ArtNo.	U	Width	Height	Max. Load
691604VGR.60	4	600 mm	240 mm	30 kg
691606VGR.60	6	600 mm	330 mm	40 kg
691609VGR.60	9	600 mm	465 mm	40 kg
691612VGR.60	12	600 mm	600 mm	40 kg
691615VGR.60	15	600 mm	730 mm	50 kg
691621VGR.60	21	600 mm	997 mm	50 kg



Wall housing 2-part, swiveled out, castor set available as accessory



Roof with rear-sided 100 mm frame, cable entry (250 x 70 mm) and coutouts for plug & play 2-fan unit



Rear side with 2 x cable entry (250 x 70 mm) and openings for wall mounting

Max. distance between the 19" levels (only for installed rear 19" level)		
Housing Depth	Max. Distance of 19" Levels	Max. Mounting Depth to Rear Wall
500 mm	315 mm	450 mm
600 mm 415 mm 550 mm		
For this assembly variant each ca. 40 mm remain from 19" level to rear wall resp. door.		



19" Mounting Rails for Wall Housings 1-Part/2-Part, Set 2 Pieces

For use as rear-sided 19" level in wall housings 1-part/2-part (Art.-No. 6917xxVGR.x/VTS.x and 6916xxVGR.x/VTS.x) Material steel, galvanised Delivery as set of 2 incl. mounting material

ArtNo.	Description
691776.06	19" Mounting Rails 6U for Wall Housings 1-Part/2-Part, Set 2 Pieces
691776.09	19" Mounting Rails 9U for Wall Housings 1-Part/2-Part, Set 2 Pieces
691776.12	19" Mounting Rails 12U for Wall Housings 1-Part/2-Part, Set 2 Pieces
691776.15	19" Mounting Rails 15U for Wall Housings 1-Part/2-Part, Set 2 Pieces
691776.18	19" Mounting Rails 18U for Wall Housings 1-Part/2-Part, Set 2 Pieces
691776.21	19" Mounting Rails 21U for Wall Housings 1-Part/2-Part, Set 2 Pieces



NO MORE CABLING EFFORT:
Plug & Play - Mount and turn on
Integrated thermostat and on/off switch
Mains connection IEC C14 (iec plug)







Fan Unit, 2-Fans for Wall Housings, Plug & Play

Suitable for installation in wall housing series 1-PART/2-PART, FLAT PACK and IP55

Screw mounting hanging inside below the cabinet roof

Thermostat and mounting material included

Rear-sided power connection via IEC C14 socket (power cable not included, e.g. Art.-No. EK504.x)

Rated voltage 230 V / 50 Hz Illuminated on/off switch

Material steel sheet

ArtNo.	Description
691656GR	2-Fan Unit, Plug & Play for Wall Housings, RAL7035
691656TS	2-Fan Unit, Plug & Play for Wall Housings, RAL9005
691656WS	2-Fan Unit, Plug & Play for Wall Housings, RAL9010



Integrated thermostat and on/off switch



Housing variant black in mounting position



Power Cable CEE7/7 90° - C13 180°, black

 $10\;\text{A}\,/\,250\,\text{V}\,\text{VDE}$ tested Suitable for Germany, Belgium, France and further

ArtNo.	Conductor Ø	Colour	Length
EK504.1V2	0.75 mm ²	Black	1.0 m
EK504.2V2	0.75 mm ²	Black	2.0 m





Mounted compact turning handle at wall housing

Compact Turning Handle for Profile Half Cylinder

Enables the use of an individual profile half-cylinder in doors of wall cabinets 1-part/2-part and Flat Pack

Suitable for use with profile half-cylinder acc. to DIN 18252 / EN1303 (e.g. Art.-No. 46087.x)

Easiest mounting, included latch limits the rotation angle to 90° Delivery without profile half-cylinder

ArtNo.	Description
699989	Compact Turning Handle for PHC, incl. Latch



Leveling Feet for 19" Wall Housings 1-Part/2-Part

Leveling feet for cabinet series OFFICE and wall housings 1-part/2-part Thread M8, height 56 mm With locknut

ArtNo.	Description
OFF-NIV01	Leveling Feet for Cabinet Series OFFICE and Wall Housings, 4 Pcs. M8



Castor Set for 19" Wall Housings 1-Part/2-Part

Plastic castors with steel thread bolt M8 Height 68 mm (without thread bolt) Included in delivery: 2 x castor with brake, 2 x castor without brake

ArtNo.	Description
OFF-ROL01	Castor Set for Cabinet Series OFFICE and Wall Housings, 4 Pcs.



















19" Wall Housing 3U+5U Vertical

Steel sheet housing for wall mounting, completely pre-assembled, self-ventilated **Wall raising (overall depth) only 150 mm**

3U for vertical mounting of 19" components, max. depths each 1 x 360 / 340 / 300 mm

5U additionally for horizontally mounting of 19" components, max. depth 80 mm

3U level 180° swiveling

Cover with window, hinged and lockable

Pre-punched ventilation openings in housing

Pre-punched cable clamps in rear wall

Material steel sheet

Paint finish RAL7035, light grey / RAL9005, jet black / RAL9010, white

Protection degree IP20

Included in delivery: 1 x key



The swiveling 19" level enables different mounting positions and -depths up to 360 mm



Extremely low space requirement due to the height of only 150 mm



Rear side with various possibilities for fixing and cable entry

ArtNo.	U	Width	Height	Colour
691703V	8	537 mm	475 mm	RAL7035
691703VTS	8	537 mm	475 mm	RAL9005
691703VWS	8	537 mm	475 mm	RAL9010



Application example 1: 19" level in upright position, 3U with mounting depth up to 360 mm are usable



Application example 2: 19" level is angled, 3U with mounting depth up to 140 mm and 4U rear sided are usable







Wall housing opened , rear-sided the cutouts for 2 x single fan Art.-No. 691664





19"/10" Wall Mount Cabinet 5U Vertical / 10U Horizontal

Steel sheet housing 5U vertical, completely pre-assembled Front-sided 19" level made of punched profile Front door with window made of certified safety glass (thickness 4 mm) Front door with latch

Left side wall hinged for easy access

Right side wall with holes for wall mounting

Rear wall screwed, prepared for mounting of 2 fan units

Internal earthing of all cabinet sections

Additional earthing bolt M6 inside the housing

Pre-punched openings (250 x 60 mm) for cable entry from roof or bottom

Paint finish RAL7035, light grey

Protection degree IP20

Included in delivery: 2 x brush terminal, 1 x set of captive nuts (20 pcs.), 2 x key

Delivery in transport packaging



Cable entry with brush





Various mounting options

Central grounding bolt M5

ArtNo.	U	Width	Height	Depth
691706V	5	322 mm	543 mm	500 mm





19" 4U Mini Network Frame

The mini network frame is the ideal component for accommodating 19" components in smaller networking solutions Sturdy sheet steel frame, non-slip Dimensions: (W x H x D) 490 x 230 x 295 mm

ArtNo.	Description	
699996	19" 4U Mini Network Frame, RAL7035	

Application example (Delivery without components)

19" Wall Brackets, Depth-Adjustable, RAL7035 Light Grey

ArtNo.	U	Width	Height	Max. Load
691831GR.2	2	528 mm	89 mm	5 kg
691831GR.3	3	528 mm	134 mm	10 kg
691831GR.4	4	528 mm	178 mm	10 kg
691831GR.6	6	528 mm	267 mm	15 kg
691831GR.9	9	528 mm	400 mm	15 kg

19" Wall Brackets, Depth-Adjustable, RAL9005 Jet Black

ArtNo.	U	Width	Height	Max. Load
691831TS.2	2	528 mm	89 mm	5 kg
691831TS.3	3	528 mm	134 mm	10 kg
691831TS.4	4	528 mm	178 mm	10 kg
691831TS.6	6	528 mm	267 mm	15 kg
691831TS.9	9	528 mm	400 mm	15 kg

19" Wall Brackets, Depth-Adjustable, RAL9010 Pure White

ArtNo.	U	Width	Height	Max. Load
691831WS.2	2	528 mm	89 mm	5 kg
691831WS.3	3	528 mm	134 mm	10 kg
691831WS.4	4	528 mm	178 mm	10 kg
691831WS.6	6	528 mm	267 mm	15 kg
691831WS.9	9	528 mm	400 mm	15 kg





The mounting depth of the wall brackets is adjustable













19" Wall Brackets, Depth-Adjustable

 $19\mbox{\ensuremath{\mbox{\tiny "}}}$ wall bracket with adjustable mounting depth (225 .. 345 mm) Material steel

Paint finish RAL7035, light grey / RAL9005, jet black / RAL9010, pure white



Single Fan Unit for Wall Housing

Prepared for mounting in bottom or roof of all 19" wall-mounting cabinets 1-part and 2-part

Mounting material for fixing, power supply and earthing included Rated voltage: 230 V, 50 Hz

ArtNo.	Description
691664	Fan for 19" Wall Mounting Cabinets, 120 mm, 230 V / 50 Hz



Thermostat

Suitable for roof fan unit and single fan units Adjustable range -10°C .. +80°C Mounting at the 19" profiles

ArtNo.	Description
691642.1	Thermostat incl. Bracket, for Fan Units 69165xV3 or Single Fan 691664



Filter Panel for 691664F

Filter Panel 120 mm for single fan Art.-No. 691664

ArtNo.	Description
691664F	Filter Panel for 691664, Mounting on 120 mm Fan



Power Cable Schuko 90° - Open End WES, black

16 A / 250 V VDE tested

Open End assembled with wire end sleeves

Wire end sleeves for 1.8 m: L = 6 mm, \oslash 1.7 mm, yellow insulator Wire end sleeves for 3 + 5 m: L = 8 mm, \oslash 1.7 mm, red insulator Cable colour black

Suitable for Germany, Belgium, France and further

ArtNo.	Conductor Ø	Colour	Length
EK504AE.1,8	0.75 mm ²	Black	1.8 m
EK504AE.3	1.00 mm ²	Black	3.0 m
EK504AE.5	1.00 mm ²	Black	5.0 m







Delivery in transport packaging



10" Wall Housings, Depth 300 mmSelf-ventilated steel sheet housing, welded

Front door lockable, with latch, door opening angle > 180°
Front door with window made of certified safety glass (4 mm)
2 x 10" profile rails, depth adjustable, usable mounting depth 203..263 mm
Cable entry possible from top, bottom (opening 44 x 115 mm) or rear-sided (177 x 280 mm)
Bottom with 4 x thread for leveling feet M8 (Art.-No. OFF-NIV01)
Roof with pre-punched opening for single fan
Long holes for wall mounting
Max. load 60 kg
Paint finish RAL7035, light grey / RAL9005 jet black
Included in delivery: 2 x brush, 2 x key



Wide cable entry at the rear side (177 x 280 mm)



ArtNo.	U	Width	Height	Colour
691803GR.4	4	300 mm	234 mm	RAL7035
691803GR.6	6	300 mm	322 mm	RAL7035
691803GR.9	9	300 mm	455 mm	RAL7035
691803TS.4	4	300 mm	234 mm	RAL9005
691803TS.6	6	300 mm	322 mm	RAL9005
691803TS.9	9	300 mm	455 mm	RAL9005



Application example (Delivery without components)





Mini Rack 10"

Self-ventilated steel sheet housing

Front door with window made of safety glass (4 mm)

Door opening angle 180°, lockable door lock with latch

The special construction of the door prevents possible kinking of the inserted patch cables

Max. mounting depth of 10" components 155 mm

Cable infeed optionally from top or bottom, openings 120 mm x 35 mm

Slots for wall mounting

Material steel sheet, paint finish RAL7035, light grey

Delivery in transport packaging

ArtNo.	U	Width	Height	Colour
691801	7	300 mm	355 mm	RAL7035







10" 1U Shelf

Placing area in the 10" level e.g. for routers Material steel sheet Paint finish RAL7035, light grey / RAL9005, jet black

ArtNr.	Description	Colour
691820GR.1	10" 1U Shelf	RAL7035
691820TS.1	10" 1U Shelf	RAL9005





10" 1U Dummy Plate

Material steel sheet

Paint finish RAL7035, light grey / RAL9005, jet black

ArtNo.	Description	Colour
691821	10" 1U Blanking Panel	RAL7035
691821TS	10" 1U Blanking Panel	RAL9005





10" 1U Distribution Panel for 12 x Keystone

With rear-sided cable bracket Material steel sheet Paint finish RAL7035, light grey / RAL9005, jet black Delivery unassembled

ArtNo.	Description	Colour
691826	10" 1U Distribution Panel for 12 x Keystone	RAL7035
691826TS	10" 1U Distribution Panel for 12 x Keystone	RAL9005







10" 1U Cable Routing Panel

For cable routing at the 10" level With 3 plastic brackets, bracket length ca. 70 mm Material steel sheet Paint finish RAL7035, light grey / RAL9005, jet black

ArtNo.	Description	Colour
691820GR.2	10" 1U Cable Routing Panel	RAL7035
691820TS.2	10" 1U Cable Routing Panel	RAL9005





691824

Delivery unassembled (without adapters)

10" 1U FO Front Panels

Material steel sheet Paint finish RAL7035, light grey / RAL9005, jet black Delivery unassembled

ArtNo.	Description	Colour
691822	10" 1U FO Front Panel 8 x SC simplex	RAL7035
691824	10" 1U FO Front Panel 8 x SC Duplex	RAL7035



SOCKET STRIPS IN 10" FORMAT ON PAGE 254

PATCH PANELS IN 10" FORMAT ON PAGE 150

ACTIVE COMPONENTS IN 10" FORMAT ON PAGE 315

AN EVEN WIDER CHOICE CAN BE FOUND IN OUR ONLINE SHOP!



Roof Fan Units P. 231 P. 232 Fans, Heater, Thermostat P. 233 **Lighting Units** DIN Rail Holder, Energy Distribution Box, Sliding Rails P. 234 P. 236 Shelves **Keyboard & Document Drawers** P. 239 Cable Management P. 240 **Dummy Plates** P. 245 Earthing & Locking Accessories P. 246 Cage Nuts & 19" Labeling System P. 247

// YOU MIGHT ALSO BE INTERESTED IN:

FO Jumper Cable	P. 79
Active Components (Switches etc.)	P. 312







Roof Fan 2-/4-Way for PRO, incl. Thermostat

Fan unit with integrated thermostat for use in roof of cabinets PRO

For 4-fan variant: $\overline{\bf 3}$ -stage switch (0/I/II) for speed reduction ("Silent-Mode") for especially quietly operation

For 2-fan variant: ON/OFF switch

Easy mounting at prepared opening A (380 x 380 mm) hanging at cabinet roof

Power connector IEC C14, power cable please order separately, e.g. Art.-No. EK504.xV2

Housing material plastic

Paint finish RAL7035, light grey / RAL9005, jet black

Scope of delivery: fan unit incl. thermostat, mounting accessories

ArtNo.	Description	No. of Fans	Air Flow, Free-Blowing	Noise Level	Remark	Colour
PRO-LFD04AT.GR	Roof Fan 2-/4-Way for PRO & ESV, Opening A, incl. Thermostat	4	660 (Silent Mode: 330) m ³ /h	54 (Silent Mode: 44) dB(A)	Switchable Silent Mode	RAL7035
PRO-LFD02AT.GR	Roof Fan 2-/4-Way for PRO & ESV, Opening A, incl. Thermostat	2	330 m ³ /h	48 dB(A)		RAL7035
PRO-LFD04AT.TS	Roof Fan 2-/4-Way for PRO & ESV, Opening A, incl. Thermostat	4	660 (Silent Mode: 330) m ³ /h	54 (Silent Mode: 44) dB(A)	Switchable Silent Mode	RAL9005
PRO-LFD02AT.TS	Roof Fan 2-/4-Way for PRO & ESV, Opening A, incl. Thermostat	2	330 m ³ /h	48 dB(A)		RAL9005







Roof Fan 2-Way for Co Location PRO and EFB-Server

Fan unit with integrated thermostat for use in roof of cabinets Co Location PRO and EFB-Server $\,$

Easy mounting at prepared opening B (210 x 380 mm) hanging at cabinet roof Housing material steel sheet

Paint finish RAL7035, light grey / RAL9005, jet black

Scope of delivery: fan unit incl. thermostat, mounting accessories

ArtNo.	Description	No. of Fans	Air Flow, Free-Blowing	Noise Level	Colour
PRO-LFD02BT.GR	Roof Fan 2-Way, with Thermostat, for Co Location PRO and ESV	2	330 m³/h	48 dB(A)	RAL7035
PRO-LFD02BT.TS	Roof Fan 2-Way, with Thermostat, for Co Location PRO and ESV	2	330 m ³ /h	48 dB(A)	RAL9005





Cabinet Heater 200/400 W

Compact heating module with fan Fan output $10 \text{ m}^3/\text{h}$ 2 output levels (heating output), controlled via connection type Independent circuit for the fan Scope of delivery: heater, DIN rail $35 \times 7.5 \text{ mm}$, $2 \times \text{holders}$, screw terminals for connection

ArtNo.	Description
691657.1	Cabinet Heater 200/400 W, DIN-Rail Mounting



Prepared for mounting in bottom or roof of all 19" wall-mounting cabinets 1-part and 2-part

Mounting material for fixing, power supply and earthing included Rated voltage: 230 V, 50 Hz

ArtNo.	Description
691664	Single Fan Unit for Wall Housing



19" 1U Temperature Controller, Electronic, 2 Relais

Control of a fan at overtemperature (via relais 1)
Control of a second fan at overtemperature (via relais 2)
Control of a heater at undertemperature (via relais 1)
Control of a fan at overtemperature (via relais 2)
Digital temperature display (actual value)
Measuring range: -40°C up to +90°C

Outputs: 2 relais, dry, programmable (250 V AC / 2 A) Free programmable switching temperatures

Display of relay status

Type of sensor: diode, cable length 3 m

Power supply: 230 V / 50 Hz

Connection via rear-sided screw terminals

Recommended Accessory (not included): power cable Euro-Open End with wire-end sleeves Art.-No. EK502AE.x

ArtNo.	Description
691642T.1	19" 1U Electronic Temperature Controller, 2 Relais, RAL7035
691642TTS.1	19" 1U Electronic Temperature Controller, 2 Relais, RAL9005



Thermostat

Art.-No. 691642.1 for control of fan units (blue button) Art.-No. 691642.2 for control of heaters (red button)

Adjustable range -10°C .. +80°C Mounting at the 19" profiles

Thermostat and mounting material are included in delivery of the roof fan units

ArtNo.	Description
691642.1	Thermostat incl. Bracket, for Fan Units 69165xV3 or Single Fan 691664
691642.2	Thermostat incl. Bracket, for Heater 691657.1









LED Magnetic Lighting Unit, 230 V AC with IR-Sensor and Switch

LED lighting unit in high-quality aluminium profile for magnetic mounting at any position in cabinet

Selective lighting due to turnable magnetic holder (turning angle ca. 180°)

IR sensor replaces door contact switch: lighting unit is turned on for 45 sec. at motion detection

Self-adhesive sensor and power supply for easy mounting in cabinet

At glass and non-perforated steel doors the sensor can be easily glued directly onto the 19" profile for turning light on when door is opened, for perforated doors mounting sidely in the cabinet, e.g. at a depth-rail, is recommended Technical Data LED:

24 x LED type 5730

This lighting unit contains a light source in energy efficiency class F LED light colour warm white, colour temperature 3500 K, Luminosity 420 Lm, Colour rendering index Ra > 80

Technical Data LED Driver: Input 100 .. 240 V AC, 50/60 Hz, 0.6 A Output 24 V DC, 1250 mA, 30 W max. Dimensions (LxWxH) 115 x 45 x 28 mm, Material plastic, white

Technical Data Sensor: Detection radius 1.2 m Switch-on time 45 s

Dimensions (LxWxH) 40 x 20 x 10 mm, Material plastic, white

ArtNo.	Description
698026.1	Set of LED Lighting Unit + Connection Kit 230 V AC, IR-Sensor, Switch



Cascading Cable for LED Lighting 698026.x

For connecting up to 6 pieces of LED magnetic lighting units 698026.x Cable length 1.25 m
Reverse polarity protected plug/jack

Colour cable white, plugs grey

Art.-No. Description
698026.3 Cascading Cable 1.25 m, White, for LED Unit 698026.x





19" 1U Lighting Unit "Basic LED"

Ready-to-connect lighting unit 19" 1U

For horizontal mounting in the 19" level of network and server cabinets Operating voltage 100 .. 240 V AC, 8 W

This lighting unit contains a lighting source in energy efficiency class E LED light colour warm-white, light output 800 Lm, Ra > 80 Materials holder stainless steel, body aluminium, cover plastic

Dimensions (WxHxD) 480 x 44 x 26 mm

Dielivery incl. power cable 2 m white, with Euro plug and switch

ArtNo.	Description
698023.3	19" 1U Lighting Unit "Basic LFD"



Cable Set PRO for Lighting Unit "Basic", incl. Door Contact Switch

Suitable for cabinet series PRO (not for CLASSIC)

Plug & Play - no further wiring work necessary!

Connection set Euro plug to Euro-8 jack incl. door contact switch and mounting bracket

Suitable $\bar{\text{for}}$ connection and control of lighting unit "Basic" or other devices with Euro-8 plug

Completely prewired as opener (NC) (door opening switches lighting unit on)

Cable H03VVH2-F 2G 0,75 mm², 2 m + 1 m Lighting unit not included in delivery

ArtNo.	Description
PRO-TKS01	Connection Set PRO for Lighting Unit "Basic", incl. Door Contact Switch



19" 4U Universal DIN-Rail Holder

For carrying DIN rail components

Also suitable for wall- and ceiling mounting

DIN rail according to DIN EN 60715 TH35 (35 x 7.5 mm) Width of DIN rail 435 mm

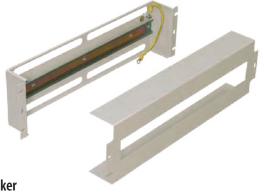
DIN rail depth-adjustable from ca. 55 .. 165 mm (step-less) Rear-sided C-rail for cable fixing, height-adjustable

DIN-rail is mountable also horizontally



Application example - delivery without components

ArtNo.	Description
53719.1V2	19" 4U Universal DIN Rail Holder







Application example - delivery without components

19" 3U Power Distribution/Circuit Braker

For carrying DIN rail modules like circuit breakers, outlets etc. Capacity 22 modules to 17.5 mm Front opening 402.5 x 45.5 mm Rear-sided earthing bolt M5 incl. cable Dimensions (W x H x D) 482.6 x 133 x 60 mm Material steel sheet

Paint finish RAL7035, light grey / RAL9005, jet black

Mounting note: For easy opening and closing of the front cover, a captive nut M6 should be installed behind the left & right cover screw.

ArtNo.	Description
691277.1V2	19" 3U Power Distribution/Circuit Braker Housing for 22 Modules 17.5 mm, RAL7035
691277TS.1V2	19" 3U Power Distribution/Circuit Braker Housing for 22 Modules 17.5 mm, RAL9005



DIN Rail for 19" Mounting

Dimensions 483 x 35 x 7.5 mm With 2 x 19" mounting holes Material steel, galvanised

ArtNo.	Description
691274.1V2	DIN Rail 35 x 7.5 mm for 19" Mounting





Socket Outlet 1-Way for DIN-Rail

Outlet with protective contact for mounting at DIN-rail TS35 ("Hat Rail") Rated voltage/ current 250 V / 16 A Wire max. 10 $\rm mm^2$

Colour grey (red,yeloow ertc. on request)

ArtNo.	Description
EK633.1	Outlet 1-Way for DIN-Rail, Grey
EK633.2	Outlet 1-Way for DIN-Rail, with Cover, Grey
EK633.3	Outlet 1-Way for DIN-Rail, France (UTE), Grey





19" 5U Tablet Holder, RAL7035

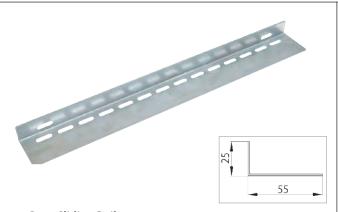
Module for vertical carrying of 16, 20 or 27 devices like tablets, laptops etc. Available capacities: 16 trays of 22 mm each, 20 trays of 16.3 mm each or 27 trays of 10.5 mm each

Stainless steel brackets adjustable for different tray widths Soft standing area and edge protection for avoiding of scratches Rear-sided cable entries incl. edge protection for charging cables Material steel, brackets stainless steel Paint finish RAL7035, light grey

ArtNo.	Description	Trays	Colour
691777GR.1	19" 5U Tablet Holder	16 x 22 mm	RAL7035
691777GR.2	19" 5U Tablet Holder	20 x 16 mm	RAL7035
691777GR.3	19" 5U Tablet Holder	27 x 10 mm	RAL7035







Heavy-Duty Sliding Rails

For mounting of heavy devices in network or server cabinets Mounting at the front and rear-sided 19" profiles Max. load 100 kg Material steel sheet PU 2 pieces

ArtNo.	Depth	For Cabinet Depth	Max. Load
PRO-SGL06	350 mm	600 mm	100 kg
PRO-SGL08	550 mm	800 mm	100 kg
PRO-SGL10	750 mm	1000 mm	100 kg
PRO-SGL12	950 mm	1200 mm	100 kg



Sliding Rails, Telescopic

For mounting of heavy devices e.g. servers Telescopic extendable Material steel, galvanised Max. load 50 kg Delivery as set of 2 left/right

ArtNo.	Depth	For Cabinet Depth	Max. Load
PRO-GLT06	350 – 600 mm	600 - 800 mm	50 kg
PRO-GLT08	550 – 900 mm	800 - 1000 mm	50 kg
PRO-GLT10	850 – 1150 mm	1000 - 1200 mm	50 kg



Do you know the problem?

Two hands hold the switch, the server, patch panel or the UPS which is to be mounted straight into the 19" rack. How to install the screws? Now you would need a "third hand" because releasing is impossible!

This mounting aid supports you while installing 19" components. It is fixed at one or two sides of the 19" profile, to reliably hold devices while mounting into the cabinet. So one or two hands remain free for working. No second person is necessary anymore.



Application example

Mounting Aid,,3rd Hand"

Supports 19" components while installation Suitable for all 19" profiles Very solid design Material steel sheet, galvanised Delivery as set of 2 pieces

ArtNo.	Description
39850.1	Mounting Aid for 19" Components, 2 Pieces in Set









19" 1U Shelves, Depth 150 / 250 mm, 5/10 kg

Shelves with fixed depth for 19" mounting Optional rear-sided mounting brackets and lashing strap for devices available Paint finish RAL7035, light grey / RAL9005, jet black Delivery incl. mounting accessories

ArtNo.	Description	Depth	Max. Load	Colour
691650GR.1A	19" 1U Shelve	150 mm	5 kg	RAL7035
691650GR.1B	19" 1U Shelve	250 mm	10 kg	RAL7035
691650TS.1A	19" 1U Shelve	150 mm	5 kg	RAL9005
691650TS.1B	19" 1U Shelve	250 mm	10 kg	RAL9005







19" 2U Shelves, Depth 300 / 400 mm, 22 kg

Shelves with fixed depth for 19" mounting

Optional rear-sided mounting brackets and lashing strap for devices available Paint finish RAL7035, light grey / RAL9005, jet black Delivery incl. mounting accessories

ArtNo.	Description	Depth	Max. Load	Colour
691650GR.2A	19" 2U Shelve	300 mm	22 kg	RAL7035
691650GR.2B	19" 2U Shelve	400 mm	22 kg	RAL7035
691650TS.2A	19" 2U Shelve	300 mm	22 kg	RAL9005
691650TS.2B	19" 2U Shelve	400 mm	22 kg	RAL9005







19" 3U Shelves, Depth 450 mm, 36 kg

Shelves with fixed depth for 19" mounting Optional rear-sided mounting brackets and lashing strap for devices available Paint finish RAL7035, light grey / RAL9005, jet black Delivery incl. mounting accessories

ArtNo.	Description	Depth	Max. Load	Colour
691650GR.3	19" 3U Shelve	450 mm	36 kg	RAL7035
691650TS.3	19" 3U Shelve	450 mm	36 kg	RAL9005





Brackets Set for Shelves 1/2/3U, Art.-No. 691650xx

For rear-sided mounting of the shelves Art.-No. 691650xx.x Material steel sheet

Paint finish RAL7035, light grey / RAL9005, jet black Delivery incl. mounting accessories

ArtNo.	ArtNo. Description	
691650GR.W	Brackets Set for Shelves 1/2/3U, ArtNo. 691650xx	RAL7035
691650TS.W	Brackets Set for Shelves 1/2/3U, ArtNo. 691650xx	RAL9005



Lashing Strap for Shelves 1/2/3U

For secureing loose parts or devices against falling For use with the shelves 691650xx.x Fixing at the lateral slots of the shelves Length Material plastic, hook and loop tape, 2 stripes ca. 48 cm each

_	
ArtNo.	Description
691650 S	Laching Stran for Shelves 1/2/311









19" 2U Pull-Out Shelves, Front Mounting, Max. Load 20 kg

For use in all 19" network and server cabinets For fixing at the front sided 19" profiles Material steel sheet Paint finish RAL7035, light grey / RAL9005, jet black Scope of delivery: 1 x shelf incl. mounting accessories

ArtNo.	Usable Depth	Max. Load	Colour
691667GR.2A	355 mm	20 kg	RAL7035
691667GR.2B	455 mm	20 kg	RAL7035
691667GR.2C	555 mm	20 kg	RAL7035
691667TS.2A	355 mm	20 kg	RAL9005
691667TS.2B	455 mm	20 kg	RAL9005
691667TS.2C	555 mm	20 kg	RAL9005







19" 1U Shelves, Fixed, Max. Load 120 kg

For use in all 19" network and server cabinets
Fixing at the front and rear-sided 19" profiles necessary
Mounting depth rear-sided adjustable (+0 .. 100 mm)
Material steel sheet

Paint finish RAL7035, light grey / RAL9005, jet black Scope of delivery: 1 x shelf incl. mounting accessories

ArtNo.	Depth	For Cabinet Depth	Max. Load	Colour
691651FGR.6	350 mm	600 mm	120 kg	RAL7035
691651FGR.8	550 mm	800 mm	120 kg	RAL7035
691651FGR.10	750 mm	1000 mm	120 kg	RAL7035
691651FGR.12	950 mm	1200 mm	120 kg	RAL7035
691651FTS.6	350 mm	600 mm	120 kg	RAL9005
691651FTS.8	550 mm	800 mm	120 kg	RAL9005
691651FTS.10	750 mm	1000 mm	120 kg	RAL9005
691651FTS.12	950 mm	1200 mm	120 kg	RAL9005







19" 1U Pull-Out Shelves, Max. Load 30 kg

For use in all 19" network and server cabinets Fixing at the front and rear-sided 19" profiles necessary Mounting depth rear-sided adjustable (+0 .. 100 mm) Material steel sheet

Paint finish RAL7035, light grey / RAL9005, jet black Scope of delivery: 1 x shelf incl. mounting accessories

Depth	Max. Pull-Out	For Cabinet Depth	Colour
350 mm	350 mm	600 mm	RAL7035
550 mm	550 mm	800 mm	RAL7035
750 mm	750 mm	1000 mm	RAL7035
950 mm	950 mm	1200 mm	RAL7035
350 mm	350 mm	600 mm	RAL9005
550 mm	550 mm	800 mm	RAL9005
750 mm	750 mm	1000 mm	RAL9005
950 mm	950 mm	1200 mm	RAL9005
	350 mm 550 mm 750 mm 950 mm 350 mm 550 mm	350 mm 350 mm 550 mm 550 mm 750 mm 750 mm 950 mm 950 mm 350 mm 350 mm 550 mm 550 mm	350 mm 350 mm 600 mm 550 mm 550 mm 800 mm 750 mm 750 mm 1000 mm 950 mm 950 mm 1200 mm 350 mm 350 mm 600 mm 550 mm 550 mm 800 mm 750 mm 750 mm 1000 mm







19" 1U Shelves with Cable Rounting, Max. Load 120 kg

For use in all 19" network and server cabinets With front-sided cable entries and cable routing brackets Fixing at the front and rear-sided 19" profiles necessary Mounting depth rear-sided adjustable (+0 .. 100 mm) Material steel sheet

Paint finish RAL7035, light grey / RAL9005, jet black Scope of delivery: 1 x shelf incl. mounting accessories

ArtNo.	Depth	For Cabinet Depth	Max. Load	Colour
691651KGR.6	350 mm	600 mm	120 kg	RAL7035
691651KGR.8	550 mm	800 mm	120 kg	RAL7035
691651KGR.10	750 mm	1000 mm	120 kg	RAL7035
691651KGR.12	950 mm	1200 mm	120 kg	RAL7035
691651KTS.6	350 mm	600 mm	120 kg	RAL9005
691651KTS.8	550 mm	800 mm	120 kg	RAL9005
691651KTS.10	750 mm	1000 mm	120 kg	RAL9005
691651KTS.12	950 mm	1200 mm	120 kg	RAL9005









19" 0.5U Shelves, Fixed, Max. Load 70 kg

For use in all 19" network and server cabinets Fixing at the front and rear-sided 19" profiles necessary Mounting depth rear-sided adjustable (+0 .. 100 mm) Material steel sheet

Paint finish RAL7035, light grey / RAL9005, jet black Scope of delivery: 1 x shelf incl. mounting accessories

ArtNo.	Depth	For Cabinet Depth	Max. Load	Colour
691641FGR.6	350 mm	600 mm	70 kg	RAL7035
691641FGR.8	550 mm	800 mm	70 kg	RAL7035
691641FGR.10	750 mm	1000 mm	70 kg	RAL7035
691641FGR.12	950 mm	1200 mm	70 kg	RAL7035
691641FTS.6	350 mm	600 mm	70 kg	RAL9005
691641FTS.8	550 mm	800 mm	70 kg	RAL9005
691641FTS.10	750 mm	1000 mm	70 kg	RAL9005
691641FTS.12	950 mm	1200 mm	70 kg	RAL9005





19" 1U Heavy-Duty Shelves, Depth-Adjust., Max. Load 150 kg

For use in all 19" network and server cabinets Fixing at the front and rear-sided 19" profiles necessary Mounting depth adjustable with self-tapping screws Material steel sheet

Paint finish RAL7035, light grey / RAL9005, jet black Scope of delivery: 1 x shelf incl. mounting accessories

ArtNo.	Depth	For Cabinet Depth	Max. Load	Colour
691653GR.6	350 – 600 mm	600 mm	150 kg	RAL7035
691653GR.80	500 – 900 mm	800 - 1000 mm	150 kg	RAL7035
691653TS.6	350 – 600 mm	600 mm	150 kg	RAL9005
691653TS.80	500 – 900 mm	800 - 1000 mm	150 kg	RAL9005









Heavy-Duty Pull-Out Shelf, Max. Load 140 kg

For mounting in 1000 or 1200 mm deep cabinets PRO or EFB-Server Side mounting on 6 x 19" profiles (additional middle profiles necessary, Art.-No. PRO-MPRxx resp. ESV-MPRxx

Material steel sheet

Paint finish RAL7035, light grey / RAL9005, jet black Scope of delivery: 1 x shelf incl. mounting accessories

ArtNo.	Usable Depth	For Cabinet Depth	Max. Load	Colour
691640AGR.02	700 mm	1000 - 1200 mm	140 kg	RAL7035
691640ATS.02	700 mm	1000 - 1200 mm	140 kg	RAL9005





Heavy-Duty Shelf, Fixed, Max. Load 200 kg

For mounting in 1000 or 1200 mm deep cabinets PRO or EFB-Server Mounting on 6 x 19" profiles (additional middle profiles necessary, Art.-No. PRO-MPRxx resp. ESV-MPRxx

Material steel sheet

Paint finish RAL7035, light grey / RAL9005, jet black Scope of delivery: 1 x shelf incl. mounting accessories

ArtNo.	Depth	For Cabinet Depth	Max. Load	Colour
691640FGR.02	700 mm	1000 - 1200 mm	200 kg	RAL7035
691640FTS.02	700 mm	1000 - 1200 mm	200 kg	RAL9005





19" 1U Keyboard Drawer, Touchpad, Lockable

Very solid keyboard drawer incl. keyboard and touchpad For installation in 19" cabinets, ball-beared keyboard drawer

Connection via USB, cable length 2 m

Industrial keyboard with normal sized keys and Windows function keys Integrated touchpad with 2 mouse keys

Safety lock with two keys, solid metal handle

Paint finish RAL7035, light grey / RAL9005, jet black

Delivery incl. mounting accessories

Optional: 2 x mounting rail incl. screws for additional fixing onto the rearsided profiles

Also available with US Layout

ArtNo.	Description	Weight	Colour
691649.1TP	19" 1U Keyboard Drawer DE, Touchpad, Lockable	5.3 kg	RAL7035
691649TS.1TP	19" 1U Keyboard Drawer DE, Touchpad, Lockable	5.3 kg	RAL9005
691649TS.1TP-US	19" 1U Keyboard Drawer US, Touchpad, Lockable	5.3 kg	RAL9005





19" 1U Keyboard Drawer, Trackball, Lockable

Very solid keyboard drawer incl. keyboard and trackball For installation in 19" cabinets, ball-beared keyboard drawer Connection via USB and PS/2, cable length 2 m Industrial keyboard with normal sized keys and Windows function keys Integrated optical trackball 14 mm with 2 mouse keys Safety lock with two keys, solid metal handle Paint finish RAL7035, light grey / RAL9005, jet black

Delivery incl. mounting accessories

Optional: 2 x mounting rail incl. screws for additional fixing onto the rearsided profiles

ArtNo.	Description	Weight	Colour
691649.1	19" 1U Keyboard Drawer DE, Touchpad, Lockable	6.3 kg	RAL7035
6016/0TC 1	10" 111 Keyboard Drawer DE Touchnad Lockable	6.3 kg	PALONO5





Rear-Sided Mounting Set for Keyboard Drawer

Rear-sided 19" mounting rails for 1U keyboard drawer Art.-No. 691649.1 and 691649.1TP

Paint finish RAL7035, light grey / RAL9005, jet black Scope of delivery 2 x mounting rails, 4 x screw + nut, 8 x nut

ArtNo.	Description	Colour
691649.1B	Rear-Sided Mounting Set for Keyboard Drawer	RAL7035
691649TS.1B	Rear-Sided Mounting Set for Keyboard Drawer	RAL9005





19" 2U Keyboard Drawer, Lockable

19" 2U Keyboard drawer, telescopic pull-out Lockable, 2 keys included Suitable for all 19" network and server cabinets Usable width 410 mm, depth 320 mm, pull-out 180 mm Material steel sheet

Paint finish RAL7035, light grey / RAL 9005 jet black

Weight 6.1 kg

Suitable keyboard Art.-No. 691680.1, please order separately

ArtNo.	Description	Colour
691649	19" 2U Keyboard Drawer, Lockable	RAL7035
691649TS	19" 2U Keyboard Drawer, Lockable	RAL9005



19" Document Drawers 1-3U, Lockable

Pull-out document drawer Lockable, 2 keys included in delivery Inner dimensions (W x D): ca. 388 x 278 mm Paint finish RAL7035, light grey / RAL9005, jet black

ArtNo.	Description	U	Colour
691646	19" Document Drawer, Lockable	1	RAL7035
691646.1	19" Document Drawer, Lockable	2	RAL7035
691646.2	19" Document Drawer, Lockable	3	RAL7035
691646TS	19" Document Drawer, Lockable	1	RAL9005
691646TS.1	19" Document Drawer, Lockable	2	RAL9005
691646TS.2	19" Document Drawer, Lockable	3	RAL9005



Circuit Diagram Bag DIN A4

Plastic circuit diagram bag For format DIN A4 With adhesive tapes for fixing Dimensions: (W) x (H) x (D) 232 x 220 x 30 mm Colour similar RAL7035, light grey

ArtNo.	Description
699997	Diagram Bag DIN A4, Plastic



Cable Routing Panel & Brackets P. 241 Cable Tidy Rails P. 244 Dummy Plates P. 245 Grounding/Earthing Accessories P. 246 Cage Nuts & 19" Labeling System P. 247

// YOU MIGHT ALSO BE INTERESTED IN:

Copper Patchcables	P. 130
19" Wall Housings	P. 220

CABLE ROUTING PANELS, CABLE ROUTING BRACKETS | CABLE MANAGEMENT





single bracket 75 mm



19" 1U Cable Routing Panel, 5 x Metal Bracket

For clear and orderly cable routing in the 19" level Especially solid steel brackets, diameter 5 mm Bracket turnable in steps of 90° Bracket length 75 or 110 mm Material bracket + panel steel, holder PA Colour RAL7035, light grey / RAL9005, jet black

ArtNo.	Description	Bracket Length	Colour
699980.1	19" 1U Cable Routing Panel, 5 x Metal Bracket	75 mm	RAL7035
699980.2	19" 1U Cable Routing Panel, 5 x Metal Bracket	110 mm	RAL7035
699980TS.1	19" 1U Cable Routing Panel, 5 x Metal Bracket	75 mm	RAL9005
699980TS.2	19" 1U Cable Routing Panel, 5 x Metal Bracket	110 mm	RAL9005



19" 1U Cable Routing Panel, 5 x Metal Double Brackets

For clear and orderly cable routing in the 19" level Especially solid steel double brackets, diameter 5 mm Bracket turnable in steps of 90° Bracket length 75 or 110 mm Material bracket + panel steel, holder PA Colour RAL7035, light grey / RAL9005, jet black

ArtNo.	Description	Bracket Length	Colour
699981.1	19" 1U Cable Routing Panel, 5 x Metal Double Brackets	75 mm	RAL7035
699981.2	19" 1U Cable Routing Panel, 5 x Metal Double Brackets	110 mm	RAL7035
699981TS.1	19" 1U Cable Routing Panel, 5 x Metal Double Brackets	75 mm	RAL9005
699981TS.2	19" 1U Cable Routing Panel, 5 x Metal Double Brackets	110 mm	RAL9005



19" 1U Cable Routing Panel, 5 x Plastic Bracket

For clear and orderly cable routing in the 19" level Especially rounded brackets for securing the bending radius of FO cables Bracket turnable in steps of 90° Bracket length 56 mm

Material panel steel, brackets plastic Colour RAL7035, light grey / RAL9005, jet black









Cable Routing Brackets

For orderly and clear cable routing Mounting on the side of the 19" profile rails Material steel, galvanised

ArtNo.	Description
699991.1	Cable Routing Bracket 40 x 40 mm
699991.2	Cable Routing Bracket 40 x 80 mm
699991.3	Cable Routing Bracket 80 x 80 mm
699991.4	Cable Routing Bracket 80 x 120 mm





Cable routing bracket for mounting at the front side or lateraly at the 19" level

Lateral offset mounting plate enables access to all ports of 19" devices (e.g. patch panel, switches, etc.)

Screw mounting in 1U or in the lateral openings of the 19" profile rails Material steel, galvanised

ArtNo.	Description
699991.15	Cable Routing Bracket 40 x 40 mm with Lateral Offset Mounting Plate
699991.25	Cable Routing Bracket 40 x 80 mm with Lateral Offset Mounting Plate
699991.35	Cable Routing Bracket 80 x 80 mm with Lateral Offset Mounting Plate









19" 1U Cable Routing Panel, 5 Brackets, Plastic

For orderly and clear cable routing in the 19" level Material plastic

Colour RAL7035, light grey / RAL9005, jet black

ArtNo.	Description	Bracket Length	Colour
699992	19" 1U Cable Routing Panel, 5 Brackets, Plastic	70 mm	RAL7035
699992TS	19" 1U Cable Routing Panel, 5 Brackets, Plastic	70 mm	RAL9005



19" 1U Cable Routing Panel, 4 Brackets, Steel

For orderly and clear cable routing in the 19" level Material steel sheet

Paint finish RAL7035, light grey / RAL9005, jet black

ArtNo.	Description	Bracket Length	Colour
699995	19" 1U Cable Routing Panel, 4 Brackets, Steel	60 mm	RAL7035
699995TS	19" 1U Cable Routing Panel, 4 Brackets, Steel	60 mm	RAL9005







19" 1U Cable Routing Panel, 5 Brackets, Steel

For orderly and clear cable routing in the 19" level Material steel sheet

Paint finish RAL7035, light grey / RAL9005, jet black

ArtNo.	Description	Bracket Length	Colour
699995.1	19" 1U Cable Routing Panel, 5 Brackets, Steel	60 mm	RAL7035
699995TS.1	19" 1U Cable Routing Panel, 5 Brackets, Steel	60 mm	RAL9005



19" 2U Cable Routing Panel, 5 Brackets, Steel

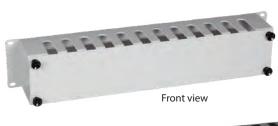
For orderly and clear cable routing in the 19" level Material steel sheet

Paint finish RAL7035, light grey / RAL9005, jet black

ArtNo.	Description	Bracket Length	Colour
699998	19" 2U Cable Routing Panel, 5 Brackets, Steel	60 mm	RAL7035
699998TS	19" 2U Cable Routing Panel, 5 Brackets, Steel	60 mm	RAL9005











19" 1U Cable Routing Panel with Cover, Steel

With front-sided cover with quick-fastener For orderly and clearly cable routing in the 19" level Material steel sheet Paint finish RAL7035, light grey / RAL9005, jet black

ArtNo.	Description	Bracket Length	Colour
699999.1	19" 1U Cable Routing Panel with Cover, Steel	50 mm	RAL7035
699999TS.1	19" 1U Cable Routing Panel with Cover, Steel	50 mm	RAL9005



19" 2U Cable Routing Panel with Cover, Steel

With front-sided cover with quick-fastener For orderly and clearly cable routing in the 19" level Material steel sheet Paint finish RAL7035, light grey / RAL9005, jet black

ArtNo.	Description	Bracket Length	Colour
699999.2	19" 2U Cable Routing Panel with Cover, Steel	79 mm	RAL7035
699999TS.2	19" 2U Cable Routing Panel with Cover, Steel	79 mm	RAL9005







19" 1U Cable Feedtrough Panel with Brush

Cutout 440 x 25 mm Material steel sheet Paint finish RAL7035, light grey / RAL9005, jet black

ArtNo.	Description	Colour
699993V2	19" 1U Cable Feedtrough Panel with Brush	RAL7035
699993TSV2	19" 1U Cable Feedtrough Panel with Brush	RAL9005



19" 1U Cable Feedtrough Panel with Edge Protection, Steel

Cutout 440 x 25 mm Material steel sheet Paint finish, RAL7035 light grey / RAL9005, jet black

ArtNo.	Description	Colour
699993	19" 1U Cable Feedtrough Panel with Edge Protection, Steel	RAL7035
699993TS	19" 1U Cable Feedtrough Panel with Edge Protection, Steel	RAL9005





19" 1U Cable Tidy Rail

Cable tidy rail for mounting on the 19" profile in network and server cabinets

For orderly installation and strain-relief of cables via cable ties Width 482.6 mm, Depth 60 mm Material steel, galvanised

ArtNo.	Description
691660	19" 1U Cable Tidy Rail

Cable Tidy Rail for Side Mounting

Cable tidy rails for side mounting on the 19" profile in network and server cabinets

Organised installation and strain relief of cables via cable ties Material steel, galvanised

ArtNo.	Description	For Cabinet Depth
691670	Cable Tidy Rail for Side Mounting	600 mm
691665	Cable Tidy Rail for Side Mounting	800 mm
691661	Cable Tidy Rail for Side Mounting	1000 mm
691661.1	Cable Tidy Rail for Side Mounting	1200 mm





C-Profiles for 19" Mounting

Dimensions 483 x 30 x 15 mm With 2 x 19" mounting holes 6.5 x 12 mm Slot wide 16 mm Material steel, galvanised

ArtNo.	Description
691273.1	C-Profile for 19" Mounting

C-Profiles for Side-Mounting

C profile rail 30 x 15 mm with slot width 16 mm For side-mounting at the 19" profiles in EFB standing cabinets CLASSIC For use in PRO series a slightly adjustment of 19" profile depth is necessary Continuous 25 mm grid holes 11 x 7.3 mm Material steel, galvanised

ArtNo.	Description
691273.8V2	C Profile Rail for Side Mounting, Cabinet Depth 800 mm
691273.10V2	C Profile Rail for Side Mounting, Cabinet Depth 1000 mm
691273.12V2	C Profile Rail for Side Mounting, Cabinet Depth 1200 mm



U-Clamps for C-Profile Rails, incl. Bottom Saddle

U-clamps for C-profile rails with slot width 16..17 mm Material steel sheet, galvanised Delivery incl. bottom saddle Other dimensions available on request

ArtNo.	Description
691275.3	U-Clamp incl. Bottom Saddle, for Cable Ø 1622 mm
691275.5	U-Clamp incl. Bottom Saddle, for Cable Ø 2834 mm
691275.7	U-Clamp incl. Bottom Saddle, for Cable Ø 3842 mm



Application example







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19" Dummy Plates

For covering open areas in the 19" level High stability Paint finish RAL7035, light grey / RAL9005, jet black

ArtNo.	Description	U	Colour
691265	19" Dummy Plates	1	RAL7035
691266	19" Dummy Plates	2	RAL7035
691267	19" Dummy Plates	3	RAL7035
691268	19" Dummy Plates	6	RAL7035
691269	19" Dummy Plates	9	RAL7035
691265TS	19" Dummy Plates	1	RAL9005
691266TS	19" Dummy Plates	2	RAL9005
691267TS	19" Dummy Plates	3	RAL9005
691268TS	19" Dummy Plates	6	RAL9005
691269TS	19" Dummy Plates	9	RAL9005



19" Dummy Plates, Perforated

For covering open areas in the 19" level Perforation enables air flow High stability Paint finish RAL7035, light grey / RAL9005, jet black

ArtNo.	Description	U	Colour
691265PF.GR	19" Dummy Plates, Perforated	1	RAL7035
691266PF.GR	19" Dummy Plates, Perforated	2	RAL7035
691265PF.TS	19" Dummy Plates, Perforated	1	RAL9005
691266PF.TS	19" Dummy Plates, Perforated	2	RAL9005

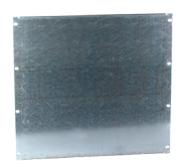




19" 1U Dummy Plate Snap-In, Tool-Less, RAL9005

Very fast and easy snap-in mounting, screw-less Easy to remove Material plastic Colour similar RAL9005, jet black

ArtNo.	Description	U	Colour
691271	19" 1U Dummy Plate Snap-In, Tool-Less, RAL9005	1	RAL9005



19" 10U Mounting Plate

For screw mounting of devices in area of the 19" level Material steel sheet, galvanised, thickness 3 mm

Unperforated	d		
ArtNo.	Description		

19" 10U Mounting Plate



Earthing Set for Cabinets 42U, Vertical

For vertical installation in 42U network cabinets Classic/PRO Mounting via supporting insulators on the sidely round holes of the 19" profiles (PRO: please use rear lateral raster holes) Mountable also in combination with vertically blind panels

of the YOU'LL FIND IN OUR ONLINE SHOP

SUITABLE EARTHING CABLE

For mounting in server cabinets the installation of an additional 19" profile is recommended Scope of delivery: copper earthing bar $1800 \times 15 \times 5$ mm, $12 \times busbar terminal 1.5 ... 16$ mm², $4 \times supporting insulator$, $8 \times thread bolt M6 \times 25$, $8 \times washer$, $8 \times nut M6$, self-locking

ArtNo.	Description
K3930V42	Earthing Bar for Network Cabinets 42U, Vertical, incl. 12 x Busbar Clamp



Earthing Set for Cabinets, Small

For mounting in all network / server cabinets Classic/ISR and wall-mount cabinets Earthing kit consisting of:

Earthing bar 9 connection points, 9 x screws with washer for connection points, 2 x M5 nuts, 6 x earthing cable H07V-K, 1 x 6 mm 2 , gn/ye, with M5 ring cable lug on both sides

Lengths: 2×390 mm, 2×580 mm, 1×670 mm, 1×800 mm Material: steel, copper plated

All parts packed in polybag

ArtNo.	Description
K3930V2	Earthing Set for Cabinets, Small



Turning Handle, Complete, w/o Cylinder

Suitable for all front and rear doors (full height) of standing cabinets PRO and Classic Suitable for cutout 25-50-50-50
For use with profile half-cylinders DIN 18252 / EN1303 (30/10 mm)

Profile half-cylinder not included, please order separately

Material plastic / metal

ArtNo.	Description
102179	Turning Handle, Complete, without Cylinder



Profile Half-Cylinder

Profile half-cylinder acc. to DIN 18252 / EN1303

Suitable for EFB standard turning handles (Art.-No. 102179), compact turning handle (Art.-No. 699989) and telecom distributors TWL/TSL

ArtNo.	Description
46087.1	Profile Half-Cylinder T3/1333 with 2 Keys (for Classic)
46087.1P	Profile Half-Cylinder T3/1333 with 2 Keys (for PRO)
46087.2	Profile Half-Cylinder Locking T4 with 2 Keys, Alternative Locking
46087.3	Profile Half-Cylinder for Locking 3524E with 1 Key
46087.4	Profile Half-Cylinder with Push-Button
46086.1	Profile Half-Cylinder Locking 15, with 1 Key Q15



Compact Turning Handle for Profile Half Cylinder

Enables the use of an individual profile half-cylinder in doors of wall cabinets 1-part/2-part and Flat Pack Suitable for use with profile half-cylinder acc. to DIN 18252 / EN1303 (e.g. Art.-No. 46087.x) Easiest mounting, included latch limits the rotation angle to 90° Delivery without profile half-cylinder

Art	-No.	Description
6999	989	Compact Turning Handle for PHC, incl. Latch



Spare Keys for Standard Cabinet/Wall Housing

2 spare keys for standing and wall cabinets

ArtNo.	Description
102115	Spare keys for Network and Server Cabinets, Wall Housings (T3/1333), 2 Pieces
102115.2	Spare Keys for Wall Housings IP55 and 3+5U, 2 Pieces
102115.4	Spare Key for Standing Cabinets IP55, 2 Pieces

LABELING SYSTEM, CAGE NUTS | CABLE MANAGEMENT

Labeling System for 19"/1U

Installation in 19" server, network cabinets For labeling devices like patch panels, switches etc. Transparent window in the cover, easy installation via included screws Mountable at left and right side

Without screws max. expandable to 4U

Colour RAL7035, light grey

Dimensions (W x H x D) 42 x 44 x 10 mm

ArtNo.	Description	Colour
37680.1	Labeling System for 19" 1U, Grey	RAL7035
37681.1	Labeling Sheet, 1 Sheet = 40 Labels	



Application example



Set of Captive Nuts

Consisting of 20/50 x captive nuts M6 20/50 x washer M6 plastic 20/50 x screw M6 x 20 mm PH3

ArtNo.	Description
691099	Set of Captive Nuts 20 x M6, Complete
691100	Set of Captive Nuts 50 x M6, Complete



Set of Captive Nuts for Front Mounting

For front-sided mounting into the 19" profile Easy and fast - no more wounded fingers!
Set of 50 x screw M6 x 20 mm, washer and cage nut Material steel, nylon

ArtNo.	Description
691102	Set of Captive Nuts 50 x M6 for Front Mounting (50 x Nut., Screw, Washer)



Set of Captive Nuts, 50 x M6 Torx for Front Mounting

For front-sided mounting into the 19" profile Easy and fast - no more wounded fingers!
Set of 50 x screw M6 x 20 mm T30, washer and cage nut Material steel, nylon

ArtNo.	Description
691104	Set of Captive Nuts, 50 x M6 Torx for Front Mounting (50 x Nut., Screw, Washer)



Set of Captive Nuts, 50 x M5 for Front Mounting

For front-sided mounting into the 19" profile Easy and fast - no more wounded fingers!
Set of 50 x screw M5 x 20 mm PH2, washer and cage nut Material steel, nylon

ArtNo.	Description
691103	Set of Captive Nuts 50 x M5 for Front Mounting (50 x Nut., Screw, Washer)

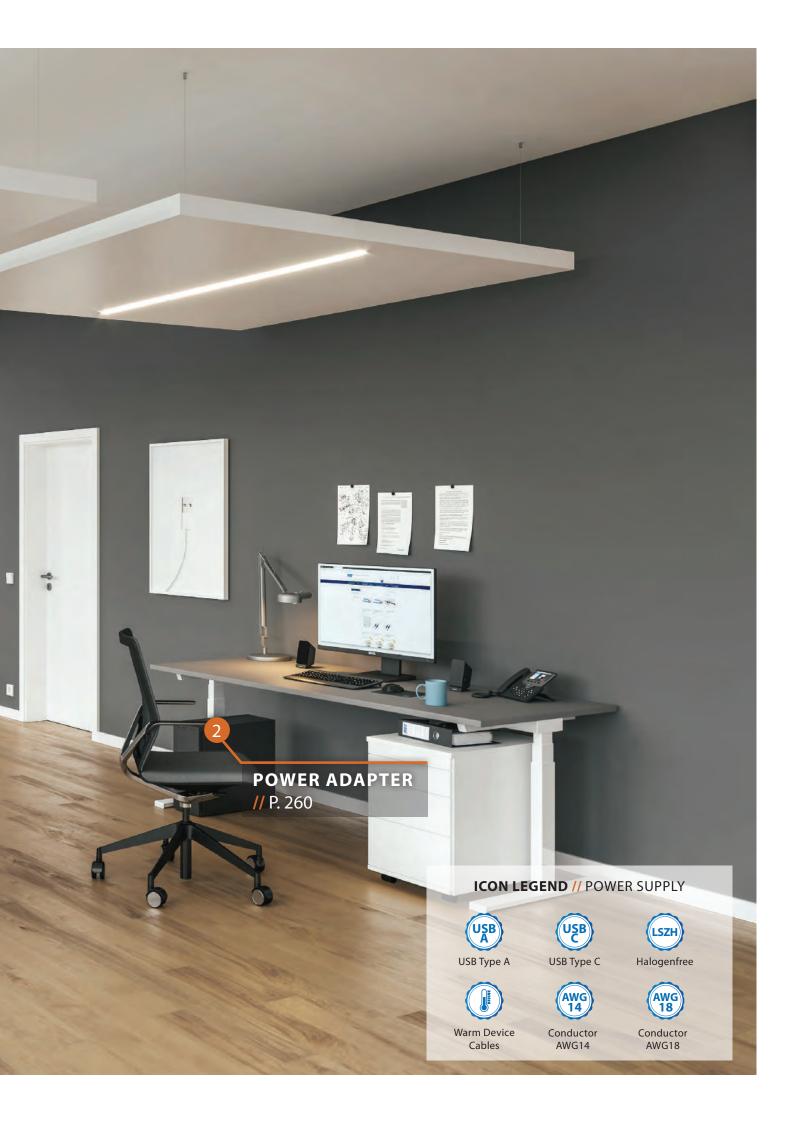




The cage nuts are inserted from the front into the 19" grid perforation and fixed by a rotation of 45°.

The annoying **reaching behind the 19" profiles** as well as the **risk of injury** when handling sharp-edged spring steel cages **are fully eliminated**.







19" Socket Strips	P. 251
10" Socket Strips	P. 254
Standard Socket Strips	P. 255
DIN-Rail Outlets	P. 256
Intelligent Power Distribution Unit	P. 257
Power Cables & Extensions	P. 260
International Power Cables	P. 266
Power Adapters	P. 269

SOCKET STRIPS //

// YOU MIGHT ALSO BE INTERESTED IN:

19" Network Cabinets	P. 184
Active Devices (e.g. Switches)	P. 312



Хорр

19" 1U Socket Strips Kopp

Socket strip PROFIversal with 45° turned socket inserts in aluminium profile Cable 2.0 m grey, H05VV-F 3G 1.5 mm² with angled CEE7/7 plug Included metal brackets allow any fastening position

ArtNo.	Description	Colour	No. Of Sockets With Protective Contact
691685K	19" 1U Socket Strip 9 x CEE 7/3 without Switch	Grey	9
691686K	19" 1U Socket Strip 8 x CEE 7/3 with Switch	Grey	8
691687K	19" 1U Socket Strip 8 x CEE 7/3 with Surge Protection	Grey	8
691689K	19" 1U Socket Strip 6 x CEE 7/3 with Full Device Protection	Grey	6
691698K	19" Socket Strip 8 x CEE 7/3 Red, Cable C14	Red	8



19" 1U Socket Strips Bachmann

35° turned socket inserts in the aluminium profile Cable H05VV-F 3G 1.5 mm², black, 2.0 m with angled CEE7/7 plug Supplied mounting brackets allow any fastening position

ArtNo.	Description	Colour	No. Of Sockets With Protective Contact
691685	19" 1U Socket Strip 9 x CEE7/3 without Switch	Grey	9
691686	19" 1U Socket Strip 8 x CEE7/3 with Switch	Grey	8
691687	19" 1U Socket Strip 8 x CEE7/3 with Surge Protection	Grey	8
691688	19" 1U Socket Strip 7 x CEE7/3 with Surge Protection and Switch	Grey	7
691689	19" 1U Socket Strip 6 x CEE7/3 with Surge Protection + Mains Filter	Grey	6
691698	19" 1U Socket Strip 8 x CEE7/3 (red) with Cable IEC C14	Red	8



19" 1U Socket Strips Bachmann

35° turned socket inserts in the aluminium profile Cable H05VV-F 3G 1.5 mm², black, 2.0 m, with angled CEE7/7 plug Supplied mounting brackets allow any fastening position

ArtNo.	Description	Colour	No. Of Sockets With Protective Contact
691683	19" 1U Socket Strip 9 x CEE7/3 without Switch	Black	9
691684	19" 1U Socket Strip 8 x CEE7/3 with Switch	Black	8
691689SW	19" 1U Socket Strip 6 x CEE7/3 with Surge Protection + Mains Filter	Black	6





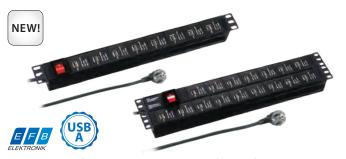
19" 1U Socket Strips Protective Contact

19" 1U socket strip in aluminium profile Outlets 9/8/7 x CEE 7/3, turned 45°, with increased personal protection against electric shocks Cable 2 m H03VV-F 3G 1.5 mm² with angled CEE7/7 plug

Colour outlets black, housing aluminium black

Certifications CE, RoHS

ArtNo.	Description	Colour	No. Of Sockets With Protective Contact
EK631DE.1	19" 1U Socket Strip 9 x CEE 7/3 without Switch	Black	9
EK631DE.2	19" 1U Socket Strip 8 x CEE 7/3 with Switch	Black	8
EK631DE.3	19" 1U Socket Strip 7 x CEE 7/3 with Surge Protection	Black	7



19" 1U/2U Socket Strips 16/32 x USB with Switch

19" 2U socket strip in aluminium profile

Outlets 32 x USB-A e.g. for charging of mobile devices in tablet holders and cabinets

Charging voltage 5 V, charging current max. 2100 mA per 2 ports With highlighted on/off switch

Cable 3 m H03VV-F 3G 1.5 mm² with angled CEE7/7 plug Colour black

Certifications CE, RoHS

ArtNo.	Description
EK631USB.1	19" 1U Socket Strip 16 x USB with Switch
EK631USB.2	19" 2U Socket Strip 32 x USB with Switch



19" 1.5U Socket Strip 18 x USB with Switch

19" 1.5U socket strip in aluminium profile

Outlets 18 x USB (9 x USB-A + 9 x USB-C) e.g. for charging of mobile devices in tablet holders and $\;$ cabinets

SOON ALSO

AVAILABLE

IN GREY

Charging voltage 5 V, charging current max. 3200 mA per 2 ports (1 x USB-A \pm 1 x USB-C)

With highlighted on/off switch

Cable 3 m H03VV-F 3G 1.5 mm² with angled CEE7/7 plug

Colour black

Certifications CE, RoHS

ArtNo.	Description
EK631USB.1,5	19" 1.5U Socket Strip 18 x USB with Switch





19" 1U socket strip in aluminium profile
Outlets 9/8 x France (UTE), with increased contact protection
Cable 1.8 m H03VV-F 3G 1.5 mm² with angled CEE7/7 plug
Colour outlets black, housing aluminium black
Certifications CE, RoHS

ArtNo.	Description
EK631FR.1	19" 1U Socket Strip 9 x UTE without Switch
EK631FR.2	19" 1U Socket Strip 8 x UTE with Switch





19" 1U Socket Strips Italy

19" 1U socket strip in aluminium profile
Outlets 9/8 x Italy-Universal, with increased contact protection
Cable 1.8 m H03VV-F 3G 1.5 mm² with Italy plug (type L)
Colour outlets black, housing aluminium black
Certifications CE, RoHS

ArtNo.	Description
EK631IT.1	19" 1U Socket Strip 9 x IT without Switch
EK631IT.2	19" 1U Socket Strip 8 x IT with Switch

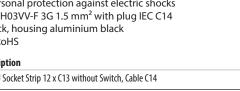




19" 1U Socket Strip 12 x C13

19" 1U socket strip in aluminium profile Outlets 12 x IEC C13 With overload protection 10 A With increased personal protection against electric shocks Cable 1.8 m black, H03VV-F 3G 1.5 mm² with plug IEC C14 Colour outlets black, housing aluminium black Certifications CE, RoHS

ArtNo.	Description
EK631CC.1	19" 1U Socket Strip 12 x C13 without Switch, Cable C14





BACH MANN

19" 1U Socket Strip 8 x IEC C13

8 x IEC60320/C13 socket black, in aluminium profile Integrated 10 A microfuse Cable 2 m black, H05VV-F 3G 1.5 mm² with angled CEE7/7 plug Supplied mounting brackets allow any fastening position

I	ArtNo.	Description	Colour
6	591697	19" 1U Socket Strip 8 x IEC C13	Grey



BACH MANN

19" 1.2U Socket Strips 6/7 x Protective Contact with Surge Protection, PVC

Surge protection leakage current 6.5 kA Optical function indication 35° turned socket inserts in plastic profile Cable 2 m white, H05VV-F 3G 1.5 mm², with angled CEE7/7 plug Height 54 mm (1.2U) Supplied mounting brackets allow any fastening position

ArtNo.	Description	Colour
691693	19" 1.2U Socket Strip 7 x CEE7/3 with Surge Protection, PVC	Grey
691694	19" 1.2U Socket Strip 6 x CEE7/3 with Surge Protection and Switch, PVC	Grey



BACH MANN

19" 1U Socket Strip 12 x C13

12 x IEC60320/C13 sockets black, in aluminium profile Cable 2 m black, H05VV-F 3G 1.5 mm² with angled CEE7/7 plug Supplied mounting brackets allow any fastening position

ArtNo.	Description
691698.3	19" 1U Socket Strip 12 x C13 without Switch



BACH MANN

19" 1U Socket Strip 6 x C19, 3-Phase

Aluminium profile height 44 mm, depth 47 mm, width ca. 438 mm Outlets 6 x IEC C19 lockable (IEC Lock) (2 x C19 per phase) 3-phase feeding with colour marking (red/black/grey) Cable 3 m black, H05VV-F 5G 2.5 mm² with CEE 16 A plug 5-pole red Supplied 19" mounting brackets allow any fastening position

ArtNo.	Description	Colour
691780	19" 1U Socket Strip 6 x C19, 3-Phase, Plug CEE 16 A Red	Grey



BACH MANN

19" 1.2U Socket Strips 7/8 x Protective Contact, PVC

35° turned socket inserts in plastic profile Cable 2 m white, H05VV-F 3G 1.5 mm², with angled CEE7/7 plug Height 54 mm (1.2U)

Supplied mounting	brackets allow any	fastening position
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ArtNo.	Description	Colour
691695	19" 1.2U Socket Strip 8 x CEE7/3 without Switch	Grey
691696	19" 1.2U Socket Strip 7 x CEE7/3 with Switch	Grey



Корр

10" 1U Socket Strip 4 x CEE7/3 without Switch

Socket strip PROFIversal 4-way 45° turned socket inserts in aluminium profile Cable 2.0 m grey, H05VV-F 3G 1.5 mm², 250 V AC / 16 A with angled CEE7/7 plug, rewireable Included metal brackets allow any fastening position VDE certified

ArtNo.	Description	Colour	No. Of Sockets With Protective Contact
ESP.72K	10" 1U Socket Strip 4 x CEE7/3, without Switch	Grey	4



BACH MANN

10" Socket Strips Bachmann

 35° turned outlets in aluminium profile Cable 2.0 m black, H05VV-F 3 x 1.50 mm^2 with angled CEE7/7 plug Included metal brackets allow any fastening position VDE certified

ArtNo.	Description	Colour	No. Of Sockets With Protective Contact
ESP.70	10" 1U Socket Strip 3 x CEE7/3, without Switch	Grey	3
ESP.72	10" 1U Socket Strip 4 x CEE7/3, without Switch	Grey	4





10" 1U Socket Strip 4 x CEE 7/3 without Switch

Outlets turned 45° in Aluminium profile With increased personal protection against electric shock Cable 2 m black, H03VV-F 3G 1.5 mm² with angled CEE7/7 plug Certifications CE, RoHS

ArtNo.	Description	Colour	No. Of Sockets With Protective Contact
EK631DE.10	10" 1U Socket Strip 4 x CEE 7/3, without Switch	Black	4
EK631DE.11	10" 1U Socket Strip 4 x CEE 7/3, with Switch	Black	4



Socket Strip 6 x Protective Contact with Surge Protection, 2 x USB, 2 x RJ45, 2 x RJ11 and Switch

With increased protection against electric shocks, GS tested Surge protection for power supply, network and phone 2 x USB charging 5 V / 1000 mA max. total Lighting ON/OFF switch Wall mounting possible 45° turned outlets
Connections: 6 x CEE7/3, 2 x RJ45 UTP, 2 x RJ11, 2 x USB A

Cable ca. 1.5 m H05VV-F 3G 1.00 mm 2 , 250 V AC / 16 A with angled CEE7/7 pluq

ArtNo.	Description	Colour
EK610	Socket Strip 6 x with Surge Protection, 2 x USB, 2 x RJ45, 2 x RJ11 and Switch	Cream white/electro white



Socket Strips 6 x Protective Contact

With increased protection against electric shocks 45° turned socket inserts

Cable 1.4 m white, H05VV-F3 1.50 mm², 250 V AC / 16 A with angled plug CFF7/7

Material plastic, white

ArtNo.	Description	Colour
ESP.2.1K	Socket Strips 6 x Protective Contact with Switch	White
ESP.3.1K	Socket Strips 6 x Protective Contact	White



Socket Strips 3 x Protective Contact

With increased protection against electric shocks 45° turned socket inserts

Cable 1.4 m white, H05VV-F3 1.50 $\mathrm{mm^2}$, 250 V AC / 16 A with angled plug CEE7/7

Material plastic, white

ArtNo.	Description	Colour
ESP.25.1K	Socket Strip 3 x Protective Contact with Switch	White
ESP.30.1K	Socket Strip 3 x Protective Contact	White



Socket Strip 6 x Protective Contact With Surge Protection, Mains Filter And Switch

Fully appliance protection, consisting of overvoltage protection (nominal leakage current 6.5 kA), 2 x thermal fuse, frequency and mains filter Optical function indication

35° turned socket inserts

Integrated cable winder, illuminated ON/OFF switch
Cable 2.0 m black, H05VV-F 3G 1.5 mm², 250 V AC / 16 A with angled plug
CEE7/3

ArtNo.	Description	Colour
ESP.41	Socket Strip 6 x with Surge Protection, Mains Filter and Switch	Black



Socket Strip 6 x Protective Contact With Surge Protection And Switch

With increased protection against elecrical shocks

35° turned socket inserts

Surge protection leakage current 6.5 kA

Cable 1.5 m white, H05VV-F3 1.50 $\mathrm{mm^3}$, 250 V AC / 16 A with angled CEE7/3 plug

ArtNo.	Description	Colour
ESP.29	Socket Strip 6 x with Surge Protection and Switch	White



Корр

Socket Strips DUOversal® plus

All socket outlets with connection option for one 1 x protective contact or 2 x Euro plug: Doubling of the devices to be connected in comparison to a conventional strip

Easy placement of angled plugs, power supplies, timers etc. due to 52 mm outlet spacing

Outlets turned 35°, With increased personal protection against electric shocks

With 2-pole, highlighted switch

Cable 1.4 m H05VV-F 3G 1.5 mm², 250 V / 16 A

Material plastic/ABS, halogenfree, PVC free

FURTHER
VARIANTS with
surge protection, USB
charging function and
other lead lengths
AVAILABLE ON
REQUEST.

EK646xx.3F: Variant with flat plug for especially

tight places

Further variants with surge protection, USB charging and other cable lengths available on request.

ArtNo.	Description	Colour	No. Of Sockets With Protective Contact	Number Of Euro Socket Outlets
EK646WS.3	DUOversal® plus 3=6, with Switch	White	3	6
EK646SW.3	DUOversal® plus 3=6, with Switch	Black	3	6
EK646WS.3F	DUOversal® plus 3=6, with Switch, Flat Plug	White	3	6
EK646SW.3F	DUOversal® plus 3=6, with Switch, Flat Plug	Black	3	6
EK646WS.6	DUOversal® plus 6=12, with Switch	White	6	12
EK646SW.6	DUOversal® plus 6=12, with Switch	Black	6	12









Socket Outlets 1-Way for DIN-Rail

Outlet with protective contact for mounting at DIN-rail TS35 ("Hat Rail") Rated voltage/ current 250 V / 16 A Wire max. 10 $\rm mm^2$

Colour grey (red,yeloow ertc. on request)

ArtNo.	Description	Colour
EK633.1	Socket Outlet 1-Way for DIN-Rail	Grey
EK633.2	Socket Outlet 1-Way for DIN-Rail, with Cover	Grey
EK633.3	Socket Outlet 1-Way for DIN-Rail, France (UTE)	Grey



INTELLIGENT POWER DISTRIBUTION UNITS BlueNet





BlueNet - smart Solutions

BlueNet offers a complete solution for structuring, controlling and monitoring IT power grids.

PDUs from the BlueNet series capture consumption and output data, and provide the user with relevant data and control options for modern energy management.

The BN3000 – BN7500 generation of our BlueNet products is synonymous with state-of-the-art technology – whether in the form of power distribution units (PDUs) that can be cascaded via Modbus, integrated, universal-currentsensitive residual current monitoring, command line tools or the rotating OLED display. And there's more: our features represent safety and efficiency, and they can be integrated into DCIM systems. From a single workplace, you can monitor and control your data centre's complex power grid locally or remotely.

Residual Current Monitoring (RCM)

Using type B residual current monitoring (RCM) allows changes in the level of insulation of your power supply to be detected promptly, before protective devices are tripped by a residual current that puts people at risk and involves the risk of fire, which would lead to the failure of critical IT infrastructure. This time advantage allows countermeasures to be planned and contributes to the high availability of the power supply and, therefore, the data centre.

Thanks to our BlueNet PDU, this residual current monitoring is not just undertaken at central measuring points in the main distribution or subdistribution, but granulated at rack level in every PDU and even for every phase. In the event of escalation, this will help to locate the sources of errors faster and rectify them efficiently.

The residual current sensor conforms to EN 62020 and provides a high physical granularity, maximum safety and high availability. This AC/DCsensitive technology (type B) monitors all kinds of residual current and enables the user to differentiate between alternating (AC) and direct (DC) residual currents. Leakage currents, which are physically required, can therefore be distinguished from real residual currents. Both measured values (AC and DC) are evaluated separately via BlueNet software and made available to the monitoring system or the building control system. This kind of residual current monitoring (type B RCM) is therefore particularly suited to use in IT.

BlueNet overview



	PDUs for n	netering tasks	PDUs for me	lering tasks	PDUs for switching	and metering tasks
	BN0500	BN2000	BN3000	BN3500	BN7000	BN7500
Singa pachachan	(+)	(•)	(•)	(*)	(*)	(+)
Messervent per phase	*			*		
Biteret					9	
Sensors			2.0		21	
Models HTUTCP				1.0		
Type B ROAL			(*)	(*)	(*)	(•)
Smiking					÷ .	
Measurement perport				*		-
Powers Communication		(*)				
*		*		+		
Other features of the BN0500: Measurement: Christi, violage, phase angs, features, effective power, arising motion, crestiful accountry 2% LCD Operation: Cost	Other features of the BN2000: Measurement: Garnet, votage, phaseur effective cover, reactive pr every make, prover facult postation: Connection: Connection: Communication: Communication: Five, HTTP INCE SIGNET	wer, appreent power, treathel conductor unexy the school software	Measurem Display: Operation: Connectio	apparent power, energy meter measuring accuracy 1% OLED, display can be refeted Web browser, book	locitive power, function power, , power tector, reutral conductor, month using software moore, focing digital input, ficaling rea P. HTTPS, SSH, DHCP SWITP, SWIMPV	voutout



Sample picture 691787





elektronik.de/en

Socket Strips Vertical

Vertical 0U socket strip in aluminium profile Outlets protective contact and/or C13 / C19 Cable 3.0 m black

Supplied mounting brackets allow any fastening position

ArtNo.	Description	No. Of Protective Contact Outlets	No. Of Cold Device Outlets	Feeding
691781	Socket Strip Vertical, 24 x C13 + 3 x C19, 1-Phase, Plug CEE 16 A		27	1-Phase, CEE 16 A blue
691782	Socket Strip Vertically 20 x C13, 2 x CB C 16 A, Plug CEE 32 A Blue		20	1-Phase, CEE 32 A blue
691783	Socket Strip Vertical, 12 x C13 + 6 x CEE7/3, 3-Phase, CEE 16 A red	6	12	3-Phase, CEE 16 A red
691784	Socket Strip Verticall 15 x CEE7/3, 3-Phase, Plug CEE 16 A red	15		3-Phase, CEE 16 A red
691785	Socket Strip Vertical 18 x C13, 3-Phase, Plug CEE 16 A red		18	3-Phase, CEE 16 A red
691786	Socket Strip Vertical, 24 x C13 + 3 x C19, 3-Phase, Plug CEE 16 A red		27	3-Phase, CEE 16 A red
691787	Socket Strip Vertical, 36 x C13 + 12 x CEE7/3, 6-Phase, Wire End Sleeves	12	36	2x 3-Phase, Wire End Sleeves



Beispielabbildung 691790.18



Socket Strips BlueNET500 with Power Measuring (Display)

Socket strip BlueNET500 with integrated power measuring per phase Cable 3.0 m black

Supplied mounting brackets allow any fastening position



ArtNo.	Description	No. Of Protective Contact Outlets	Number Of C13 Outlets	Number Of C19 Outlets	Feeding
691790.1	PDU 19" 1U BN500 8 x CEE7/3	8			1-Phase, CEE7/7
691790.2	PDU 19" 1U BN500 12 x C13		12		1-Phase, CEE7/7
691790.5	PDU Vertical BN500 24xC13 3xC19		24	3	3-Phase, CEE 16 A red
691790.6	PDU Vertical BN500 24xC13 4xC19		24	4	1-Phase, CEE 16 A blue
691790.10	PDU Vertical BN500 24xC13 6xC19		24	6	3-Phase, CEE 16 A red
691790.11	PDU Vertical BN500 24xC13 6xCEE7/3	6	24		3-Phase, CEE 16 A red
691790.12	PDU Vertical BN500 24xC13 6xC19 6xCEE7/3	6	24	6	3-Phase, CEE 16 A red
691790.13	PDU Vertikal BN500 36xC13 6xC19		36	6	3-Phase, CEE 16 A red
691790.17	PDU Vertical BN500 24xC13 4xC19		24	4	1-Phase, CEE 32 A blue
691790.18	PDU Vertical BN500 24xC13 6xC19		24	6	3-Phase, CEE 32 A red



Sample picture 691791.8







Socket Strips BlueNET2000 Monitored (Display + Network)

Intelligent PDU BlueNET2000 Monitored in aluminium profile

Integrated function for measuring of current, voltage, reactive-, apparent-, active power, frequency and power factor

cable 3.0 m black

Delivery incl. mounting brackets and screws



ArtNo.	Description	No. Of Prot. Contact Outlets	No. Of C13 Outlets	No. Of C19 Outlets	Feeding
691791.1	19" 1U PDU BN2000 Monitored 6 x CEE7/3	6			1-Phase, CEE7/7
691791.2	19" 1U PDU BN2000 Monitored 8 x C13		8		1-Phase, CEE7/7
691791.3	PDU Vertical BN2000 Monitored 36 x C13 + 6 x CEE7/3	6	36		3-Phase, CEE 16 A red
691791.4	PDU Vertical BN2000 Monitored 36 x C13 + 6 x C19		36	6	3-Phase, CEE 16 A red
691791.5	PDU Vertical BN2000 Monitored 24 x C13 + 4 x C19 + 2 x CB 16 A		24	4	1-Phase, CEE 32 A blue
691791.6	PDU Vertical BN2000 Monitored 24 x C13 + 3 x C19		24	3	1-Phase, CEE 16 A blue
691791.7	PDU Vertical BN2000 Monitored 24 x C13 + 6 x C19 + 6 x CB		24	6	3-Phase, CEE 16 A red
691791.8	PDU Vertical BN2000 Monitored 24 x C13 + 6 x C19		24	6	3-Phase, CEE 16 A red



Sample picture BlueNET3000 PDU









Socket Strips BlueNET3000 Monitored with Residual Current Measuring (RCM)

Intelligent PDU BlueNET3000 RCM Monitored in aluminium profile

Residual current monitoring per phase/cable

Integrated function for measuring of current, voltage, reactive-, apparent-, active power, frequency and power factor

With integrated display, integrated webserver with 10/100 Mbit/s Ethernet (RJ45)

Cable 3.0 m black

Delivery incl. mounting brackets and screws

ArtNo.	Description	No. Of Prot. Contact Outlets	Number Of C13	Number Of C19	Feeding
691795.1	PDU Vertical BN3000 RCM Monitored 18 x C13 + 3 x C19 + 1 x RCM		12	3	3-Phase, CEE 16 A red
691795.2	PDU Vertical BN3000 RCM Monitored 12 x C13 + 6 x C19 +1 x RCM		12	6	3-Phase, CEE 16 A red
691795.3	PDU Vertical BN3000 RCM Monitored 12 x C13 + 6 x C19 + 3 x CEE7/3 + 1 x RCM	3	12	6	3-Phase, Wire End Sleeves
691795.4	PDU Vertical BN3000 RCM Monitored 24 x CEE7/3 + 1 x RCM	24			3-Phase, Wire End Sleeves





Power Cables Protective Contact P. 261 Power Cables IEC-Lock Cold & Warm Device Extensions & Euro P. 264 International Power Cables P. 266 Power Adapters P. 269

POWER CABLES & POWER ADAPTER

// YOU MIGHT ALSO BE INTERESTED IN:

19" Network Cabinets	P. 184
Wall housings	P. 220



Power Cables CEE7/7 90° - C13 180°, Coloured

Coloured power cords for clearly assignment of device - cable - outlet and signal colour, oo time-intensive search or tracing of cables Cable H05VV-F 3G 0.75 mm²

10 A / 250 V VDE tested

ArtNo.	Conductor Ø	Colour	Length
EK588BL.1,8	0.75 mm ²	Blue	1.8 m
EK588GE.1,8	0.75 mm ²	Yellow	1.8 m
EK588GN.1,8	0.75 mm ²	Green	1.8 m
EK5880R.1,8	0.75 mm ²	Orange	1.8 m
EK588RT.1,8	0.75 mm ²	Red	1.8 m
EK588WS.1,8	0.75 mm ²	White	1.8 m



Power Cable CEE7/7 90°-C13 180°

10 A / 250 V VDE tested Suitable for Germany, Belgium, France and further

ArtNo.	Conductor Ø	Colour	Length
EK504.0,5V2	0.75 mm ²	Black	0.5 m
EK504.1V2	0.75 mm ²	Black	1.0 m
EK504.2V2	0.75 mm ²	Black	2.0 m
EK504.3V2	1.00 mm ²	Black	3.0 m
EK504.5V2	1.00 mm ²	Black	5.0 m





Power Cable CEE7/7 90° - C13 180°, LSZH

Power Cable CEE7/7 90° to jack IEC60320/C13 **Halogen free**

Cable H05Z1Z1-F 3 x 1.00 mm² 10 A / 250 V VDE tested

Suitable for Germany, Belgium, France and further

ArtNo.	Conductor Ø	Colour	Length
EK504ZH.1,8	1.00 mm ²	Black	1.8 m
EK504ZH.5	1.00 mm ²	Black	5.0 m



Power Cable CEE7/7 90° - C13 180°

10 A / 250 V VDE tested Colour grey

Suitable for Germany, Belgium, France and further

ArtNo.	Conductor Ø	Colour	Length
EK501.2V2	0.75 mm ²	Grey	2.0 m
EK501.2,5V2	1.00 mm ²	Grey	2.5 m
EK501.3V2	1.00 mm ²	Grey	3 m
EK501.5V2	1.00 mm ²	Grey	5.0 m



Power Cable CEE7/7 180° - C13 180°

10 A / 250 V VDE tested Suitable for Germany, Belgium, France and further

ArtNo.	Conductor Ø	Colour	Length
EK508SW.2	0.75 mm ²	Black	2.0 m
EK508SW.3	1.00 mm ²	Black	3.0 m
EK508SW.5	1.00 mm ²	Black	5.0 m



Power Cable CEE7/7 180° - C13 180°

10 A / 250 V VDE tested Suitable for Germany, Belgium, France and further

ArtNo.	Conductor Ø	Colour	Length
EK508.2	0.75 mm ²	grey	2.0 m
EK508.3	1.00 mm ²	grey	3.0 m
EK508.5	1.00 mm ²	grey	5.0 m



Power Cable CEE7/7 180° - C13 90°

10 A / 250 V VDE tested Suitable for Germany, Belgium, France and further

ArtNo.	Conductor Ø	Colour	Length
EK534.2	0.75 mm ²	Black	2.0 m
EK534.3	1.00 mm ²	Black	3.0 m
EK534.5	1.00 mm ²	Black	5.0 m



Power Cable CEE7/7 90° - C13 90°

10 A / 250 V VDE tested Suitable for Germany, Belgium, France and further

ArtNo.	Conductor Ø	Colour	Length
EK535.2	0.75 mm ²	Black	2.0 m
EK535.3	1.00 mm ²	Black	3.0 m
EK535.5	1.00 mm ²	Black	5.0 m







Power Cable CEE7/7 180° - C19 180°

16 A / 250 V VDE tested Suitable for Germany, Belgium, France and further

ArtNo.	Conductor Ø	Colour	Length
EK511.1,8	1.50 mm ²	Black	1.8 m
EK511.3	1.50 mm ²	Black	3.0 m

Power Cable CEE 7/7 90°- C19 180°

16 A / 250 V VDE tested Suitable for Germany, Belgium, France and further

ArtNo.	Conductor Ø	Colour	Length
EK511W.1,8	1.50 mm ²	Black	1.8 m

Power Cable CEE7/7 90° - C15

Power cable CEE7/7 90° to warm device plug IEC C15

10 A / 250 V VDE tested Suitable for Germany, Belgium, France and further

ArtNo.	Conductor Ø	Colour	Length
EK625.1,8	1.00 mm ²	Black	1.8 m



Power Cable CEE7/7 90° - C5 180°

2.5 A / 250 V VDE tested Suitable for Germany, Belgium, France and further

ArtNo.	Conductor Ø	Colour	Length
EK552.1,8V2	0.75 mm ²	Black	1.8 m
EK552.3V2	0.75 mm ²	Black	3.0 m
EK552.5V2	0.75 mm ²	Black	5.0 m



Power Cable CEE7/7 90° - C5 90°

2.5 A / 250 V VDE tested Colour black Suitable for Germany, Belgium, France and further

ArtNo.	Conductor Ø	Colour	Length
EK551.1,8	0.75 mm ²	Black	1.8 m
EK551.3	1.00 mm ²	Black	3.0 m
EK551.5	1.00 mm ²	Black	5.0 m



Power Cable CEE7/7 90° - Open End

16 A / 250 V VDE tested Open End assembled with wire end sleeves Wire end sleeves for 1.8 m: $L=6\,$ mm, 1.7 mm, yellow insulator Wire end sleeves for $3+5\,$ m: $L=8\,$ mm, 1.7 mm, red insulator

Suitable for Germany, Belgium, France and further

Conductor Ø Colour Art.-No. Length EK504AE.1,8 0.75 mm² Black 1.8 m EK504AE.3 1.00 mm² Black 3.0 m EK504AE.5 1.00 mm² Black 5.0 m

NOTHING FOUND YET?

YOU WILL FIND AN EVEN LARGER PRODUCT SELECTION IN OUR ONLINE SHOP!

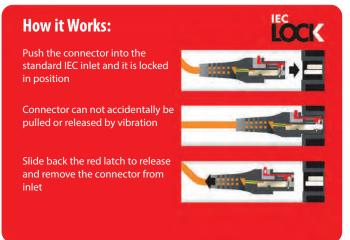


,Unique' Female IEC C13/C19 Connector,,IEC-Lock"



Ensures high availability through protection against accidentally disconnection of power supply for computers, servers and other high reliable devices.

Compatible with all common IEC plugs C14/C20 Protects vibration-hazarded devices Plug can not be removed unintentionally Use in data systems, medicine, broadcasting, maritime and others International cables, special colours and special lengths possible Device plugs C14/C20 with IEC Lock available on request.





% IEG LOCK

Power Cable CEE7/7 90° - C13 180°, IEC Lock+

The "IEC Lock+" prevents accidentally removing of the C13 jack from devices

After connecting, the C13 jack only can be released after sliding back the red latch

10 A / 250 V VDE tested (optional: orange, blue, grey, white) Suitable for Germany, Belgium, France and further Other types on request: UK, USA/NEMA, Switzerland, open end

ArtNo.	Conductor Ø	Colour	Length
EK603SW.2	1.00 mm ²	Black	2.0 m



Power Cable CEE7/7 90° - C13 180°, IEC Lock

1.00 mm²

The "IEC Lock" prevents accidentally removing of the C13 jack from devices

After connecting, the C13 jack only can be released after sliding back the red latch

10 A / 250 V VDE tested (optional: orange, blue, grey, white) Suitable for Germany, Belgium, France and further Other types on request: UK, USA/NEMA, Switzerland, open end

ArtNo.	Conductor Ø	Colour	Length
EK600SW.1	1.00 mm ²	Black	1.0 m
EK600SW.1,5	1.00 mm ²	Black	1.5 m
FK600SW.2	1.00 mm ²	Black	2.0 m

Black



PRO IEG LOCK

Extension Cable C14 180° - C13 180°, IEC Lock

The "IEC Lock" prevents accidentally removing of the C13 jack from devices

After connecting, the C13 jack only can be released after sliding back the red latch

10 A / 250 V VDE tested (optional: orange, blue, grey, white)

International standardised connectors

ArtNo.	Conductor Ø	Colour	Length
EK601SW.0,5	1.00 mm ²	Black	0.5 m
EK601SW.1	1.00 mm ²	Black	1.0 m
EK601SW.1,5	1.00 mm ²	Black	1.5 m
EK601SW.2	1.00 mm ²	Black	2.0 m
EK601SW.3	1.00 mm ²	Black	3.0 m



EK600SW.3

Extension Cable C20 180° - C19 180°, IEC Lock

The "IEC Lock" prevents accidentally removing of the C19 jack from devices

After connecting, the C13 jack only can be released after sliding back the red latch 16 A / 250 V VDE geprüft

International standardised connectors

ArtNo.	Conductor Ø	Colour	Length
EK607SW.1	1.50 mm ²	Black	1.0 m
EK607SW.2	1.50 mm ²	Black	2.0 m
FK607SW.3	1.50 mm ²	Black	3.0 m



3.0 m

Locking Connector IEC-Lock+

Connector cannot be accidentally pulled or vibrated out of 'ANY STANDARD' C14 IEC inlet

Requires no other equipment or special inlets to secure it

Rewireable

Offering total flexibility for cable assembly Can be retrofitted

Halogen free (LSZH)

ArtNo.	Description
60319.1	Locking Connector IEC-Lock+ C13 for Cable Assembly



Extension Cable C14 180° - C13 180°

Plug IEC60320/C14 to jack IEC60320/C13 10 A / 250 V VDE tested International standardised connectors

ArtNo.	Conductor Ø	Colour	Length
EK503.0,5	0.75 mm ²	Black	0.5 m
EK503.1	0.75 mm ²	Black	1.0 m
EK503.2	0.75 mm ²	Black	2.0 m
EK503.3	1.00 mm ²	Black	3.0 m
EK503.5	1.00 mm ²	Black	5.0 m





Extension Cable C13 180° - C14 180°, LSZH

Plug IEC60320/C14 to jack IEC60320/C13 **Halogen free**Cable H057171 E 3 v 100 mm²

Cable H05Z1Z1-F 3 x 1.00 mm² 10 A / 250 V VDE tested International standardised connectors

ArtNo.	Conductor Ø	Colour	Length
EK503ZH.1,8	1.00 mm ²	Black	1.8 m





Extension Cable C14 180° - C15 180°

Plug IEC60320/C14 to jack IEC60320/C15 10 A / 250 V VDE tested International standardised connectors

ArtNo.	Conductor Ø	Colour	Length
EK585.1	0.75 mm ²	Black	1.0 m
EK585.2	0.75 mm ²	Black	2.0 m
EK585.3	0.75 mm ²	Black	3.0 m



Extension Cable C14 180° - C13 180°

Plug IEC60320/C14 to jack IEC60320/C13 10 A / 250 V VDE tested International standardised connectors

ArtNo.	Conductor Ø	Colour	Length
EK507.1,8	0.75 mm ²	grey	1.8 m
EK507.3	1.00 mm ²	grey	3.0 m
EK507.5	1.00 mm ²	grey	5.0 m



Extension Cable C20 180° - C19 180°

Plug IEC60320/C20 to jack IEC60320/C19 16 A / 250 V VDE tested International standardised connectors

ArtNo.	Conductor Ø	Colour	Length
EK519.1	1.50 mm ²	Black	1.0 m
EK519.1,8	1.50 mm ²	Black	1.8 m
EK519.2,5	1.50 mm ²	Black	2.5 m
EK519.5	1.50 mm ²	Black	5.0 m





Extension Cable C19 180° - C20 180°, LSZH

Plug IEC60320/C20 to jack IEC60320/C19 Halogen free 16 A / 250 V VDE tested International standardised connectors

ArtNo.	Conductor Ø	Colour	Length
EK519ZH.1,8	1.50 mm ²	Black	1.8 m



Extension Cable C20 180° - C13 180°

Plug IEC60320/C20 to jack IEC60320/C13 10 A / 250 V VDE tested International standardised connectors

ArtNo.	Conductor Ø	Colour	Length
EK531.1,8	1.00 mm ²	Black	1.8 m





Extension Cable Euro Plug - Euro Jack

2.5 A / 250 V VDE tested Suitable for Europe, except of UK, Ireland, Malta, Cyprus

ArtNo.	Conductor Ø	Colour	Length
EK644.0,2	0.75 mm ²	Black	0.2 m

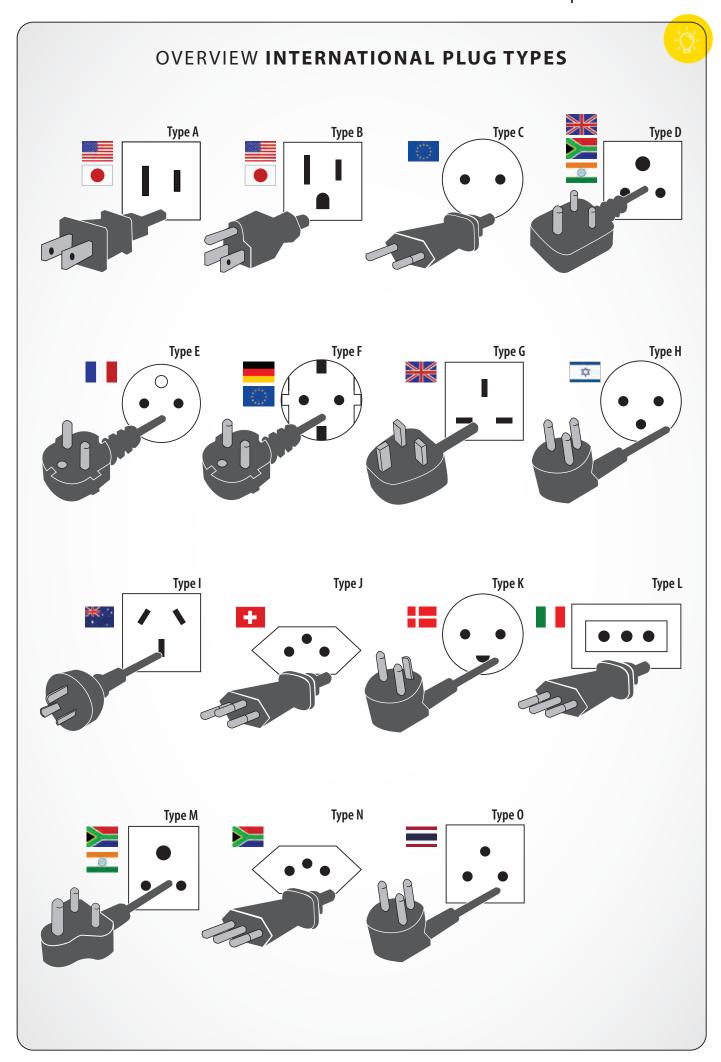




Power Cable Euro - C7 180°

2.5 A / 250 V VDE tested Suitable for Europe, except of UK, Ireland, Malta, Cyprus

ArtNo.	Conductor Ø	Colour	Length
EK502.2V2	0.75 mm ²	Black	2.0 m
EK502.3	0.75 mm ²	Black	3.0 m
EK502.5	0.75 mm ²	Black	5.0 m







Power Cable UK BS1363A - C13 90°

2.5 A / 250 V with fuse 3 A Suitable for UK, Ireland, Singapur, Malaysia

ArtNo.	Conductor Ø	Colour	Length
EK460.1,8	0.75 mm ²	Black	1.8 m





Power Cable UK BS1363A - C13 180°

10 A / 250 V with fuse 5 A Suitable for UK, Ireland, Singapur, Malaysia

ArtNo.	Conductor Ø	Colour	Length
EK484.2	1.00 mm ²	Black	2.0 m





Power Cable UK BS1363A - C13 180°

5 A / 250 V with fuse 5 A Suitable for UK, Ireland, Singapur, Malaysia

ArtNo.	Conductor Ø	Colour	Length
EK500.2	0.75mm^2	Black	2.0 m
EK500.3	1.00 mm ²	Black	3.0 m
EK500.5	1.00 mm ²	Black	5.0 m





Power Cable UK BS1363A - C7 180°

2.5 A / 250 V with fuse 3 A Suitable for UK, Ireland, Singapur, Malaysia

ArtNo.	Conductor Ø	Colour	Length
EK498.1,8	0.75 mm ²	Black	1.8 m
EK498.3	0.75 mm ²	Black	3.0 m
EK498.5	0.75 mm ²	Black	5.0 m





Power Cable UK BS1363A - C5 180°

2.5 A / 250 V with fuse 3 A Suitable for UK, Ireland, Singapur, Malaysia

ArtNo.	Conductor Ø	Colour	Length
EK499.1,8	0.75 mm ²	Black	1.8 m
EK499.3	0.75 mm ²	Black	3.0 m
EK499.5	0.75 mm ²	Black	5.0 m





Power Cable USA/NEMA 5-15P - C13 180° 3SJT AWG14

10(15) A / 125 V (15 A only in USA) UL, CSA approved Suitable for USA, Canada, Mexico, Taiwan, Brasilia

ArtNo.	Conductor Ø	Colour	Length
EK462.1,8	2.08 mm ²	Black	1.8 m







Power Cable USA/NEMA 5-15P - C13 180° SVT AWG18

10 A / 125 V UL, CSA approved Suitable for USA, Canada, Mexico, Taiwan, Brasilia

ArtNo.	Conductor Ø	Colour	Length
EK518.1,8	0.83 mm ²	Black	1.8 m







Power Cable USA/NEMA 5-15P - C5 180° SVT AWG18

7 A / 125 V UL, CSA approved Suitable for USA, Canada, Mexico, Taiwan, Brasilia

ArtNo.	Conductor Ø	Colour	Length
EK497.1,8	0.83 mm ²	Black	1.8 m







Power Cable USA/NEMA 1-15P - C7 180°, SPT-2 AWG18

7 A / 125 V

UL, CSA approved

Suitable for USA, Canada, Mexico, Taiwan, Brasilia

ArtNo.	Conductor Ø	Colour	Length
EK496.1,8	0.83 mm ²	Black	1.8 m





Power Cable Denmark DPin 90° - C13 180°

6 A / 250 V Suitable for Denmark

ArtNo.	Conductor Ø	Colour	Length
EK539.1,8	0.75 mm ²	Black	1.8 m
EK539.3	0.75 mm ²	Black	3.0 m





Power Cable Denmark DPin 90° - C5 180°

2.5 A / 250 V Suitable for Denmark

ArtNo.	Conductor Ø	Colour	Length
EK540.1,8	0.75 mm ²	Black	1.8 m





Power Cable Switzerland Type 12 - C13 180°

10 A / 250 V Suitable for Switzerland, Liechtenstein, Ruanda

ArtNo.	Conductor Ø	Colour	Length
EK537.2V3	0.75 mm ²	Black	2.0 m





Power Cable Switzerland Type 12 - C13 90°

 $10\,\text{A}\,/\,250\,\text{V}$ Suitable for Switzerland, Liechtenstein, Ruanda

ArtNo.	Conductor Ø	Colour	Length
EK483.1,8V2	0.75 mm ²	Black	1.8 m





Power Cable Switzerland Type 12 - C5 180°

2.5 A / 250 V Suitable for Switzerland, Liechtenstein, Ruanda

ArtNo.	Conductor Ø	Colour	Length
EK495.1,8V2	0.75 mm ²	Black	1.8 m





Power Cable Italy Type L - C13 180°

10 A / 250 V Suitable for Italy

ArtNo.	Conductor Ø	Colour	Length
FK538.1.8	0.75 mm ²	Black	1.8 m





Power Cable Italy Type L - C5 180°

2.5 A / 250 V Suitable for Italy

ArtNo.	Conductor Ø	Colour	Length
EK494.1,8	0.75 mm ²	Black	1.8 m





Power Cable Japan Type B - C13 180° VCTF

7 A / 125 V Suitable for Japan

ArtNo.	Conductor Ø	Colour	Length
EK490.1,8	0.75 mm ²	Black	1.8 m





Power Cable Japan Type B - C5 180° VCTF

2.5 A / 125 V Suitable for Japan

ArtNo.	Conductor Ø	Colour	Length
EK482.1.8	0.75 mm ²	Black	1.8 m





Power Cable China Type I - C13 180°

10 A / 250 V Suitable for China

ArtNo.	Leiter Ø	Farbe	Länge
EK492.1,8	0,75 mm ²	black	1,8 m
EK492.1,8V2	0.75 mm ²	Black	1.8 m





Power Cable China Type A - C7 180°

10 A / 250 V Suitable for China

ArtNo.	Conductor Ø	Colour	Length
EK480.1,8	0.75 mm ²	Black	1.8 m





Power Cable China Type I - C5 180°

10 A / 250 V Suitable for China

ArtNo.	Conductor Ø	Colour	Length
EK481.1,8	0.75 mm ²	Black	1.8 m





Power Cable Australia - C13 180°

Suitable for Australia, New Zealand, Papua New

ArtNo.	Conductor Ø	Colour	Length
EK493.1,8	0.75 mm ²	Black	1.8 m





Power Cable Australia - C13 90°

Suitable for Australia, New Zealand, Papua New Guinea

ArtNo.	Conductor Ø	Colour	Length
EK469.1,8	0.75 mm ²	Black	1.8 m





Power Cable Australia - C7 180°

Suitable for Australia, New Zealand, Papua New Guinea

ArtNo.	Conductor Ø	Colour	Length
EK487.1,8	0.75 mm ²	Black	1.8 m





Power Cable Australia - C5 180°

2.5 A / 250 V

Suitable for Australia, New Zealand, Papua New Guinea

ArtNo.	Conductor Ø	Colour	Length
EK468.1,8	0.75 mm ²	Black	1.8 m







Power Cable South Africa - C13 180°

10 A / 250 V

Suitable for South Africa, India

ArtNo.	Conductor Ø	Colour	Length
EK488.1,8	0.75 mm ²	Black	1.8 m





Power Cable South Africa - C13 180°

2.5 A / 250 V

Suitable for South Africa, India

ArtNo.	Conductor Ø	Colour	Length
EK467.1,8	0.75 mm ²	Black	1.8 m





Power Cable Israel 90° - C13 180°

Mains plug angled to IEC60320/C13 socket Cable assembly H05VV-F 3G 0.75 mm² 10 A / 250 V, colour black Suitable for Israel, Gaza Strip, Palestine, West Bank

ArtNo.	Conductor Ø	Colour	Length
EK491.1,8	0.75 mm ²	Black	1.8 m



Power Adapter IEC C14 to IEC C5, Cold Device Plug - Mickey Mouse

Power adapter 250 V/2.5 A max. Material PVC, black UL certified

ArtNo.	Description
EB515	Power adapter IEC C14 - IEC C5, Cold Device Plug - Mickey Mouse



Power Adapter IEC C14 to IEC C7, Cold Device Plug - Euro 8 Jack

Power adapter 250 V/2.5 A max. Material PVC, black UL certified

ArtNo.	Description
EB515.2	Power Adapter IEC C14 - IEC C7, Cold Device
	Plug - Euro 8 Jack



Power Adapter IEC C6 to IEC C7, Mickey Mouse Plug - Euro 8 Jack

Power adapter 250 V/2.5 A max. Material PVC, black UL certified

ArtNo.	Description
EB515.3	Mains adapter IEC C6 to IEC C7, Mickey Mouse
	plug - Euro 8 socket



Power Adapter IEC C20 to CEE7/3, Cold Device Plug - Protective Contact Jack

Power adapter 250 V/16 A max. Material PVC, black

ArtNo.	Description	
EB515.5	Mains adapter IEC C20 to CEE7/3, IEC plug -	
	protective contact socket	



Power Adapter CEE7/7 to IEC C13, Protective Contact Plug - Cold Device Jack

Power adapter 250 V/10 A max. Material PVC, black

ArtNo.	Description
EB515.6	Mains adapter CEE7/7 to IEC C13, earthing
	contact plug - mains socket



Power Adapter CEE7/7 to IEC C13 90°, Protective Contact Plug - Cold Device Jack

Power adapter 250 V/10 A max. Material PVC, black

ArtNo. Description		Description
	EB515.7	Mains adapter CEE7/7 to IEC C13 90°, earthing
		contact plug - IEC socket



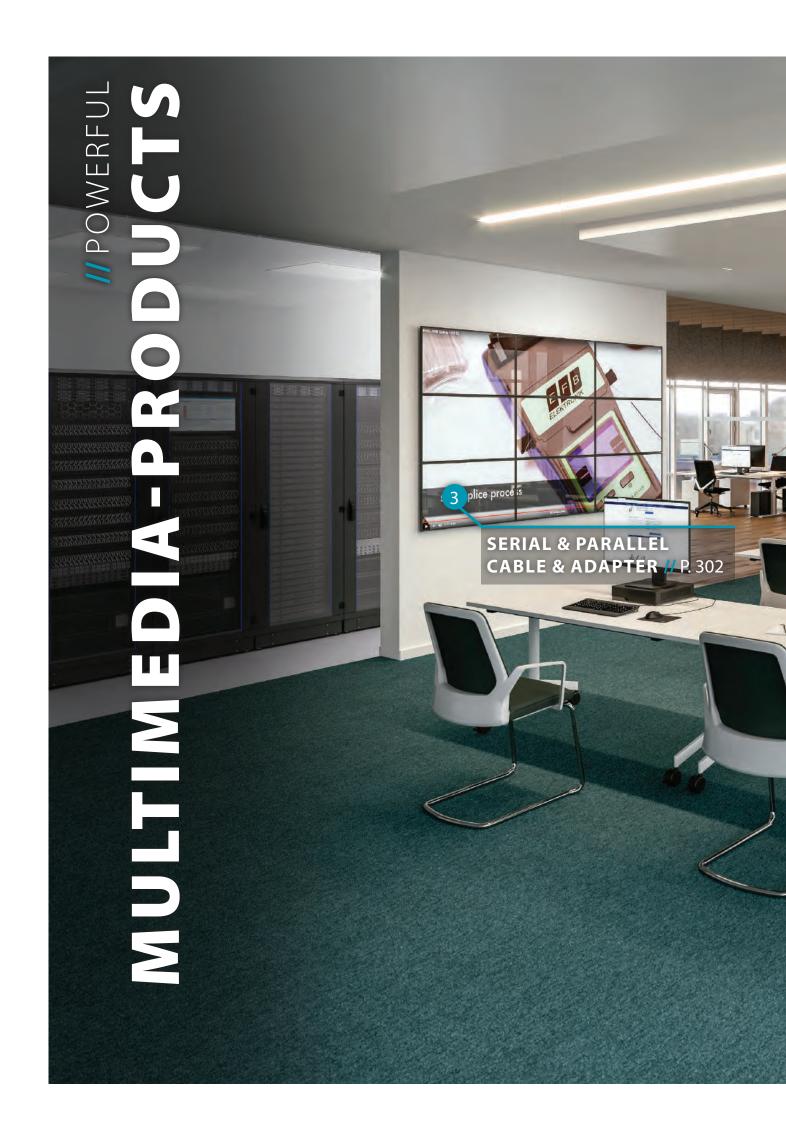
Power Adapter CEE7/16 to IEC C7, Euro Plug - Euro 8 Jack

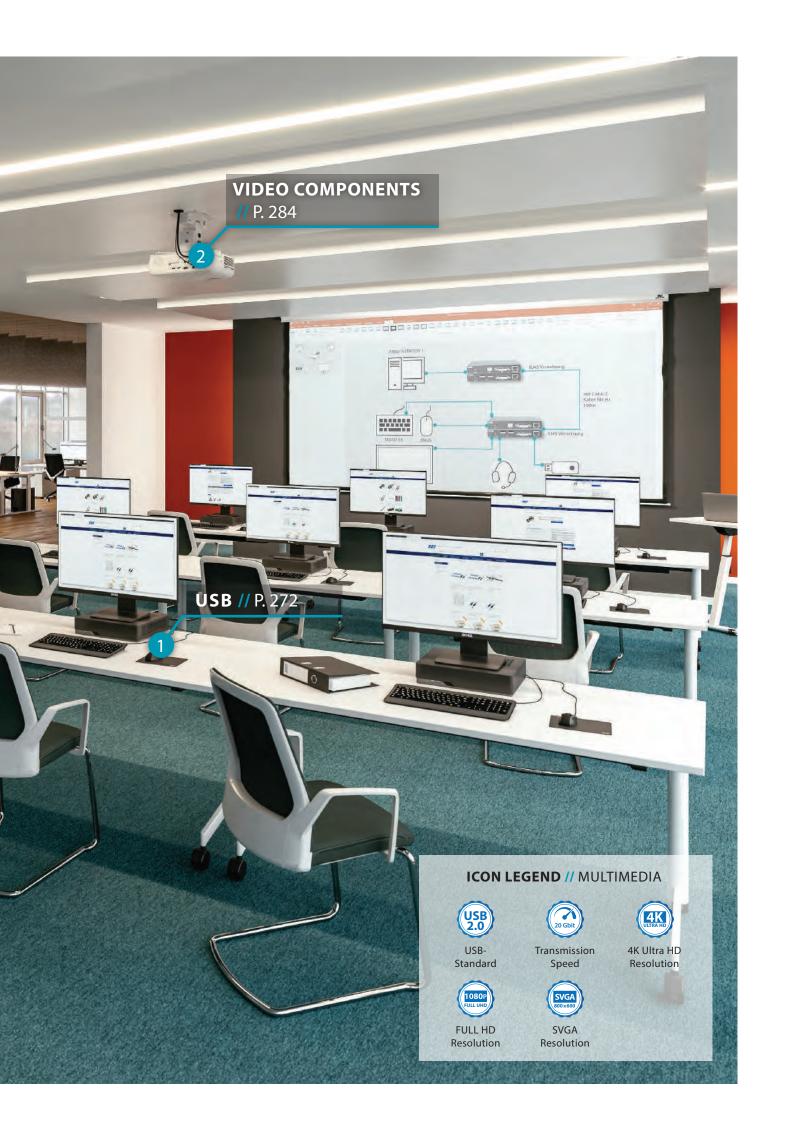
Power adapter 250 V/2.5 A max. Material PVC, black

ArtNo.	Description
EB515.8	Mains adapter CEE7/16 to IEC C7, Euro plug - Euro 8 socket











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USB3.0 Accessory	P. 279
USB2.0 Cable	P. 280
USB2.0 Accessory	P. 282

USB //

// YOU MIGHT ALSO BE INTERESTED IN:

USB Socket Strips	P. 252
USB Type C Video Cable	P. 286
19" Tablet Rack Module	P. 209

OVERVIEW OF CURRENT USB STANDARDS



With the publication of the USB3.2 standard 2019, the adoption of another new USB standard was already apparent.

The aim of the USB4 standard is to combine the USB and the Apple Thunderbolt Standard into one interface.

USB4 Cable can be fully compatible with the Thunderbolt3 interface, however, a corresponding chipset is required in the cables.



USB STANDARD	MAX. SPEED	MAX. CURRENT/POWER	CONNECTOR
USB4 Gen3 x 2	40 Gbit/s	5000 mA / 240W	Type C
USB4 Gen3 x 1	20 Gbit/s	5000 mA / 100 W	Type C
USB3.2 Gen2x2	20 Gbit/s	5000 mA / 100 W	Type C
USB3.2 Gen2	10 Gbit/s	5000 mA / 100 W	Typ A, Type C
USB3.2 Gen1*	5 Gbit/s	3000 mA / 15 W	Typ A; Type C
USB2.0	480 Mbit/s	500 mA / 2.5 W	Typ A; Typ B; Typ Mini-B; Typ Micro-B; Lightning
USB1.1	12 Mbit/s	500 mA / 2.5 W	Typ A; Typ B

^{*}Behind the USB3.2 Gen1, USB3.1 Gen1 and USB3.0 standards are the same specifications. This is just a name change.

CONNECTOR VARIANTS

CONNECTOR	VARIANTS	FEATURE	MAX. CABLE LENGTH (ACORDING TO STANDARD)
4 1	Typ A (USB2.0)	4 Pinswhite inlet1500 mating cycles	with USB2.0 cable: 5000 mm
5 9	Typ A (USB3.0/3.1/3.2)	 9 Pins blue inlet 1500 mating cycles (Standard) 5000 mating cycles (HDC) 	with USB3.0 cable: 3000 mm with USB3.2 cable: 1000 mm
4 3	Typ B (USB2.0)	4 Pinswhite inlet1500 mating cycles	with USB2.0 cable: 5000 mm
98765 1 2 4 3	Typ B (USB3.0)	9 Pinsblue inlet1500 mating cycles	with USB3.0 cable: 3000 mm
5	Typ Micro-B (USB2.0)	5 Pins10000 mating cycles	with USB2.0 cable: 2000 mm
1 5 6 10	Typ Micro-B (USB3.0/3.1)	10 Pins10000 mating cycles	with USB3.0 cable: 3000 mm with USB3.1 cable: 1000 mm
	Typ Mini-B (USB2.0)	5 Pins5000 mating cycles	with USB2.0 cable: 5000 mm
B12 B1 A1 A12	Type C (USB2.0/3.1/3.2/4)	24 Pins10000 mating cyclesverdrehsicher	USB3.2 2x2: 1000 mm USB3.2 Gen.1: 2000 mm other combinations possible USB4 Gen3x1: 2000 mm USB4 Gen3x2: 800 mm

EQUIP YOUR TYPE C DEVICE WITH SUITABLE CABLE AND ACCESSORY





USB4 40Gbit/s Connection Cable, TB3, 100W

USB4 Gen3x2 cable for connection as data, video and charging cable 40Gbit / s bandwidth

Thunderbolt 3 compatible Power delivery up to 100W Video resolution up to 10K30Hz, 8K60Hz oder 4K120Hz With E-Mark chip for safe power supply Downward compatible with USB3.2 and USB2.0

Connector 1: USB-C Plug moulded Connector 2: USB-C Plug moulded

Stock Lenghts: 0.5 - 1.0 m

ArtNo.	Colour
EBUSBC40-TB40G.0,8	black



USB4 20Gbit/s Connection Cable, TB3, 100W

USB4 cable for connection as data, video and charging cable 20Gbit/s bandwidth

Thunderbolt 3 compatible

Power delivery up to 100W

Video resolution up to 8K60Hz or 4K120Hz

With E-Mark chip for safe power supply

Downward compatible with USB3.2 and USB2.0

Connector 1: USB-C Plug moulded Connector 2: USB-C Plug moulded

Stock Lenghts: 0.5 - 1.0 m

ArtNo.	Colour
BIISBCAN_20G 2	black









USB3.2 Gen.2x2 20Gbit 5A Connection Cable Plug Type C to Plug Type C

USB3.2 Gen2x2 SuperSpeed connection cable 20Gbit transmission speed Charging with 100W / 20V /5A Reversible and both sides usable type-C plug With E-Mark chip in the plug

Connector 1: USB-C Plug moulded Connector 2: USB-C Plug moulded

Stock Lenghts: 0.5 - 1.0 m

ArtNo.	Colour
K5283-5ASW.x	black





USB3.2 Gen2 10Gbit 3A Type C -C Extension cable, passive

USB3.2 Gen2x2 SuperSpeed extension with type C male to type C female 10Gbit transmission speed Charging with up to 60W / 20V /3A

Reversible type C interface

Connector 1: USB-C Plug moulded Connector 2: USB-C Jack moulded

Stock Lenghts: 0.2 - 1.0 m

ArtNo.	Colour
FRUSBC-USBC10GE.x	black







USB3.2 Gen.1 5Gbit 3A Connection Cable Type C Plug to Type C Plug

Connector 1: USB-C Plug moulded Connector 2: USB-C Plug moulded Stock Lenghts: 0.5 - 1.0 m

ArtNo.	Colour
K5283SW.xV2	black







USB3.2 Gen.1 5Gbit 3A Connection Cable Type C Plug to Type A Plug

Connector 1: USB-A Plug moulded Connector 2: USB-C Plug moulded Stock Lenghts: 0.5 - 1.0 m

ArtNo.	Colou
K5282-3ASW.x	black





USB3.2 Gen1 5Gbit 3A Cable, Type C 90° angled - Type A jack

Connector 1: USB-A Plug moulded Connector 2: USB-C Plug moulded Stock Lenghts: 0.5 - 1.0 m

ArtNo.	Colour
EBUSBC-USBC5GAK.x	black







USB3.2 Gen.1 5Gbit Adapter Cable Type C male / Type A female

Connector 1: USB-A Jack moulded Connector 2: USB-C Plug moulded Stock Lenghts: 0.2 m

ArtNo.	Colour
K5313SW.0,2	black





USB2.0 Connection Cable Plug Type C to Plug Type A, Premium

Connector 1: USB-A Plug moulded Connector 2: USB-C Plug moulded

Stock Lenghts: 0.5 - 1.0 - 2.0 m

ArtNo.	Colour
K5258SW.x	Black





USB2.0 Cable, Type C Plug - Type A Plug, Classic

Connector 1: USB-A Plug moulded Connector 2: USB-C Plug moulded

Stock Lenghts: 0.5 - 1.0 m

Art.	-No.	Colour
EBU	SBC-USB20AK.x	Black





USB2.0 Cable Type C Plug to Type C Plug, Classic

Connector 1: USB-C Plug moulded Connector 2: USB-C Plug moulded Stock Lenghts: 0.5 - 1.0 - 2.0 - 3.0 m

ArtNo.	Colour
EBUSBC-USB20CK.1	black





USB2.0 Type C to Apple Lightning Cable, MFI cert.

Connector 1: USB-C Plug moulded Connector 2: Lightning moulded Stock Lenghts: 1.0 - 2.0 - 3.0 m

ArtNo.	Colour
FRUSBC-LIGHTMFLx	Black



USB Type C Adapter

ArtNo.	Description
EBUSBCM-MIKROBF	USB2.0 Adapter Type C Male - Micro-B Female
EBUSBCM-AF	USB3.0 Adapter Type C Male auf Typ-A Female
EB552	Keystone Snap-In Adapter USB3.1 black, Type-C-jack/C-jack 10Gbit/s, 60W
EB552WS	Keystone Snap-In Adapter USB3.1 white, Type-C-jack/C-jack, 10Gbit/s, 60W







USB3.2 Active Extender Cable

Active extender cable c devices.

Compatible with USB3.2, backwards compatible with USB3.0 and USB2.0

Supports a maximum distance of 10 m (by connecting several cables)

Supports up to 5V/900mA for Type-A and 1.5A for Type-C devices

Hint

1) For a 10Gbit bandwidth, the Type-C host must support 10Gbit transmission.

ArtNo.	Туре	Туре	Colour
EBUSBC-USBA10GE.5	USB3.2 10Gbit Type C to A Extender	USB3.2 10Gbit Type C to A Extender	black
EBUSBC-USBC10GE.5	USB3.2 10Gbit Type C to C Extender	USB3.2 10Gbit Type C to C Extender	black
EBUSBC-USBC-REP.5	USB3.2 5Gbit Type C auf C Extension	USB3.2 5Gbit Type C auf C Extension	black





USB Type C Netzwork Adapter

Network converter with Type-C connector and RJ45 output

Supports USB-C plug and play, hot swap

Supports 10M/100M/1G/2.5G(depending on the model) bandwidth

Supports twisted pair crossover detection and auto-correction

USB bus power (no external power supply)

Support WOL(Wake-On-LAN), Full Duplex flow(10M/100M/1G/2.5G Rate), Auto-Negotiation

Supports Operating system for computers:

Windows: Windows 7 / Windows 8/Windows10/ Windows Vista/ Windows XP (32/64bit) / Mac

OS X 10.6 to 10.12.5

ArtNo.	Туре	Colour
EBUSBC-RJ45-1000MBIT	USB Type C GigaBit Network Adapter	white
EBUSBC-RJ45-2500MBIT	USB Type C 2.5GBit Network Adapter	black

MORE TYPE C VIDEO-ADAPTER/-CONVERTER IN OUR VIDEOCOMPONENTS SUBCHAPTER ON PAGE 286.





USB Super Speed Hub 4-Ports with USB Type C-PD Cable, 60W

USB Type C Hub with 4 USB3.0 ports and 1 Type C powered device port, compact and lightweight in minimal design Fused with a USB Type-C connection cable, ideal for the new Macbook

Robust structure, elegant sandblasted aluminum finish

Allows you to connect up to 4 USB devices

Supports transfer rates of up to 5 Gbps, allows fast synchronization and leaves more time to work (or play)

The PD connector supports up to $60 \, \text{W} \, (20 \, \text{V} \, / \, 3 \, \text{A})$.

Compatible with USB3.0, 2.0, 1.1 and 1.0

Plug and Play

ArtNo.	Description

IUSB31C-HUB4TLY USB Super Speed Hub 4-Ports with USB Type C-PD Cable, 60W









USB Type C Docking Station to 3 x USB3.0, 1x HDMI 4K30Hz, 1x Type C PD

USB Type-C hub with 1x HDMI 4K, 3x USB A and 1 x USB Type-C PD port Expand your Type-C host device (e.g. notebook) with additional USB3.0 and HDMI 4K30Hz connections. 3x USB-A 3.0 ports for fast charging and data transfer with up to 5 Gbit / s 1x Type-C PD port with supports of up to max. 80W Robust metal housing

ArtNo.	Description

IADAP-USB31-DOCK4 USB Type-C to 3x USB3.0, 1x HDMI 4K @ 30Hz, 1x Type-C PD







USB Type C Docking Station to 2x USB3.0, HDMI, VGA, RJ45, USB Type C, SD

Multiport USB-C 8-in-1 docking station enables you to expand your PC or notebook. Expansion ports for 1x USB-C PD (up to 87W charging power), 1x HDMI port (max. 4K30Hz), 1x VGA port (max. 1080P), 1x Gigabit Ethernet port, 1x SD / TF card slot reader and 2x USB3.0 ports Ultra-fast data transmission of up to 5 Gbit/s and the HDMI connection enables Mirroring or extension of the video signal on an HD monitor with up to 4K30Hz resolution Stylish and slim design: aluminum housing, with fixed Type-C connection cable Simple operation: no installation or software required. An ideal USB-C expansion hub for all USB-C devices

ArtNo.	Description
ALC: NO.	Description

IADAP-USB31-DOCK3 USB Type-C Docking Station to 2x USB3.0, HDMI, VGA, RJ45, USB Type-C, SD

USB3.0 PREMIUM FEATURES

PREMIUM CableSERIES USB3.0 CHARACTERISTICS:

Data wire SuperSpeed: AWG30/7 bare copper tinned, paired in metal foil Electrical Conductor: AWG20/7 bare copper, tinned, Micro B: AWG24/7 bare copper, tinned

Shielding: Braiding 65% coverage

Reliability: up to 3000mm with max. load of 900mA assured!

USB3.0 CLASSIC FEATURES

CLASSIC Cable Series USB3.0 Characteristics:

The USB3.0 CLASSIC Series stands for an excellent price/quality relation. Proven cable technology for all standard application in SuperSpeed or HighSpeed Modus.





USB3.0 Connection Cable Type A Plug to Type B Plug, Premium

Connector 1: USB-A Plug moulded Connector 2: USB-B Plug moulded

Stock Lenghts: 1.0 - 1.8 - 3.0 m

ArtNo.	Colour
K5236.x	black





USB3.0 Connection Cable Type A Plug to Type B Plug, Classic

Connector 1: USB-A Plug moulded Connector 2: USB-B Plug moulded

Stock Lenghts: 1.0 - 1.8 - 3.0 m

ArtNo.	Colour
K5247SW.x	black





USB3.0 Connection Cable Type A Plug to Type A Plug, Premium

Connector 1: USB-A Plug moulded Connector 2: USB-A Plug moulded

Stock Lenghts: 1.0 - 1.8 - 3.0 m

ArtNo.	Colour
K5210SW.x	black





USB3.0 Connection Cable Type A Plug to Type A Plug, Classic

Connector 1: USB-A Plug moulded Connector 2: USB-A Plug moulded

Stock Lenghts: 1.0 - 1.8 - 3.0 m

ArtNo.	Colour
K5280SW.x	black





USB3.0 Extension Cable Type A Plug to Type A Jack, Premium

Connector 1: USB-A Plug moulded Connector 2: USB-A Jack moulded

Stock Lenghts: 1.0 - 1.8 - 3.0 m

ArtNo.	Colour
⟨5237.x	black





USB3.0 Extension Cable Type A Plug to Type A Jack, Classic

Connector 1: USB-A Plug moulded Connector 2: USB-A Jack moulded

Stock Lenghts: 1.0 - 1.8 - 3.0 m

ArtNo.	Colour
K5268SW.x	black



19" USB SOCKET STRIPS CAN BE FOUND IN THE CHAPTER POWER SUPPLY ON PAGE 252.





USB3.0 Connection Cable Type A Plug to Type A Panel Jack, Classic

Connector 1: USB-A Plug moulded Connector 2: USB-A Jack moulded Stock Lenghts: 0.5 - 1.0 - 1.8 m

ArtNo.	Colour
K5265SW.x	black





USB3.0 Connection Cable Type B Plug to Type B Panel Jack, Classic

Connector 1: USB-B Plug moulded Connector 2: USB-B Jack moulded

Stock Lenghts: 0.5 - 1.0 - 1.8 m

ArtNo.	Colour
K5264SW.x	black





USB3.2 Gen.1 Keystone Adapter A Female

Snap-In mounting (Keystone) Connecting adapter for USB cables 2x USB connectors Type A For data transmission rates up to 5Gbit/s Plastic housing Snap-in spring: plastic

ArtNo.	Description
EB537V2	Keystone Adapter USB3.2 Gen 1, A - A, black



USB3.0 Active Extension Cable, 5 m

Extends and amplifies the signal to any USB device with a Type A port - supports transfer rates up to 5 Gbit / s

The built-in repeater helps to maintain the signal quality, the electrical specifications and the timing of USB3.0

Extends the Connection up to 5 m without loss of signal Plug & Play;

Windows and Mac compatible - bus powered so no external power supply is required

ArtNo.	Description
ICUR3050	USB3.0 Active Extension Cable, 5 m





USB3.0 Desktop Extension Cable

USB jack type A moulded in plastic housing Additional USB jack type A for power supply

ArtNo.	Description	Length
EB458	USB3.0 Desktop Extension Cable	1.5 m



USB3.0 to Gigabit Ethernet

1 x USB3.0 - plug to 1 x RJ45 - jack Cable length: 109mm compatible zu USB2.0/3.0 Supports 10/100/1000 Mbps Plug & Play Plastic housing Powered by USB Port, no external power supply needed

ArtNo.	Description	
EB457	USB3.0 to RJ45 Gigabit Ethernet 10/100/1000	





USB3.0 Gigabit Ethernet Adapter with 3 Port USB Hub

Supports Gigabit Ethernet access for your PC/ Notebook/Tablet over your USB port 1x Full Duplex Gigabit Ethernet (RJ45) Port with 3 Port USB3.0 Hub

ArtNo.	Description
IDATA-USB-ETGIGA-3U2	Converter 1x USB A Male to 1x RJ45
	Female & 3x USB A Female





USB3.0 Hub 4-Port, Desktop

Supports the connecting up to four devices to one computer

Supported data transfer rates: 1,5/-12/-480 Mbps, 5 Gbit/s

Overload protection (per Port) Plug-and-Play, no software installation needed Compact design and incl. power supply

ArtNo.	Description	
FB3101	USB3.0 Hub 4-Port incl. 5V4A PS+Connection Cable	





USB3.0 Super Speed Hub 4-Port

Offers 4 x USB Type A ports and a 1x Micro-B USB port Ideal for charging USB3.0 or 2.0 devices such as telephones, cameras and MP3 players Equipped with power saving functions and overcurrent protection

The hub is compatible with the previous USB versions 2.0 and 1.1

ArtNo.	Description
IUSB3-HUB4-WH	USB3.0 Super Speed Hub 4-Port

USB2.0 PREMIUM FEATURES

PREMIUM Cable Series USB2.0 Stand Out Characteristics:

Twisted Pair data wire: AWG28/7 bare copper tinned Shielding 1: Tinned copper braiding 80% coverage Shielding 2: Aluminium foil 100% coverage Reliability: up to 5000mm with max. load of 500mA assured!

USB2.0 CLASSIC FEATURES

CLASSIC Cable Series USB2.0 Characteristics:

The USB2.0 CLASSIC Series stands for an excellent price/quality relation. Proven cable technology for all standard application in High Speed Modus.









USB2.0 Connection Cable Type A Plug to Type B Plug, Premium

Connector 1: USB-A Plug moulded Connector 2: USB-B Plug moulded

Stock Lenghts: 0.5 - 1.0 - 1.8 - 3.0 - 5.0 m

310ck Lengins. 0.3 - 1.0 - 1.6 - 3.0 - 3.0 iii		
	ArtNo.	Colour
	K5256SW.x	black



USB2.0 Connection Cable Type A Plug to Type B Plug, Classic

Connector 1: USB-A Plug moulded Connector 2: USB-B Plug moulded

Stock Lenghts: 0.5 - 1.0 - 1.8 - 3.0 - 5.0 m

ArtNo.	Colour
K5255.x	grey
K5255SW.x	black



USB2.0 Connection Cable Type A Plug to Type Mini-B Plug, Premium

Connector 1: USB-A Plug moulded Connector 2: USB-Mini B Plug moulded

Stock Lenghts: 0.5 - 1.0 - 1.8 - 3.0 - 5.0 m

ArtNo.	Colour
K5251SW.x	black









USB2.0 Connection Cable Type A Plug to Type Mini-B Plug, Classic

Connector 1: USB-A Plug moulded Connector 2: USB-Mini B Plug moulded

Stock Lenghts: 0.5 - 1.0 - 1.8 - 3.0 - 5.0 m

ArtNo.	Colour
K5250.xV2	grey
K5250SW.xV2	black



USB2.0 Connection Cable Type A Plug to Type Micro-B Plug, Premium

Connector 1: USB-A Plug moulded Connector 2: USB-Micro B Plug moulded

Stock Lenghts: 0.5 - 1.0 - 1.8 m

ArtNo.	Colour
K5232SW v	hlack



USB2.0 Connection Cable Type A Plug to Type Micro-B Plug, Classic

Connector 1: USB-A Plug moulded Connector 2: USB-Micro B Plug moulded

Stock Lenghts: 0.5 - 1.0 - 1.8 m

ArtNo.	Colour
K5228SW.xV2	black





USB2.0 Extension Cable Plug Type A to Type A Jack, Premium

Connector 1: USB-A Plug moulded Connector 2: USB-A Jack moulded Stock Lenghts: 0.5 - 1.0 - 1.8 - 3.0 - 5.0 m

ArtNo.	Colour
K5220SW.x	black





USB2.0 Extension Cable Plug Type A to Type A Jack, Classic

Connector 1: USB-A Plug moulded Connector 2: USB-A Jack moulded

Stock Lenghts: 0.5 - 1.0 - 1.8 - 3.0 - 5.0 m

ArtNo.	Colour
K5248.xV2	grey
K5248SW.xV2	black





USB2.0 Connection Cable Type A Plug to Type A Plug, Classic

Connector 1: USB-A Plug moulded Connector 2: USB-A Plug moulded

Stock Lenghts: 0.5 - 1.0 - 1.8 - 3.0 - 5.0 m

ArtNo.	Colour
K5253SW.x	black





USB2.0 Connection Cable Type B Plug to Type B Panel jack, Classic

Connector 1: USB-B Plug moulded Connector 2: USB-B Jack moulded Stock Lenghts: 0.5 - 1.0 - 1.8 - 3.0 m

ArtNo.	Colour
K5293SW.x	Black





USB2.0 Connection Cable Type A Plug to Panel Jack A, Classic

Connector 1: USB-A Plug moulded Connector 2: USB-A Jack moulded Stock Lenghts: 0.5 - 1.0 - 1.8 - 3.0 m

ArtNo.	Colour
K5291SW.x	black





USB2.0 Connection Cable Type A(90°) Plug to Type B Plug, Classic

Connector 1: USB-A 90° Plug moulded Connector 2: USB-B Plug moulded

Stock Lenghts: 0.5 - 1.0 - 1.8 - 3.0 - 5.0 m

ArtNo.	Colour
K5245SW.x	black





USB2.0 Extension Cable Plug Type A(90°) to Type A Jack, Classic

Connector 1: USB-A 90° Plug moulded Connector 2: USB-A Jack moulded

Stock Lenghts: 0.5 - 1.0 - 1.8 - 3.0 - 5.0 m

ArtNo.	Colour
K5246SW.x	black





USB2.0 Connection Cable Type A Plug to Type B Plug, LSZH

Connector 1: USB-A Plug moulded Connector 2: USB-B Plug moulded

Stock Lenghts: $0.5 - 1.0 - 1.8 - 3.0 - 5.0 \, m$

ArtNo.	Colour
K5203.x	black





USB2.0 Connection Cable Type A Plug to Type A Plug, black, LSZH

Connector 1: USB-A Plug moulded Connector 2: USB-A Plug moulded

Stock Lenghts: 0.5 - 1.0 - 1.8 - 3.0 - 5.0 m		
	ArtNo.	Colour
	K5204.x	black





USB2.0 Active Extender Cable 10m / 20m

Active USB2.0 extension

Thanks to the integrated amplifier, a stable USB2.0 HighSpeed speed is ensured

Model IUSB-REP10TY: Cascadable up to 3x for a total length of 30m Plug and Play; Compatible with Windows and Mac Bus-Powered - (no external power supply required)

ArtNo.	Description
IUSB-REP10TY	USB2.0 Active Extension Cable, 10 m
IUSB-REP220TY3	USB2.0 Active Extender Cable, 20m





USB2.0 Extender via Twisted Pair 100 Meter

Supports the connection up to four devices up to a length of 100 meters by using one Cat.5e/6 patchcable

Supports data transfer rates: 1,5/-12/-480 Mbps

Compact design

Plug & Play

Software installation needed to use all functions

Incl. software and power supply

ArtNo.	Description
EB2104	USB2.0 Extender Cat.5e/6 100m 4-Port, incl. PS



USB1.1 Extender up to 60m

Extends the range of barcode scanners, printers, digital cameras, keyboard / mouse and other USB devices from a USB-enabled computer via Cat. 5e/6 cable

Maximum length: up to 60 m Transmission speed: 12 Mbit/s

Powered by bus - no external power supply required Supports Windows XP, Vista, 7, 8, 8.1, 10; Linux and Mac OS

ArtNo.	Description
IUSB-EXTENDTY2	USB1.1 Extender up to 60m





USB2.0 Repeater Cable Type A Jack to Typ A Plug (cascadable)

USB2.0 Extension cable 5m, active 1-port hub with 5 m cable USB-A receptacle to USB-A plug Max. 4 x cascadable (= 25 m) Integrated ASIC Chip as signal repeater/buffer Power supply via USB-interface

ArtNo.	Description
K5263.5V3	USB2.0 Repeater Cable 5m active, USB-A Jack to USB-A Plug





USB2.0 Desktop Extension

USB desktop extension cable, length 1.5 metres USB plug series A to USB socket type A USB socket series A moulded in plastic base Additional USB socket type A for power supply

ArtNo.	Description
EB438V2	USB desktop extension cable, 1.5m, bw, A plug/A socket



4-Port USB2.0 Mini High Speed Hub

USB hub for connecting up to 4 USB devices with type A connector Ultra compact version

USB2.0 transfer rates up to 480 Mbit/s Downward compatible with earlier versions of USB1.1 Works with Windows and MacOS USB cable 0.4m included

ArtNo.	Description
IUSB2-HUB4-WHTY	4-Port Mini High Speed Hub USB2.0, white
IUSB2-HUB4-BKTY	4-Port Mini High Speed Hub USB2.0. black



USB2.0 - RS232 Converter

USB A plug to DSub 9-pole plug, 1.8 metres Supports RS-232, DB9, DB25 Connection of serial devices to USB Power supply via USB interface Chipset: FTDI-232RL With driver CD for Windows / Linux and Mac Systems Included in delivery: gender changer DB9 jack/DB25 plug

ArtNo.	Description
EB853C	USB2.0/RS232 Converter, USB Type A-Plug/DB9-Plug 1,8m



Internal USB-A Adapter Cable

Internal USB cable, length 0.2 m USB slot bracket with 2 x USB jacks Type A to 2 x 5 pole USB board connector(pitch 2.54) Interface adapter from USB controller to the housing

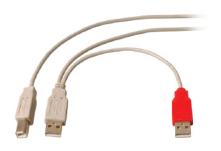
ArtNo.	Description USB Slotbracket 2x USB Receptacle Series A to 2x Spole board connector	
K5305.020V2		



USB Adapter Cable USB A Plug - Mini DIN 6pole Jack

USB plug type-A to MiniDIN 6 pole jack This adapter is only suitable for combination devices that have an integrated USB interface.

ArtNo.	Description
K5307.020	USB Adapter USB A - Mini DIN (6pole), M-F, beige



USB2.0 Y-cable, 1x USB B Plug / 2x USB A Plug

1 x USB-B plug to 2 x USB-A plug For additional power supply of USB devices that require up to 1A

Stock Lenghts: 1.0 m

ArtNo.	Description
K5304.x	USB2.0 Y-Cabel, 1x USB-B Plug - 2x USB-A Plug, 1m, beige





USB2.0 Keystone Adapter

Installation deph: 32 mm Housing Material: Plastic

For use in Keystone compatible frames

ArtNo.	Description
EB498V2	Keystone Snap-In Adapter USB2.0 A - A, white
EB527V2	Keystone Snap-In Adapter USB2.0 A - A, black
EB534	Keystone Snap-In Adapter USB2.0 A - B, black





VIDEO COMPONENTS //

P. 286
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P. 298
P. 300

// YOU MIGHT ALSO BE INTERESTED IN:

19" Tablet Rack Module	P. 209
RJ45 Patch Cable	P. 130



OVERVIEW VIDEOSTANDARDS

HDMI

The currently best-known video interface is particularly popular with home users. Standard support for modern video resolutions, audio formats and functions that simplify the operation of domestic home theater systems make this interface a favorite of many users.

Standard	HDMI1.4	HDMI2.0	HDMI2.1
Published	2009	2013	2018
Name	High Speed HDMI	High Speed HDMI	Ultra High Speed HDMI
Max. Data rate	min. 10,2Gbit/s	min. 18Gbit/s	min. 48Gbit/s
Max. Resolution	4K 30Hz	4K 60Hz	4K 120Hz; 8K 60Hz; 10K 30Hz
HDR	no	no (supported with HDMI2.0a)	yes

DISPLAYPORT & MINI DISPLAYPORT

Less known than HDMI, but no worse is the DisplayPort standard and it's more compact brother, the Mini DisplayPort. In terms of pure performance characteristics, it even has a higher capacity than HDMI. One of the great advantages of the DisplayPort connector is the locking option, making it a popular interface where DVI and VGA used to be standard. These properties and more make it popular in PC applications and in the industry.

Standard	DP1.2	DP1.4
Published	2009	2013
Max. Data rate	min. 17,28 Gbit/s	min. 25,92 Gbit/s
Max. Resolution	4K 60Hz	4K 120Hz, 8K 60Hz
HDR	no	yes

VIDEO OUTPUT OVER TYPE C (DP ALTERNATE MODE)

With the introduction of the Type C connector, we got another option for video transmissions. Its compact size makes it particularly attractive for use in mobile devices. Tablets, Smartphones and Notebooks can be equipped with an interface for modern video output without the devices losing their compact dimensions. The support of modern video standards is guaranteed by the DisplayPort Alternate Mode, which is based on the current DisplayPort standards.

Be it HDMI, DP, DVI or VGA, all Type-C Alternate Mode cables, adapters or docking stations with video output use the DP alternate mode to transmit the video signal. The properties of the DP Alternate mode are analogous to the normal DisplayPort standard. This means that you can also achieve a resolution of up to 8K at 60Hz with modern Type-C video cables.





USB Type C - DisplayPort Cable

Typ C to DisplayPort connection cable for connection between a USB Type C device like PC/Notebook/Tablet to a DisplayPort display Supports DisplayPort1.2/1.4 Alternate and HDCP Thunderbolt3 compatible

Stock lengths: 0.5 - 1.0 - 2.0 - 3.0 - 5.0 - 7.0 - 10 - 15 m

Art. No.	Description	Colour
EBUSBC-DP12K.2	USB Type C - DP1.2 Cable, 4K60Hz	black
EBUSBC-DP14.2	USB Type C - DP1.4 Cable, 8K60Hz	black



USB Type C - HDMI Cable

Typ C to HDMI connection cable for connection between a USB Type C device like PC/Notebook/Tablet to a HDMI display Supports DisplayPort1.2/1.4 Alternate and HDCP Thunderbolt3 compatible

Stock lengths: 0.5 - 1.0 - 2.0 - 3.0 - 5.0 - 7.0 - 10 - 15 m

Art. No.	Description	Colour
EBUSBC-HDMI-4K60K.2	USB Type C - HDMI Cable, 4K60Hz	black
EBUSBC-HDMI-4K30K.2	USB Type C - HDMI Cable, 4K30Hz	black
EBUSBC-HDMI-8K60K.2	USB Type C - DP1.4 Cable, 8K60Hz	white





USB Type C - DVI Cable, 1080P

Typ C to DVI connection cable for connection between a USB Typ C device like PC/Notebook/Tablet to a DVI display

Support DisplayPort 1.2 Alternate mode with max 1080P resolution and HDCP Thunderbolt 3 compatible

Stock lengths: 0.5 - 1.0 - 2.0 - 3.0 - 5.0 - 7.0 - 10 - 15 m

Art. No.	Description	Colour
EBUSBC-DVIK.2	USB Type C - DVI Cable, 1080P	black





USB Type C - VGA Cable, 1080P

Type C to SVGA/VGA connection cable for connection between a USB Type C device like PC/Notebook/Tablet to a SVGA/VGA display Support DP1.2 Alternate mode with max 1080P resolution Thunderbolt 3 compatible

Stock lengths: 0.5 - 1.0 - 2.0 - 3.0 - 5.0 - 7.0 - 10 - 15 m

Art. No.	Description	Colour
EBUSBC-VGAK.2	USB Type C - SVGA/VGA Cable, 1080P	black





USB Type C - HDMI Adapter

With the USB type C to HDMI adapter (DP alternate mode) you can connect a monitor with an HDMI port to the type C port of your PC / laptop / tablet. Supports the DP1.2 / 1.4 alternate mode with a max . Resolution of 4K60Hz Supports RGB / YCbCr 4: 4: 4 / YCbCr 4: 2: 2 / YCbCr 4: 2: 0, bit depth: 6bit , 8bit, 10bit, 12bit, HDR, HDCP

Thunderbolt3 compatible

USB bus powered (no external power supply)

Art. No.	Description	Colour
EBUSBC-HDMI-8K60	USB Type C - HDMI Cable, 8K60Hz	white
EBUSBC-HDMI-4K30	USB Type C - HDMI Cable, 4K30Hz	black
EBUSBC-HDMI-4K60	USB Type C - HDMI Adapter, 4K60Hz	black





USB Type C - DVI Adapter, 1080P

With the USB Type C to DVI adapter (DP Alternate mode) you can connect a monitor with a DVI port to the Type C port of your PC / laptop / tablet. Supports DisplayPort 1.2 Alternate mode Supports a maximum resolution of 1080P and HDCP

Thunderbolt3 compatible

USB bus powered (no external power supply)

Art. No.	Description	Colour
EBUSBC-DVI	USB Type C - HDMI Cable, 4K60Hz	black





USB Type C - DP1.4 Adapter, 8K60Hz

With the USB Type C to DisplayPort adapter (DP Alternate mode) you can connect a monitor with a DisplayPort port to the Type C port of your PC / laptop / tablet.

Supports DisplayPort 1.2 or 1.4 alternate mode Thunderbolt3 compatible

USB bus powered (no external power supply)

Art. No.	Description	Colour
EBUSBC-DP-8K30	USB Type C - DP1.4 Adapter, 8K60Hz	black
EBUSBC-DP-4K60	USB Type C - DP1.2 Adapter, 4K60Hz	white
EBUSBC-DP-4K60PD	USB Type C - DP1.2 Adapter, 4K60Hz, with Type C Charging Port	white





USB Type C - VGA Adapter, 1080P

With the USB Type C to SVGA / VGA adapter (DP Alternate mode) you can connect a monitor with SVGA / VGA port to the Type C port of your PC / laptop / tablet. Supports DP1.2 alternate mode with a maximum resolution of 1080P

IADAP-USB31-VGA

Type C Charging Port for charging of other devices Thunderbolt3 compatible

USB bus powered (no external power supply)

Art. No.	Description	Colour
IADAP-USB31-VGA	USB Type C - SVGA/VGA Cable, 1080P	white
IADAP-USB31-VU31	USB Type C - DVI Cable, 1080P	white





Ultra High Speed HDMI Kabel with Ethernet 8K 60Hz, with Premium Aluminium Connector

The new generation of HDMI-Cable with a bandwith of up to 48Gbit. Supports Features as Dynamic HDR, Dolby Vision und eARC. Also compatible to older HDMI standards.

Supports Ultra High Speed HDMI Video up to $8k\,60$ Hz eg. $4K\,120$ Hz resolution Dynamic HDR, HDCP2.2, 3D, Ethernet Channel, eARC

Triple shielding: Foil + Braid + PIMF

Conductor material: Blank copper, Jacket: PVC

Gold plated HDMI™ plugs and contacts, Premium EFB Aluminium housing for excellent EMC shielding

Stock lengths: 1,0 - 2,0 m

Art. No.	Description	Colour
K5440HQSW.x	USB Type C - HDMI Cable, 4K60Hz	black





Ultra High Speed HDMI Cable with Ethernet 8K 60Hz

8K60Hz Ultra HD resolution With Dynamic HDR, HDCP2.2, Dolby Vision und more. Compatible to older HDMI specificatons. Three way shielding: Foil + Braid + PIMF Conductor: Copper, Jacket: PVC Gold plated HDMI plugs and contacts Plug housing shielded and moulded

Stock lengths: 1,0 - 2,0 m

Art. No.	Description	Colour
K5440SW.x	Ultra HighSpeed HDMI™ Cable with Ethernet, 8K60Hz A-A, M-M	black





High Speed AOC HDMI Cable with Ethernet 4K 60Hz, HDMI over Fiber

Supports 4k60Hz UHD resolutions up to 100 meters Thinner and lighter than conventional copper cable No radiation, and highly resistant with EMI No external power supply needed One way signal transmission (plugs marked)

Stock lengths: 20,0 - 30,0 - 40,0 - 50,0 - 60,0 - 70,0 - 80,0 m

Art. No.	Description	Colour
K5431A0C.xV2	DisplayPort/DVI 24+1 Kabel, Full HD	black





High Speed HDMI Cable with Ethernet 4K 60Hz, Premium Certified

Supports High Speed HDMI Video up to Ultra HD 4k 60Hz resolution Premium Certification with barcode with re-traceble number Supports HDR, HDCP2.2, 3D, Ethernet Channel, ARC Tripple shielding: Foil + Braiding + PIMF Conductor: bare copper, Jacket: PVC HDMI™ plugs and contacts gold, housing moulded Stock lengths: 1,0 - 2,0 - 3,0 - 5,0 - 6,0 m

Art. No.	Description	Colour
K5431PRSW.x	HighSpeed HDMI™ Cable w. Eth. A-A, Premium cert., M-M	black







High Speed HDMI Cable with Ethernet 4K 60Hz

HDMI Double shielded: Foil + Braid HDMI™ Plugs and contacts gold plated Full HD - 3D up to 1080p and 4K2K HEC: HDMI™ Ethernet Channel, ARC: Audio Return Channel

Stock lengths: 0.5 - 1.0 - 2.0 - 3.0 - 5.0 - 10 - 15 - 20 m

Art. No.	Description	Colour
K5431SW.x	HighSpeed HDMI™ Connection Cable with Eth. A-A, M-M	black







High Speed HDMI Connection cable with Ethernet 4K 30Hz

Supports video resolutions up to 4K 30Hz Shielding: foil + shielded pairs Conductor: CCS, Jacket: PVC

HDMI[™] plugs and contacts gold plated and moulded Cable length up to 15m

Supported resolutions: Full HD@60Hz and 4K@30Hz HEC: HDMI™ Ethernet Channel, ARC: Audio Return Channel

Stock lengths: 0.5 - 1.0 - 2.0 - 3.0 - 5.0 - 7.0 - 10 - 15 m

Art. No.	Description	Colour
K5430SW.x	HighSpeed HDMI Connection cable	black
	with Ethernet 4K 30Hz	



High Speed HDMI™ Cable with Ethernet Plug Type A - Plug Type A / 2 x Ferrite

Supports video resolutions up to 4K 30Hz HDMI Double shielded: Foil + Braid HDMI™ Plugs and contacts gold plated HEC: HDMI™ Ethernet Channel, ARC: Audio Return Channel

Both sides assembled with ferrite cores to dejam signals in the cable

Stock lengths: 1,0 - 2,0 - 3,0 - 5,0 m

<u>4K</u>

Art. No.	Description	Colour
K7904.xV2	HighSpeed HDMI™ Cable with Ethernet Plug Type A - Plug Type A / 2 x Ferrite	black



High Speed HDMI Cable with Ethernet to DVI24+1 Full HD

Supports a max. resolution of 1920 x 1080P / Full HD

Shielding: foil + braiding Conductor: bare copper, Jacket: PVC HDMI™ plugs and contacts gold plated and moulded

Stock lengths: 1,0 - 2,0 - 3,0 - 5,0 m

Art. No.	Description	Colour
K5432SW.x	HighSpeed HDMI Cable with Ethernet to DVI24+1 Full HD	black



Keystone Adapter HDMI™ A - A

Snap-In mounting (Keystone)
Connecting adapter for HDMI cables
2x HDMI connectors Type A
Plastic housing
Snap-in spring: plastic
Recommended for distribution panels with keystone breakout

Not recommended for use in frame sets with angled outlet

Art. No.	Description	
EB479V2	Keystone Snap-In Adapter HDMI A - A, white	
EB520V2	Keystone Snap-In Adapter HDMI A - A, black	





DVI 24+1 Dual Link Connection Cable

Cable for Digital Visual Interface Molex compatible Dual-Link + analog Suitable for resolutions up to 2560 x 1600

Stock lengths: 2.0 - 3.0 - 5.0 - 10 - 15 - 20 m

Art. No.	Description	Colour
K5434.x	DVI 24+1 Dual Link Connection Cable	black





DVI/VGA 12+5 Connection Cable (analog)

DVI to VGA Cable For display devices with VGA interface

Stock lengths: 2.0 - 3.0 - 5.0 m

Art. No.	Description	Colour
K5436.xV2	DVI/VGA 12+5 Connection Cable (analog)	black



DVI 24+1 Dual Link Industrial Connection Cable

Shielding: foil + braiding

Conductor: bare copper, Jacket: PVC

Tinned plugs and gold plated contacts, housing with full-metal shielding and moulded, for ideal shielding characteristics in rough industrial environment.

Both sides assembled with ferrite cores to dejam signals in the cable (for better EMC characteristics)

Dual link cable

Support for resolution up to 2560 x 1600

Stock lengths: 2.0 - 3.0 - 5.0 m

Art. No.	Description
K5434IND.x	DVI 24+1 Dual Link Industrial Connection Cable



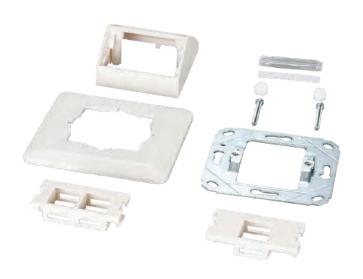


DVI 18+1 Single Link Connection Cable

Cable for Digital Visual Interface Molex compatible Single Link Suitable for resolutions up to 1920 x 1200

Stock lengths: 2.0 - 3.0 - 5.0 - 10 - 15 - 20 m

Art. No.	Description	Colour
K5433.x	DVI 18+1 Single Link Connection Cable	black











Multifunctional frame set with 1- and 2-port adapter

Multifunction frame set in signal white (RAL9003) for universal use, whether for RJ45 data connections, fiber optic connections, HDMI or Display Port connections for meeting rooms or data outlets for USB in keystone format. With the multifunctional frame set, you can cover all these areas with just one product.

The frame set is designed in such a way that it is possible to accommodate the various space requirements of cables and connectors during installation. Thus it is also possible to upgrade existing installations and bring them into a structured shape.

Scope of delivery (ET-25092):

1x frame set UP

1x 1-Port Adapter

1x 2-Port Adapter

Optional accessories (not included): Display Port Adapter (ET-25092.4)

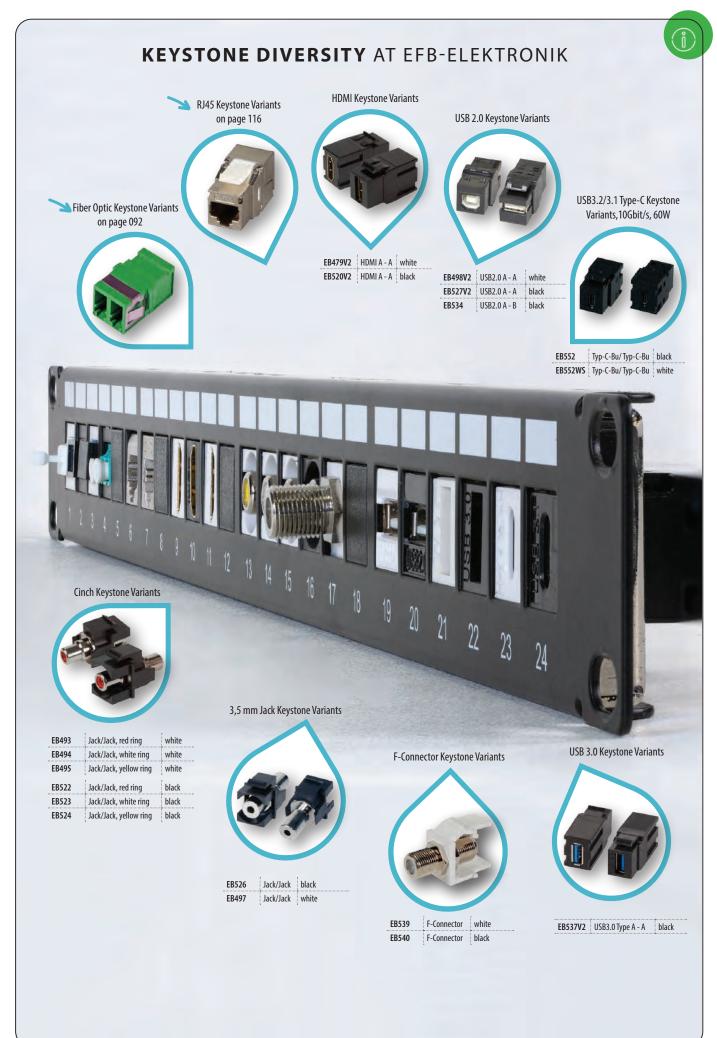
Adapter frames for use with other switch ranges (Berker, Gira, Jung, Merten)

Art. No.	Description
ET-25092	Multifunctional frame set with 1- +2-port adapter Keystone Format(HDMI,USB,RJ45)
ET-25092.3	Multifunctional frame set without adapter for Keystone Format(HDMI,USB,RJ45)

Accessory

Art. No.	Description
ET-25092.4	Displayport Adapter for ET-25092 and ET-25092.3
ET-25092.1	1-Port Adapter for ET-25092.3 for Keystone Format(HDMI,USB,RJ45)
ET-25092.2	2-Port Adapter for ET-25092.3 for Keystone Format(HDMI,USB,RJ45)
ET-25092.8	Adapter frame for design compatibility to Gira, RAL9003
ET-25092.5	Adapter frame for design compatibility to Berker, RAL9003
ET-25092.6	Adapter frame for design compatibility to Jung, RAL9003
ET-25092.7	Adapter frame for design compatibility to Merten, RAL9003







DisplayPort Cable, 8K 120Hz

According to DisplayPort1.4 standard Resolution up to 8K Ultra HD (7680 x 420 @ 60Hz) Conform to HDCP2.2 DisplayPort plugs and contacts gold plated Tripple shielding Conductor: bare copper, Jacket: PVC Pin 20: DP_PWR not connected Housing with 360° shielding, moulded and DP lock

Stock lengths: 1,0 - 2,0 - 3,0 - 5,0 m

Art. No. Description K5568SW.1

DisplayPort Cable,male-male, 1m, black, 8K120Hz





DisplayPort1.4 Cable 8K 60Hz

According to DisplayPort1.4 standard Resolution up to 8K Ultra HD (7680 x 420 @ 60Hz) Conform to HDCP2.2 DisplayPort plugs and contacts gold plated Tripple shielding Conductor: bare copper, Jacket: PVC Pin 20: DP_PWR not connected

Housing with 360° shielding, moulded and DP lock

Stock lengths: 1,0 - 2,0 - 3,0 - 5,0 m

Art. No.	Description	Colour
K5567SW.x	DisplayPort1.4 Cable 8K 60Hz,A-A M-M	black





DisplayPort1.4 AOC Hybrid Cable 8K 60Hz

8K Fiber Optic DisplayPort cable for long length applications

Assembled with black tinned metal plug and DP laser imprint Supports resolutions up to 8K @ 60Hz or 4K @ 120Hz Supports a bandwidth of 32.4 Gbps Resistant to EMC

Stock lengths: 1,0 - 2,0 - 3,0 - 5,0 m

Art. No.	Description	Colour
ICOC-DSP-HY-0xx	DisplayPort1.4 AOC Hybrid Cable 8K 60Hz	black







DisplayPort1.4 Cable 8K 60Hz, with Premium Zinc-die-cast housing

Conform to DisplayPort v1.4 Standard Resolution up to 8K Ultra HD (7680 x 420 @ 60Hz Conform to HDCP 2.2

Premium zinc-die-cast housing with full shielding and lockable

Gold plated plugs and contacts Tripple shielding Conductor material: blank copper, Jacket: PVC Pin 20: DP_PWR nicht verbunden

Stock lengths: 1,0 - 2,0 - 3,0 - 5,0 m

Art. No.	Description	Colour
K5567HQSW.x	USB Typ C - DVI Kabel, 1080P	black







DisplayPort 1.4 Extender cable 8K60Hz

For Extension of DisplayPort connection Compliant with DisplayPort v1.4 standard Resolutions up to 8K / Ultra HD (7680 x 420 @ 60Hz) Compliant with HDCP 2.2 Triple shielding

Conductor material: bare copper, jacket: PVC Gold-plated DisplayPort connectors and contacts Connector lockable

Stock lengths: 1,0 - 2,0 m

Art. No.	Description	Colour
K5569SW14.x	DisplayPort1.4 Cable 8K 60Hz,A-A M-M	black





DisplayPort 1.2 Cable 4K 60Hz, with Premium Zinc-die-cast housing

According to DisplayPort1.4 standard Resolution up to 4K Ultra HD (4096 x 2160 @ 60Hz) **Premium zinc-die-cast housing with full shielding and lockable**

DisplayPort plugs and contacts gold plated Tripple shielding

Conductor: bare copper, Jacket: PVC Pin 20: DP_PWR not connected

Stock lengths: 0.5 - 1.8 - 3.0 - 5.0 - 10 m

Art. No.	Description	Colour
K5560HQSW.x	DisplayPort1.2 Cable 4K 60Hz, M-M	black







DisplayPort 1.2 Cable 4K 60Hz

According to DisplayPort1.4 standard Resolution up to 4K Ultra HD (4096 x 2160 @ 60Hz) DisplayPort plugs and contacts gold plated Tripple shielding

Conductor: bare copper, Jacket: PVC Pin 20: DP_PWR not connected

Stock lengths: 0.5 - 1.8 - 3.0 - 5.0 - 10 m

Art. No.	Description	Colour
K5560SW.x	DisplayPort1.2 Cable 4K 60Hz, M-M	black





DisplayPort - HDMI Cable, 4K 60Hz

DisplayPort to HDMI Adapter cable with one sided signal way DisplayPort => HDMI output device Supports 4K @ 60Hz resolution Shielding: foil + braiding

Conductor: bare copper, Jacket: PVC
Plugs and contacts gold plated HDM

Plugs and contacts gold plated, HDMI side moulded, DP mounted with locking protection Pin 20: DP_PWR not connected

Stock lengths: 1,0 - 2,0 - 3,0 - 5,0 m

Art. No.	Description	Colour
K5561HQSW.x	USB Typ C - DP1.2 Kabel, 4K60Hz	black



DisplayPort - HDMI Cable, Full HD

Supports Full HD - 3D up to 1080p Shielding: foil + braiding Conductor: bare copper, Jacket: PVC Plugs and contacts gold plated, HDMI side moulded, DP mounted with locking protection Pin 20: DP_PWR not connected

DisplayPort to HDMI Adapter cable with one sided signal way DisplayPort => HDMI output device

Stock lengths: 1,0 - 2,0 - 3,0 - 5,0 m

Art. No.	Description	Colour
K5561SW.xV2	DisplayPort/HDMI Cable Full HD,M-M	black



DisplayPort/DVI24+1 Cable, Full HD

DisplayPort to DVI-I 24+1 adapter cable with one sided signal way DisplayPort => DVI-D 24+1 output device

Supports resolutions up to 1080P (Full HD) Shielding: foil + braiding

Conductor: bare copper, Jacket: PVC

Plugs and contacts gold plated, DVI side moulded, DP mounted with locking protection

Pin 20: DP_PWR not connected

Stock lengths: 1,0 - 2,0 - 3,0 - 5,0 m

Art. No.	Description	Colour
K5564SW.xV2	USB Type C - VGA Adapter, 1080P	black





DisplayPort Adapter, DP Male to HDMI™ A Female 4K 30/60Hz

Adapter to connect DisplayPort graphic controller to HDMI displays

Supports 4k@30Hz resolution

One sided signal way DisplayPort => HDMI output device

DisplayPort v1.2 compliant Supports HDCP 1.3 and DPCP

Art. No.	Description	Colour
EB484-4K30	DisplayPort Adapter,DP male/ HDMI female 4K 30HZ	black
EB484-4K60	DisplayPort Adapter,DP male/ HDMI female 4K 60HZ	black





DisplayPort Adapter, DP Male to HDMI™ A Female Full HD

Adapter to connect DisplayPort graphic controller to HDMI displays Supports Full HD resolution

One sided signal way DisplayPort => HDMI output device DisplayPort v1.2 compliant Supports HDCP 1.3 and DPCP

Art. No.	Colour
EB484	black





DisplayPort Adapter, DP Male to DVI-I 24+5 Female Full HD

Adapter for connecting DisplayPort graphics cards to HDMI/DVI monitors

One-sided signal direction: DisplayPort =>DVI output device

DisplayPort v1.1 compliant Supports HDCP 1.3 and DPCP

Art. No.	Colour
EB485V2	black





HDMI/DisplayPort Converter Cable 4K60Hz

For connecting a display with a Displayport interface to an HDMI device.

Cable converter with HDMI plug and, DisplayPort socket for connecting with a Displayport cable. Max. Resolution: up to 4K @ 60Hz in 4: 4: 4 format HDMI: Supports 8/10/12-bit Deep Color, HDCP1.4 / 2.2, HDR,

Art. No.	Colour
EB489	black





Mini-Displayport – Displayport Cable 4K 60Hz

DisplayPort v1.2 compliant Supports resolutions up to 2560 x 1600 Supports HDCP 1.3 and DPCP Colour black

Stock lengths: 1.0 - 2.0 - 3.0 m

Art. No.	Description	Colour
K5565SW.x	Mini-Displayport — Displayport Cable 4K 60Hz	black



Mini DisplayPort - DVI Cable

Shielding: foil + braiding

Conductor: bare copper, Jacket: PVC Plugs and contacts gold plated, Plugs moulded

Mini DisplayPort to DVI-D 24+1 Adapter cable with one sided signal way Mini-DisplayPort => DVI-D 24+1 output device

Supports resolution up to 1920 x 1200

For connection of apple device with external display

Stock lengths: 1.0 m

Art. No.	Description	Colour
K5563.x	USB Typ C - DP1.2 Adapter, 4K60Hz	white





Colour

white

Mini-DisplayPort to HDMI Adapter cable with one sided signal way

Converter Mini DisplayPort Plug - HDMI™ Type A Jack

Mini-Display Port 1.2 - HDMI Cable

Plugs and contacts gold plated, Plugs moulded

For connection of apple device with TV or display

Mini-Display Port 1.2 - HDMI Cable

Mini-DisplayPort => HDMI output device

Conductor: bare copper, Jacket: PVC

Supports Full HD - 3D up to 1080p

Description

Shielding: foil + braiding

Stock lengths: 1.0 m

Art. No.

K5562.xV2

Adapter/converter Mini-DisplayPort 20-pin plug (Thunderbolt) to HDMI

Supports max resolution of 1080p (IADAP-MDP-HDMIF) or 4K 30Hz (IADAP-MDP-HDMIF12)

Art. No.	Description	Colour
IADAP-MDP-HDMIF	Converter - Mini-DisplayPort to HDMI, FullHD	white
IADAP-MDP-HDMIF12	Converter - Mini-DisplayPort1.2 to HDMI, 4K30Hz	white





Converter Mini DisplayPort Plug - DVI-I Jack

Adapter/converter Mini-DisplayPort 20-pin plug (Thunderbolt) to DVI-I jack Supports max resolution of 1080p

Art. No.	Description	Colour
IADAP-MDP-DVIF	Converter - Mini-DisplayPort to DVI, FullHD	white





Converter Mini DisplayPort Plug - VGA Jack

Adapter/Konverter Mini-DisplayPort 20-pin plug (Thunderbolt) to VGA jack Supports resolutions up to 1920x1200

Art. No.	Description	Colour
IADAP-MDP-VGAF2	Converter - Mini-DisplayPort 1.2 to VGA, FullHD	white









MiniDisplayPort 3-way Converter

Mini DisplayPort Multi Converter, 1 converter for HDMI, DVI, and DisplayPo-

Mini DisplayPort to HDMI, DVI-D 24+1 or DisplayPort converter with one sided signal way

Mini DisplayPort => HDMI, DVI-D 24+1, DisplayPort output device Supports resolution up to 1920 x 1200

Art. No.	Description
EB986	Mini-Display-Port 3-way Converter, FullHD





SVGA/HDTV Connection Cable

Double shielded display cable specially capable against outer interference 75 Ohm, double-shielded, with 2 x ferrite cores With thumb screws, moulded, black Construction: 3×3 coax RGB and 5×3 control lines

Stock lengths: 1.8 - 3.0 - 5.0 - 7.0 - 10 - 15 - 20 - 25 - 30 m

Art. No.	Description	Colour
K5326SW.xV2	SVGA/HDTV Connection Cable	black





SVGA/HDTV Extension Cable

Double shielded display cable specially capable against outer interference 75 Ohm, double-shielded, with 2 x ferrite cores With thumb screws, moulded, black Construction: $3 \times \cos x$ RGB and $5 \times \cot x$ lines

Stock lengths: 1.8 - 3.0 - 5.0 - 7.0 - 10 - 15 - 20 m

Art. No.	Description	Colour
K5327SW.xV2	SVGA/HDTV Extension Cable	black



VGA Connection Cable

1:1 wired Shielded Moulded With thumb screws

Stock lengths: 2.0 - 3.0 - 5.0 - 10 m

Art. No.	Description	Colour
EK324.x	VGA Connection Cable	beige



VGA Extension Cable

1:1 wired Shielded Moulded With thumb screws

Stock lengths: 2.0 - 3.0 - 5.0 m

Art. No.	Description	Colour
EK322.x	VGA Extension Cable	beige



DVI-A 24+5 - HD-15 Adapter

Adapter for DVI and VGA (HD15) Moulded Gold plated contacts Screw 4-40#

Art. No.	Connection 1	Connection 2	Colour
EB460	DVI-I 24+5 Plug	HD-D-Sub 15-pole Jack	black
EB462	DVI-I 24+5 Jack	HD-D-Sub 15-pole Plug	black



ATEN

19" KVM Switches Cat.5 with 19" LCD Consoles "DUAL RAIL"

KVM-Switch console with 19" LCD display for remote control of up to 256 or 512 PCs

Multiplatform support: PS/2, USB, Win, Mac, Sun and terminal-based systems Supports up to 40 m cable length between KVM and PC or serial devices RJ45 ports for Cat.5e/6/7 based cables

Firmware upgrade feature, Auto-scan mode

Compact and slidable

Dual Console - one additional console port for external console

Dual Rail - display is depth adjustable

Separately cascade port (Daisy Chain), cascadable with KH-1508/1516 19"/1U rack mounting with adjustable mounting depth

Art. No.	Description
KL-1508AN	8-Port KVM Switch Cat.5 + Console 19"/1U with 19" LCD
KL-1516AN	16-Port KVm Switch Cat.5 + Console 19"/1U with 19 "LCD

Accessory

Art. No.	Description	
KA-9140	Serial/VT100 CPU Module for KH- and KL-types	
KA-7570	VGA-USB KVM Connection module for KH- and KL-types	
KA-7168	HDMI-USB KVM-Connection cable for KH-KL-Types	
KA-7169	DP-USB KVM-Connection cable for KH-KL-Types	



Aten 8-/16-Port KVM Switch + 17" LCD Console

KVM-Switch console with 17" LCD display for remote control of up to 256 or 512 PCs $\,$

Firmware upgrade feature, Auto-scan mode

Compact and slidable

ATEN

Dual Console - Additional port for one externalal console USB/PS/2 1 external USB port for a external USB mouse and USB1.1 peripherals Separately cascade port (Daisy Chain), cascadable with ACS-1208A, ACS-1216A 19"/1U rack mounting with adjustable depth

Art. No.	Description
CL-5708M	8-Port KVM Switch PS2 + Console 19"/1U with 17"LCD
CL-5716M	16-Port KVM Switch PS2 + Console 19"/1U with 17"LCD

Accessory

Art. No.	Description
2L-1701	Cascading-Cable for KVM 1.8m
2L-1705	Cascading-Cable for KVM 5.0m
2L-5202P	KVM PS/2 Cable 1.8m
2L-5203P	KVM PS/2 Cable 3.0m
2L-5206P	KVM PS/2 Cable 6.0m
2L-5202UP	KVM USB Cable 1.8m
2L-5203UP	KVM USB Cable 3.0m
2L-5206UP	KVM USB Cable 6.0m



ATEN

Aten KVM Switch Cat.5 19"/1U

KVM-Switch console for remote control of up to 256 or 512 PCs Separately cascade port (Daisy Chain)

K1508AI/1516AI with additional RJ45 port for IP access

Multiplatform support: PS/2, USB, Win, Mac, Sun and terminal-based systems Supports up to 40 m cable length between KVM and PC or serial devices RJ45 ports for Cat.5/6/7 based cables

Firmware upgrade feature, auto-scan mode

Daisy Chain port for daisy-chain with KH-1508/1516

19"/1U rack mounting

Art. No.	Description
KH-1508A	8-Port KVM Switch Cat.5 19"/1U, Adapter ID
KH-1516A	16-Port KVM Switch Cat.5 19"/1U, Adapter ID
KH-1508AI	8-Port KVM IP Switch 19"/1U KVM over IP, Dual Bus
KH-1516AI	16-Port KVM IP Switch 19"/1U KVM over IP, Dual Bus

Accessory

Art. No.	Description
KA-9140	Serial/VT100 CPU Module for KH- and KL-types
KA-7570	VGA-USB KVM Connection module for KH- and KL-types
KA-7168	HDMI-USB KVM-Connection cable for KH-KL-Types
KA-7169	DP-USB KVM-Connection cable for KH-KL-Types
CL-1000M-AT-GG	Slideaway Console 17", PS/2 with german keyboard





ATEN

Aten 17" LCD PS/2 Console

KVM console plus 17" LCD display in compact, slideable design 19"/10 rack mounting with adjustable depth Included: 1 x 2L-5202P (KVM-PS2-Cable), 1 x standard-mounting-kit

Art. No.	Description
CL-1000M-AT-GG	Slideaway Console 17", PS/2 with german keyboard







KVM Switch USB, HDMI

KVM-Switch for remote control of multiple PC's with HDMI (display) and USB (mouse/keyboard) interfaces

Switching between PC's with front button or hotkeys Supports resolutions of 4K / 30Hz and PC UXGA 1920x1200

Supports Dolby TrueHD and DTS HD Master audio formats

HDMI v1.4 - & HDCP-compatible Metalhousing for better EMC shielding

Included: 1x HDMI KVM-USB Switch, 1 x power supply, 2x or 4x HDMI A male & USB 2.0 A male to HDMI A male & USB 2.0 B male cable, short manual

Art. No.	Description
IDATA-KVM-HDMI2U	KVM Switch USB, HDMI, 4K, 2 ways
IDATA-KVM-HDMI4U	KVM Switch USB, HDMI, 4K, 4 ways







KVM-Switch, DisplayPort, USB-Hub, Dual-View

KVM Switch for switching between 2/4 PCs with DisplayPort interface, to control 2/4 PCs with one Keyboard/Mouse, Monitor Set.

Supports Dual View projection for 2 displays. Max. resolution 3840x2160 @ 30Hz (4K) Integrated 2-Port-Hub for shared USB2.0 devices Supports Dolby True HD and DTS HD Master Audio Formats

Hotkey and Key-Switching

Included: 1x 2/4-Port DisplayPort1.2 Dual-View KVM-Switch,1x Manual, 1x Power Supply 5V/2A

Art. No.	Description
IDATA-DP-KVM2	KVM Switch DP 1.2, 2 Port, Dual-View, with USB-Hub
IDATA-DP-KVM4	KVM Switch DP 1.2, 4 Port, Dual-View, with USB-Hub



2-Port Mini-Cable-KVM Switch HDMI/VGA/DVI/DP

For remote control of 2 PCs with VGA/HDMI/DVI or DisplayPort (depending on choice of type) and USB interface

With full audio support

Connection of an Additional USB2.0 device possible LEDs for status display

Remote button for port selection, Auto-scan mode

Art. No.	Description
EB977	2-Port KVM VGA-USB-Audio with cable sets 2x 0,9m
EB978	2-Port KVM DVI-USB-Audio with cable sets 2x 0,9m
EB979	2-Port KVM HDMI-USB-Audio with cable sets 2x 0.9m
EB973V2	2-Port DisplayPort-USB-Audio with cable sets 2x 0.9m







KVM Extender Set HDMI-USB-Audio, up to 60m

KVM Cat.5e/6 RJ45 Extender Set for remote control of PCs with HDMI (display) and USB(mouse/keyboard) interface.

Max. transmission distance of up to 60m Transmission of uncompressed 1080p @ 60Hz HDMI-Signal over 1x 5e / 6-Networkcable With integrated microfon and 3,5 mm audio jack Power over Cable: Only 1 power supply neccessary, Receiver unit gets power over the network

With additional HDMI out at Transmitter unit.

Included: KVM Extender Set, 1 power supply, quick manual

Art. No.	Description	
IDATA-HDMI-KVM60	HDMI-KVM Extender over CAT5	





KVM Extender Set HDMI-USB, up to 120m

KVM Cat.5e/6 RJ45 Extender Set for remote control of PCs with HDMI (display) and USB (mouse/keyboard) interface.

Max. transmission distance of up to 120m Max. resolution of 1080p @ 60Hz over 1x 5e / 6-network cable

Included: KVM Extender Set, 1 power supply, quick manual

Art. No.	Description
IDATA-HDMI-KVM2	HDMI KVM Extender over Network Cable, 120m





Aten KVM Extender Set VGA-USB, up to 150m

Extends the VGA-USB console port of a PC or KVM switch

Category 5/6/7 RJ45 cable up to 150 m for the remote console

Operation via local or remote console Automatic signal compensation

Included: 1 x cable set USB 1.8 m, 1 x 19 " mounting kit, 2 x power supply

Art. No.	Description
CE-700A	KVM Extender Set VGA - USB , RJ45





KVM Extender Set DVI-USB-Audio - USB2.0 Hub, up to 50m

KVM Cat.5/6 RJ45 Extender up to 50 m 1-Port USB2.0 Hub to connect external USB devices Controlling via remote console

Included: 1 x DVI-D Cable plug/plug 1m, 1 x USB2.0 Cable A-B 1m, 1 x USB A power supply cable 1m, 1 x power supply, 1 x EB963 Transmitter, 1 x EB963 receiver. 1 x User manual

Art. No.	Description
FR963	KVM Extender Set DVI IISR Transmitter + Receiver





HDMI HDBaseT Extender 4K30Hz up to 100m

HDMI™ Extender with HDBaseT extend technology Uncompressed video and audio signal over 1 x Cat.5/6/6a network cable

Support for resolutions up to UltraHD (4Kx2K, Full HD 1080P@60Hz, 3D)

Extend the video signal over one network cable up to 100 \mbox{m}

Support bi-directional IR pass back

Support HDCP, CEC, 24 deep color, uncompressed LPCM audio and compressed DTS-HD, Dolby True HD Without PoH/PoC function

Included: HDBaseT Extender Set (Transmitter/ Receiver), 2 x IR cable, 2 x power supply, quick manual

Art. No.	Description
HDBT-100V2	HDBaseT Extender up to 100m, over RJ45., 4k





HDMI Extender Set, 4K 60Hz, 1x RJ45 up to 50m

HDMI 4K Extender Set, extends your HDMI signal with at least 1x Cat.6- cable up to 50 m with a resolution of 4K 60Hz

With local HDMI out on transmitter unit Supports HDCP 2.2, Dolby True HD, DTS HD, IR Passback, EDID Passback

Art. No.	Description
IDATA-EXT-E70-4K2	HDMI Extender 4K UHD Cat. 6/6A/7, up to 60m





HDMI HDbitT 4K Extender Set over IP up to 120m

Extends the HDMI-Signal over CAT5 / 5e / 6 Cable up to 120m

Max. resolution 4K 30Hz

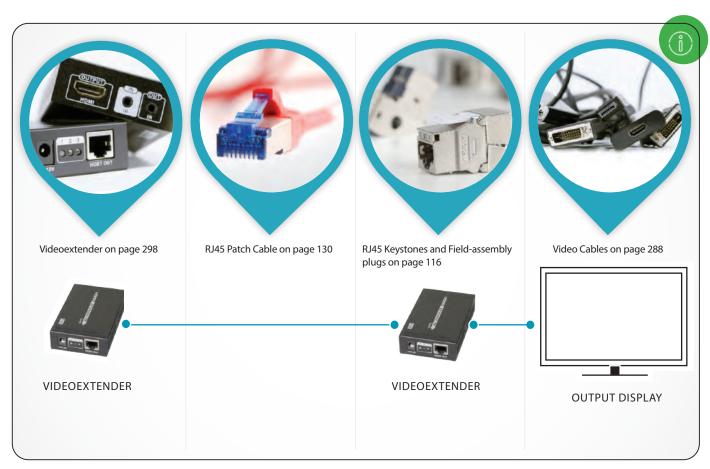
Signal can be extend and splittet with a network switch or router

Compatible with HDMI 1.4 and HDCP 1.4

Art. No.	Description
IDATA-EXTIP-3834KV4	HDbitT 4K HDMI Extender Transmitter/
	Receiver over IP with IR, 120m

Accessory

Art. No.	Description	
K5537GR.x	RJ45 Patch cable S/FTP, Cat.6A, PVC, UL, Longlink, grey	
K9201.90	Cat.6A/classEA Installation link, S/FTP, 90m on drum	
88035AV.1	RJ45 Connector STP, Cat.6A, Field-Plug	
E-20070	INFRALAN® RJ45 Keystone STP, Cat.6A, 500MHz, Komponenten zertifiziert	
K5525GR x	RI45 Patchkabel S/FTP Cat 6A Cat 7 Rohkabel grau	







HDMI Extender over Cat.6/6a/7, max. 30m

HDMI Extender Set for up to 30m over 2x Cat.5e/6 cable

Extender with assembled cables Max. resolution up to 1080p (1920 x 1080)

Art. No.	Description
IDATA-EXT-E30D	HDMI Extender over CAT6/6a/7 with cable 30m







HDMI Extender by Cat.6/6A/7, max. 40m

Extends the HDMI signal by using 1x Cat.5e/-6 cable up to a length of 40 m Max. resolution up to 1080p (1920 x 1080) Supports HDCP1.2, Dolby True HD, DTS HD Master Audio Plug & Play

Art. No.	Description
IDATA-EXT-E70S	HDMI Extender by Cat.6/6A/7, max. 40m







HDMI Extender over CAT6/6a/7, up to 60m

HDMI Extender Set for up to 60m over 1x Cat.5e/6/6a network cable Max. resolution up to 1080p (1920 x 1080)

Art. No.	Description
IDATA-FXT-F70	HDMI Extender over CAT6/6a/7 up to 60m





HDMI Extender with IR over RJ45, up to 60m

Extends the HDMI and infrared signal by using 1x Cat.5e/-6 patchcable up to a length of 60 m Max. resolution up to 1080p (1920 x 1080) Supports HDCP1.3, Dolby True HD, DTS HD Master Audio

Plug & Play

Art. No.	Description
IDATA-EXT-E70I	HDMI Extender with IR over RJ45, up to 60m





HDMI Extender Cat.5e/6 120m

HDMI Extender Set for up to 120m over 1 \times Cat. 6/6A network cable Max. resolution up to 1080p (1920 x 1080)

Art. No.	Description
IDATA-EXT-E71	HDMI Extender Cat.5e/6 120m



Art. No.



VGA- and Audio-Extender Set over Cat. 5/5e/6 (300m)

VGA Extender over Cat.5e/6 cable up to 300m Transmission distance: 1920x1200 (10m); 1600x1200 (100m); 1280x1024 (200m) VGA tuning via manual switch

Included in delivery: VGA Extender Set, power supply, user manual

Description

Accessory		
	Art. No.	Description
	IDATA-EX-DL45	Receiver for VGA Extender DL344/DL252 over

IDATA-EX-DL344 VGA- and Audio-Extender Set over Cat.5e/6 (300m)





VGA Extender/Audio-/Video-Splitter Cat. 5e/6 - Transm. 4 x RJ45, 300m

VGA Extender Set with 4 port splitter over Cat.5e/6 cable up to 300m Transmission distance: 1920x1200 (10m); 1600x1200 (100m); 1280x1024 (200m) VGA tuning via manual switch

Included in delivery: VGA Extender Set, power

supply, user manual		manual	
	Art. No.	Description	
	IDATA-EX-DL252	VGA Extender/Audio-/Video-Splitter Cat. 5e/6 - Transm. 4xRJ45, 300m	
	Accessory		
	Art. No.	Description	
	IDATA-EX-DL45	Receiver for VGA Extender DL344/DL252 over	





Video/VGA Extender-Set up to 150m

VGA Extender over Cat.5e/6 cable up to 150m Transmission distance: 1920x1200 (30m); 1600x1200 (100m); 1280x1024 (150m) Simultaneous operation of local and remote monitor

VGA tuning via 16 x coding switch

Included in delivery: 1 x cable set VGA 1.8 m, 2 x power supply

Art. No.	Description
VE-150L/R	Video/VGA Extender-Set Up to 150m

Cat.5e/6 (300m)







HDMI Switch 4X1 Quad Multi-Viewer

HDMI 4x1 switch for 4 HDMI sources, scalable, dimensionable and for output on a single Full HD display for multi viewing

Seamless switching

Supports switching over buttons, IR control and RS232 control

Compatible to HDMI 1.3a and HDCP 1.2

Included in delivery: HDMI 4x1 multi-viewer with seamless switch, power supply 5V / 2A, user manual, remote control

Art. No.	Description
IDATA-HDMI-41MV	HDMI Switch 4X1 Quad Multi-Viewer





HDMI Matrix 4 IN - 2 OUT, 4K, UHD, 3D

Matrix switch for up to 4x HDMI sources and 2x HDMI displays

Possibility of switching between all inputs and outputs

Max. resolution 4K 30Hz

Enables easy switching between the sources via the remote control or the buttons on the device HDCP-compliant

Included in delivery: Matrix IDATA-HDMI-MX42, remote control (battery included), power supply 5V / 3A , Audio R / L + SPDIF audio cable, screws for wall mounting, extender IR receiver, manual

Art. No.	Description
IDATA-HDMI-MX42	HDMI Matrix 4 IN - 2 OUT 4K, UHD, 3D





HDMI Matrix 6x2, 4K, UHD, 3D

Matrix switch for up to 6x HDMI sources and 2x HDMI displays

Possibility of switching between all inputs and outputs

Max. resolution 4K 30Hz

Enables easy switching between the sources via the remote control or the buttons on the device HDCP-compliant

Included in delivery: 1x HDMI 6x2 Matrix Switch, Power Supply 5V / 2A, remote control, manual

Art. No.	Description
IDATA-HDMI-H62	Switch Matrix HDMI 6x2 4K UHD 3D







HDMI Switch 4K, UHD, 3D

HDMI 3/5-Port Switch Max. resolution: 4K 30Hz Supports HDCP, HD Audio, Dolby True HD Incl. power supply

Art. No.	Description
IDATA-HDMI-4K31	HDMI Switch 4K, UHD, 3D, 3 way
IDATA-HDMI-4K51	HDMI Switch 4K, UHD, 3D, 5 way





HDMI Bi-Directional Switch 2Port, 4K 60Hz

Switch and Splitter in one device Switch the HDMI signal between 2 displays, or show the same signal on 2 displays. Max. resolution 4K60Hz

Art. No.	Description
IDATA-HDMI-22BI2	HDMI Bi-Directional Switch 2-Port 4K 60Hz







HDMI Switch 4K 60Hz HDR

HDMI 3/5-Port Switch Max. resolution: 4K 60Hz Supports HDR and YUV 4: 4: 4, HDCP2.2, HD Audio, Dolby True HD Incl. power supply

Art. No.	Description
IDATA-HDMI2-4K3160	HDMI Switch 4K60Hz HDR 3-Port
IDATA-HDMI2-4K5160	HDMI Switch 4K60Hz HDR 5-Port



HDMI Splitter 4K 60Hz, UHD, 3D

HDMI 2/4/8-Port Splitter Max. resolution: 4K 60Hz Supports HDCP2.2, HD (HBR) Audio, Dolby True HD etc. Incl. power supply

Art. No.	Description
IDATA-HDMI2-4K2	HDMI Splitter 4K 4 Port, 4K2K 60Hz
IDATA-HDMI2-4K4	HDMI Splitter 4K 4 Port, 4K2K 60Hz
IDATA-HDMI2-4K8	HDMI Splitter 4K 8 Port, 4K2K 60Hz

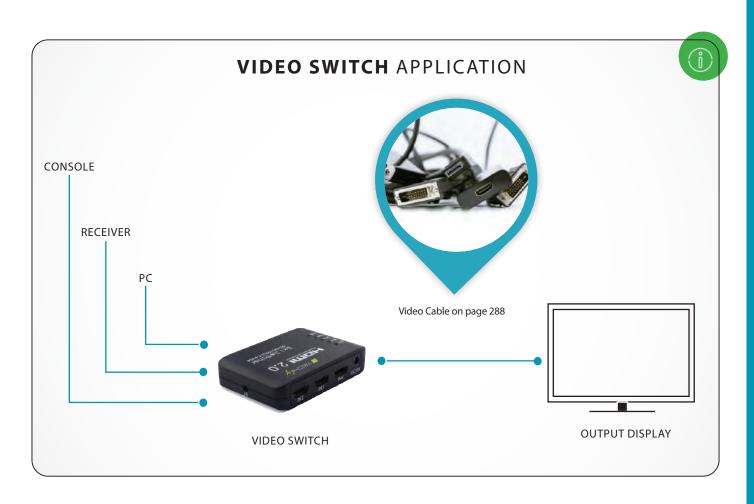


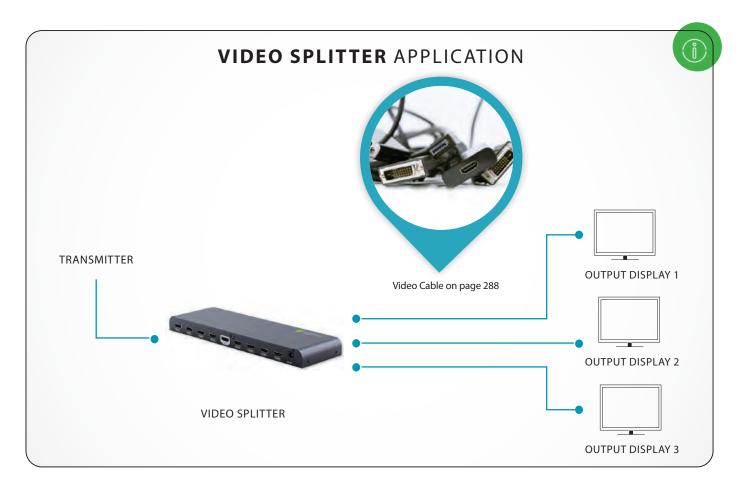


HDMI Splitter 4K60Hz, HDR

HDMI 2/4/8-Port Splitter Max. resolution: 4K 60Hz Supports HDCP2.2, HDR, HD (HBR) Audio, Dolby True HD etc. Incl. power supply

Art. No.	Description
IDATA-HDMI2-4K2HDR	HDMI Splitter 4K 4 Port, HDR, 4K2K 60Hz
IDATA-HDMI2-4K4HDR	HDMI Splitter 4K 4 Port, HDR, 4K2K 60Hz
IDATA-HDMI2-4K8HDR	HDMI Splitter 4K 8 Port, HDR, 4K2K 60Hz







SERIAL & PARALLEI CABLE & ADAPTER

D-Sub Cable	P. 303
Serial Adapter	P. 304
D-Sub Plugs & Jacks	P. 304
D-Sub Cover	P. 305
Ribbon Cables & Accessories	P. 306
Hook & Loop Cable Tie	P. 308
Coaxial Cable	P. 310
BNC Plug, Jack and Cable	P. 311

// YOU MIGHT ALSO BE INTERESTED IN:

KVM P. 296

D-SUB CABLE | SERIAL & PARALLEL CABLE & ADAPTER



Data Cable DSub 9pol., Plug - Plug

Pinning: 1:1. With long thumb screws. Shielded. Moulded.

Type of connector connection 1:D-Sub 9 Plug Type of connector connection 2:D-Sub 9 Plug

Stock on lengths: 2,0 - 3,0 - 5,0 - 10 m

Art.-No.

EK129.x	Data Cable DSub 9pol., Plug - Plug
	//
	- A

Description



Laplink Serial Cable

Pinning: 1-4, 2-3, 3-2, 4-1, 5-5, 7-8, 8-7, 9-9, S-S. Shielded. Mounted.

Type of connector connection 1:D-Sub 9 Jack Type of connector connection 2:D-Sub 9 Jack

Stock on lengths: 1.8 - 3.0 m

EK143.x	Laplink Cable Serial 3.0m	
	//	

Description



Data Cable DSub 15 pol., X.21, Plug - Plug

Pinning: 1:1. With long thumb screws. Shielded. Moulded

Type of connector connection 1:D-Sub 15 Plug Type of connector connection 2:D-Sub 15 Plug

Stock on lengths: 2,0 - 3,0 - 5,0 - 10 m

ArtNo.	Description
K5139.x	Data Cable DSub 15 pol., X.21, Plug - Plug



Serial Cable for Laser Printer

Pinning: 1-4, 2-2, 3-3, 4-5, 4-6, 5-7, 6-20, 8-20. Shielded type. Mounted.

Type of connector connection 1:D-Sub 25 Plug Type of connector connection 2:D-Sub 9 Jack

Stock on lengths: 3.0 - 5.0 m

ArtNo.	Description
FK150 x	Serial Cable for Laser Printer 3 0m



Data Cable DSub 9pol., Plug - Jack

Pinning: 1:1. With long thumb screws. Shielded.

Type of connector connection 1:D-Sub 9 Plug Type of connector connection 2:D-Sub 9 Jack

Stock on lengths: 1,0 - 2,0 - 3,0 - 5,0 - 10 m

ArtNo.	Description
EK131.x	Data Cable DSub 9pol., Plug - Jack



Zero Modem Cable

Pinning 1-7, 1-8, 2-3, 3-2, 4-6, 5-5, 6-4, 7-1, 8-1, S-S. Shielded type. Mounted.

Type of connector connection 1:D-Sub 9 Jack Type of connector connection 2:D-Sub 9 Jack

Stock on lengths: 2.0 m

ArtNo.	Description
K5166.x	Zero Modem Cable



Data Cable Dsub 25 pol., RS232 V.24, Plug - Plug

Pinning: 1:1. With long thumb screws. Shielded. Moulded.

Type of connector connection 1:D-Sub 25 Plug Type of connector connection 2:D-Sub 25 Plug

Stock on lengths: 1,0 - 2,0 - 3,0 - 5,0 - 10 m

ArtNo.	Description
EK137.x	Data Cable Dsub 25 pol., RS232 V.24, Plug - Plug



Data Cable DSub 37pol., Plug - Jack

Pinning: 1:1. With long thumb screws. Shielded. Moulded.

Type of connector connection 1:D-Sub 37 Plug Type of connector connection 2:D-Sub 37 Jack

Stock on lengths: 2,0 - 3,0 - 5,0 m

ArtNo.	Description
K5186.x	Data Cable DSub 37pol., Plug - Jack



Data Cable DSub 9pol., RS232, Jack - Jack

Pinning: 1:1. With long thumb screws. Shielded. Moulded.

Type of connector connection 1:D-Sub 9 Jack Type of connector connection 2:D-Sub 9 Jack

Stock on lengths: 2,0 - 3,0 - 5,0 m

ArtNo.	Description
EK152.x	Data Cable DSub 9pol., RS232, Jack - Jack



Data Cable DSub 15 pol., X.21, Plug - Jack

Pinning: 1:1. With long thumb screws. Shielded.

Type of connector connection 1:D-Sub 15 Plug Type of connector connection 2: D-Sub 15 Jack

Stock on lengths: 1,0 - 2,0 - 3,0 - 5,0 - 10 m

ArtNo	De:	scription
K5129.	c Dat	ta Cable DSub 15 pol., X.21, Plug - Jack



Datacable DSub 25pol., Plug-Jack RS232 V.24

Pinning: 1:1. With long thumb screws. Shielded. Moulded

Type of connector connection 1:D-Sub 25 Plug Type of connector connection 2:D-Sub 25 Jack

Stock on lengths: 1,0 - 2,0 - 3,0 - 5,0 - 10 m

ArtNo.	Description
EK165.x	Datacable DSub 25pol., Plug-Jack RS232 V.24



RS232 Adapter Cable, 9pol. jack - 25pol. plug

Pinning 1-8, 2-3, 3-2, 4-20, 5-7, 6-6, 7-4, 8-5, 9-22, S-S. Shielded. Mounted.

Type of connector connection 1:D-Sub 9 Jack Type of connector connection 2:D-Sub 25 Plug

Stock on lengths: 0.25 - 2.0 - 3.0 m

ArtNo.	Description
EK125.x	RS232 Adapter Cable, 9pol. jack - 25pol. plug



Mouse/-Keyboard Cable, PS/2

Pinning: 1:1. Shielded. Moulded. Stock on lengths: 2,0 - 3,0 - 5,0 - 10 m

ArtNo.	Description
EK318.x	PS2 Connection Cable, 2x PS/2, M-M, beige
EK323.x	Mouse/-Keyboard Extension Cable, 2x PS/2, M-F, beige



IBM-PS/2 Mouse/Keyboard Adapter

Shielded, Moulded

ArtNo.	Description
EK560.030V2	IBM-PS/2 Mouse/Keyboard Adapter



USB-A-Jack/Mini-DIN6 Plug

Adapter for USB-A Jack to PS2 (Mini-Din6) Plug

ArtNo.	Description
EB439	Adapter, USB-A to Mini Din 6, F-M



Adapter DSub 9pol. Jack - DSub 25pol. Plug

Interface adapter 9pole to 25pole. Furthermore the adapter can also be used to connect two cable.

ArtNo.	Description
EB914	Adapter, DSub 9 to DSub 25, F-M, beige
EB914F	Adapter, DSub 9 to DSub 25, M-F, beige



Mini Gender Changer DSub 9.pol Plug-Plug

For adapting of Dsub connections.

ArtNo.	Тур	
EB410	D-Sub 9	plug-plug
EB410MF	D-Sub 9	plug-jack
EB411	D-Sub 9	jack-jack
EB412	D-Sub 15	plug-plug
EB413	D-Sub 15	jack-jack
EB414	D-Sub 25	plug-plug
EB414MF	D-Sub 25	plug-Jack
EB415	D-Sub 25	Jack-Jack
EB418	HD-D-Sub 15	plug-plug
EB419	HD-D-Sub 15	plug-Jack
EB420	HD-D-Sub 15	Jack-Jack



DSub Solder Plugs / Jacks

Tin-plated housing Quality level III >= 50 mating cycles

DSub Solder Plugs

ArtNo.	Туре	Pins	PU
28653.1	EDS 09 LL /Z	9	50
28656.1	EDS 15 LL /Z	15	50
28661.1	EDS 25 LL /Z	25	50
28664.1	EDS 37 LL /Z	37	40
28667.1	EDS 50 LL /Z	50	40

DSub Solder Jacks

ArtNo.	Туре	Pins	PU
28603.1	EDF 09 LL /Z	9	50
28606.1	EDF 15 LL /Z	15	50
28611.1	EDF 25 LL /Z	25	50
28614.1	EDF 37 LL /Z	37	40
28617.1	EDF 50 LL /Z	50	40



HD-DSub Solder Plugs / Jacks

Tin-plated housing
Quality level III >= 50 mating cycles

HD-DSub Solder Plugs

ArtNo.	Type	Pins	PU
34504.1	E-HDS 15 LL/Z	15	50
34509.1	E-HDS 26 LL/Z	26	50
34505.1	E-HDS 44 LL/Z	44	50
34506.1	E-HDS 62 LL/Z	62	40

HD-DSub Solder Jacks

ArtNo.	Туре	Pins	PU
34501.1	E-HDF 15 LL/Z	15	50
34510.1	E-HDF 26 LL/Z	26	50
34503.1	E-HDF 62 LL/Z	62	40



DSub Plugs / Jacks 90° angled

Quality level III, UNC 4-40 bolts PushFit snap-in fastening element

DSub plugs 9.4 mm, 90° angled, EURO

ArtNo.	Туре	Pins	PU
29259.1	E-DS 09A KG-T1	9	100
34706.1	E-DS 15A/KG-T1	15	70

DSub jacks 9.4 mm, 90° angled, EURO

ArtNo.	Туре	Pins	PU
34701.1	EDF 09 A/KG-T1	9	100
34702.1	EDF 15 A/KG-T1	15	70
34703.1	EDF 25 A/KG-T1	25	50

DSub jacks 7.2 mm, 90° angled, USA

ArtNo.	Туре	Pins	PU
29226.2	EDF 09A-KGT2	9	100



DSub plugs /Jacks for print mounting

Punched contacts
Quality level III >= 50 mating cycles

DSub plugs for print mounting

ArtNo.	Туре	Pins	PU
28753.1	EDS 09 PP	9	50
28756.1	EDS 15 PP	15	50
28759.1	EDS 25 PP	25	50
28762.1	EDS 37 PP	37	40

DSub jacks for print mounting

ArtNo.	Туре	Pins	PU
28703.1	EDF 09 PP	9	50
28706.1	EDF 15 PP	15	50
28709.1	EDF 25 PP	25	50
28712.1	EDF 37 PP	37	40



DSub Crimp Housing for plugs

Tin-plated housing Quality level III >= 50 mating cycles

DSub Crimp Housing for plugs

ArtNo.	Туре	Pins	PU
34606.1	E-DSCR/09	9	50
34607.1	E-DSCR/15	15	50
34608.1	E-DSCR/25	25	50
34609.1	E-DSCR/37	37	40
34610.1	E-DSCR/50	50	40

DSub Crimp Housing for jacks

ArtNo.	Туре	Pins	PU
34601.1	E-DFCR/09	9	50
34602.1	E-DFCR/15	15	50
34603.1	E-DFCR/25	25	50
34604.1	E-DFCR/37	37	40
34605.1	E-DFCR/50	50	40



DSub plugs / jacks, IDC contacts, flat, UNC thread, for Flat Cable

Quality level III >= 50 mating cycles UNC thread

DSub connector, insulation displacement connector, flat, with UNC thread

ArtNo.	Туре	Pins	PU
29065.1	EDSF 09 LPIII/Z UNC	9	90
29066.1	EDSF 15 LPIII/Z UNC	15	50
29067.1	EDSF 25 LPIII/Z UNC	25	50

DSub jacks, IDC contacts, flat, UNC thread

ArtNo.	Туре	Pins	PU
29015.1	EDFF 09 LPIII/Z UNC	9	90
29016.1	EDFF 15 LPIII/Z UNC	15	70
29017.1	EDFF 25 LPIII/Z UNC	25	40
29018.1	EDFF 37 LPIII/Z UNC	37	30



DSub Plugs /Jacks, IDC Contacts, flat version, for Flat Cable

Quality level III >= 50 mating cycles

DSub connector, IDC contacts, flat version

ArtNo.	Туре	Pins	PU
29060.1	EDSF 09 LPIII/Z	9	50
29061.1	EDSF 15 LPIII/Z	15	50
29062.1	EDSF 25 LPIII/Z	25	50
29063.1	EDSF 37 LPIII/Z	37	40

DSub jacks, IDC contacts, flat version

ArtNo.	Туре	Pins	PU
29010.1	EDFF 09 LPIII/Z	9	90
29011.1	EDFF 15 LPIII/Z	15	50
29012.1	EDFF 25 LPIII/Z	25	50
29013.1	EDFF 37 LPIII/Z	37	40



DSub Tools

ArtNo.	Description
39913.1	DSub Crimping tool, for AWG18-22 and AWG24-30
39914.1	D-SUB Releasing tool

Crimp Contacts

ArtNo.	Description
34612.1	Crimp contacts E-CRIF/28/100/B100-Bag
34616.1	Crimp contacts E-CRIF/28/0 10.000-drum





UNC 4-40 Bolt and Nut-Sets

ESV - U/K set of nuts with UNC 4-40 thread

ArtNo.	Description	PU
29311.1-100	UNC4-40 Bolt Set with nut, nickel plated	1
29313.1	UNC4-40 Nut-Set ESV-U/K (set=2)	2



Plastic Cover E-DH, 180° Cable Outlet

Plastic housing, incl. thumb screws With snap fastener

ArtNo.	Туре	Material	Colour	PU
29417.1	E-DH 09	plastic	metalized/silver	50
29522.1	E-DH 15	plastic	metalized/silver	50
29414.1	E-DH 25	plastic	metalized/silver	50
29416.1	E-DH 09	plastic	grey	50
29521.1	E-DH 15	plastic	grey	50
29415.1	E-DH 09	plastic	black	50
29520.1	E-DH 15	plastic	black	50
29412.1	E-DH 25	plastic	black	50



Plastic Cover Flip-Top, black, 180° Cable Outlet

Individually packed with complete accessories With long thumb screws

ArtNo.	Туре	Material	Colour	PU
29475.1	E-FT 09/SCH	plastic	black	50
29477.1	E-FT 15/SCH	plastic	black	50
29484.1	E-FT 25/SCH	plastic	black	50



Full Metal Cover E-DTZK, 180° Cable Outlet

With long thumb screws Incl. boots for cable diameters 4 - 6 mm, 6 - 8 mm, 8 - 10 mm

ArtNo.	Туре	Material	Colour	PU
29446.1	E-DTZK 9-K	zinc die-cast	silver	100
29447.1	E-DTZK 15-K	zinc die-cast	silver	100
29448.1	E-DTZK 25-K	zinc die-cast	silver	100
29449.1	E-DTZK 37-K	zinc die-cast	silver	100



Full Metal Cover E-MHDM, 180° Cable Outlet

Full metal housing 180° cable outlet, Thumb screws UNC 4-40, for cable diameter up to 13.0 mm, Attenuation: > 40 dB between 30 MHz and 1 GHz Incl. HF shielded boots for cable diameters 4 - 6 mm, 6 - 8 mm, 8 - 10 mm

ArtNo.	Туре	Material	Colour	PU
29470.1	E-MHDM 09-K	zinc die-cast	silver	50
29471.1	E-MHDM 15-K	zinc die-cast	silver	50
29472.1	E-MHDM 25-K	zinc die-cast	silver	50
29473.1	E-MHDM 37-K	zinc die-cast	silver	20

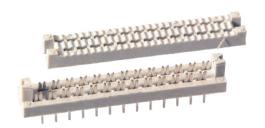


Interface Cover, Empty

- Used for making own adapters
- Plastic, metallized

ArtNo.	Туре	Material	Colour	PU
EB0909	DSub 9pol./DSub 9pol.	plastic	grey	1
EB0909M	DSub 9pol./DSub 9pol.	metalized plastic	metalized/silver	1
EB0925	DSub 9pol./DSub 25pol.	plastic	grey	1
EB1515M	DSub 9pol./DSub 25pol.	metalized plastic	metalized/silver	1
EB2525	DSub 25pol./DSub 25pol.	plastic	grey	1
EB2525M	Dsub 25pol./Dsub 25pol.	metalized plastic	metalized/silver	1





IDC Plug Connectors, pitch 2.54

ArtNo.	Туре	PU
20410.1	E-WH 10pol.	270
20414.1	E-WH 14pol.	250
20416.1	E-WH 16pol.	230
20420.1	E-WH 20pol.	180
20426.1	E-WH 26pol.	140
20434.1	E-WH 34pol.	130
20440.1	E-WH 40pol.	120

IDC Circuit Board Connectors, pitch 2.54

ArtNo.	Туре	PU
22010.1	E-WLP 10pol.	900
22014.1	E-WLP 14pol.	600
22016.1	E-WLP 16pol.	600
22020.1	E-WLP 20pol.	420
22026.1	E-WLP 26pol.	360
22034.1	E-WLP 34pol.	300
22040.1	E-WLP 40pol.	300



IDC Connectors RM2.54

With strain relief

ArtNo.	Туре	PU
20006.3	E-WP 06pol.	264
20008.3	E-WP 08pol.	216
20010.3	E-WP 10pol.	192
20014.3	E-WP 14pol.	144
20016.3	E-WP 16pol.	132
20020.3	E-WP 20pol.	108
20026.3	E-WP 26pol.	84
20034.3	E-WP 34pol.	60
20040.3	E-WP 40pol.	60
20050.3	E-WP 50pol.	48
20064.3	E-WP 64pol.	36



AWG28/7

Grey with identifier core (red) 30.5 m rolls

Individual wires, tin-plated

ArtNo.	Number of conductor
22310B.30R	10
22314B.30R	14
22316B.30R	16
22320B.30R	20
22326B.30R	26
22334B.30R	34
22340B.30R	40
22350B.30R	50



IDC Connectors, pitch 2.00

IDC Connector, pitch 2.00. For flat cable 92944.30R

ArtNo.	Description	PU
30044.1	IDC Connector, pitch 2.00 E-WP 44-pole	60



Flat Cables, pitch 1.00

AWG28/7

Grey with identifier core (red) 30.5 m rolls

Individual wires, tin-plated

ArtNo.	Number of conductor
92944.30R	44







Ring Core Ferrite, square

For round cable and retrofitting With plastic housing for fold-up

ArtNo.	max. Cable diameter
71503.1	6.5 mm
71506.1	10.0 mm
71508.1	13.0 mm

Ring Core Ferrite, round

For round cable and retrofitting With plastic housing for fold-up

ArtNo.	max. Cable diameter
71501.1	3.5 mm
71502.1	5.0 mm
71503.2	7.0 mm
71504.1	7.5 mm
71505.1	9.5 mm
71506.2	10.0 mm

Flat Core Ferrite

For ribbon cable

ArtNo.	Witdh	Depth	Height
71512.1	18.9 mm	12 mm	6.5 mm
71516.1	33.5 mm	12 mm	6.5 mm
71510.1	40 mm	12 mm	6.5 mm



Boots, up to 8.5 mm

Grommets for LIYCY control cable

ArtNo.	Cable diameter	Colour
29509.1	6.0 mm	black
29511.1	6.0 mm	grey
29508.1	8.5 mm	black
29510.1	8.5 mm	grey



Centronics Plugs 90°

Centronics connector and hood, full metal. Manual solder type. Matching cable 99500.1.

ArtNo.	Description
34231.1	Centronics Plug 90° E-57/50MO, solder type



Mini-DIN plug, black

Mini-DIN-plug with strain relief for direct assembling. Matching LYCY cable. (90004.1, 90006.1, 90008.1)

ArtNo.	Description
34816.1	Mini-DIN-Plug 8-pole ED-DIO-M/08 with strain r.





Jumper, pitch 2.54

ArtNo.	Тур
33904.1	EKSP/G black closed
33907.1	EKS/G black, open

Bracket

ArtNo.	Description
77507.1	Bracket without mounting hole
77510 2	Bracket 1xDSuh9







Cable Ties

Cable tie 100 x 2.5 mm, 100 pieces

ArtNo.	Length	Width	Colour
81022.100	100 mm	2.5 mm	transparent
81041.100	165 mm	2.6 mm	transparent
81043.100	140 mm	3.5 mm	transparent
81044.100	200 mm	3.6 mm	transparent

Cable Ties with Marking Surface

Marking surface 25 x 8 mm Tensile force: 8 kg, Material: PA 6.6 natural Content: 100 pcs. per bag.

ArtNo.	Length	Width	Colour
81132.100	100 mm	2.5 mm	transparent

Cutting Tool for Cable Ties, for Cable Tie from 2.5mm

Assembly Tool

ArtNo.	Description
39916.1	Cutting Tool for cable ties for 2.5mm and thicker



Hook-and-Loop Cable Tie, black

Perfect bundling for all kindsof cables Toolfree and stressfree for any cable type Recommended especially for fiber optic cables Resolvable without problems at any time With slot

Hook-and-loop cable ties in 10 pieces bag

ArtNo.	Length	Width	Colour
KB12-130B	130 mm	12 mm	Black
KB12-160B	160 mm	12 mm	Black
KB12-230B	230 mm	12 mm	Black



Hook & Loop Tie 25m, black

Robust construction and extra strong adhesion Reusable

Hook and strip material: Polyamide Colour: black

25 m on rolls

ArtNo.	Length	Width	Colour
81150.25	25000 mm	20 mm	Black



Hook and Loop Tie, 20mm, black, 25m roll, ultra-thin

Ultra slim construction Reusable Hook and strip material: Polyamide

Colour: black **25 m on rolls**

ArtNo.	Length	Width	Colour
KB20-2500B	25000 mm	20 mm	Black







HDD Y-Power Cable

Internal power adapter cable for ATA drives. 1 x 5.25" plug to 2 x 5.25" socket.

ArtNo.	Description
EK319	HDD Power Cable, 5,25" to 2x 5,25", M-2x F, 0,2m

SATA Y-Power Cables with Latch

Internal Y-power adapter cable for SATA drives. 1 x 5.25° (4-pole) plug to 2 x 15-pole SATA plug.

ArtNo.	Description
K5345.015	SATA Y-Power Cable, 1x5,25" to 2xSATA150
	(w.clip), M-2x M, 0,15m

SATA Power Cables with Latch

Internal power adapter cable for SATA drives. 1 x 5.25" (4-pole) plug to 1 x 15-pole SATA plug.

ArtNo.	Description
K5385.015	SATA Power Cable, 5,25" to SATA 15 (w. clip),
	M-M, 0,15m



Coaxial Cable Thin Wire RG58 C/U, double shielded

Coaxial Thin Wire RG58 cable for high frequent measured data and signals defined characteristic impedance and tight production tolerances in 50 Ohm.

Shielding: Tinned copper braiding & aluminum foil

Drum sizes in metres: 100.0 - 1000.0

ArtNo.	Inner conductor material	Dielectric	Outer conductor material	Material outer sheath
91258.x	CU, tinned	cellular PE	braiding CU, tinned	PVC grey, Ø0.12



Coaxial Cable RG58 C/U, 50 Ohm

Coaxial cable for high frequent measured data and signals defined characteristic impedance and tight production tolerances in 50 Ohm. Also available as UL type. (91058.xUL)

Drum sizes in metres: 100.0 - 1000.0

ArtNo.	Inner conductor material	Dielectric	Outer conductor material	Material outer sheath
91058.x	CU, tinned	Fully-PE	braiding CU, tinned	PVC black, Ø0.12



Coaxial Cable RG174, 50 Ohm

Flexible Coaxial cable with small diameter for high frequent measured data and signals defined characteristic impedance and tight production tolerances in 50 Ohm.

Drum sizes in metres: 100.0 - 1000.0

ArtNo.	Inner conductor material	Dielectric	Outer conductor material	Material outer sheath
91074.x	CCS	Fully-PE	braiding CU, tinned	PVC black, Ø0.12



Coaxial Cable RG59 B/U, 75 Ohm

Coaxial cable for high frequent measured data and signals defined characteristic impedance and tight production tolerances in 75 Ohm.

Drum sizes in metres: 100.0 - 500.0 - 1000.0

ArtNo.	Inner conductor material	Dielectric	Outer conductor material	Material outer sheath
91059.x	Fe-CU	Fully-PE	braiding CU, tinned	PVC black, Ø0.15



Video Cable RG59, 75 Ohm

Coax Cable RG59, 75 Ohm, PVC Green

Drum sizes in metres: 100.0 - 500.0 - 1000.0

ArtNo.	Inner conductor material	Dielectric	Outer conductor material	Material outer sheath
91259.1	CU, tinned	Fully-PE	braiding CU, tinned	PVC green, Ø0.12



Stripping Tool RG58/59/62

Stripping Tool for stripping of RG58/59/62 coaxial cable

ArtNo.	Description
52536.2	Stripping Tool for BNC RG58/59/62



Crimping Tool RG58/59/62

Crimping tool for RG58/59/62 coaxial connector

ArtNo.	Description
52535.2	RNC Crimping Tool for RNC RG58/59/62



BNC Boots

Strain relief boots for BNC crimp plugs Colours: .1=black .2=red .3=blue .4=green

ArtNo.	Cable diameter	Min. inner diameter	PU
52527.x	BNC connector	5.0 mm	5.0 mm
52529.x	RG59/62	6.5 mm	6.5 mm
52537.x	BNC connector	2.8 mm	2.8 mm

BNC PLUG, JACK AND CABLE | SERIAL & PARALLEL CABLE & ADAPTER



BNC Patch Cable

Pre-assembled RG59 coaxial cable for high frequent measured data and signals $\,$

Stock on lengths: 1,0 - 2,0 - 3,0 m other lengths from own manufacturing

ArtNo.	Description
K8300.xV2	Coax Cable RG58 C/U 50 Ohm 2x Plugs straight
K8360.xV2	Coax Cable RG59 75 Ohm 2x Plugs straight



BNC Adapter

ArtNo.	Туре	PU
52522.1	Adapter, 50 Ohm Jack - Jack	100
52523.1	Adapter, 75 Ohm Jack - Jack	100
52518.1	T-Adapter Jack/Plug/Jack RG 58, 50 Ohm	100
52519.1	T-Adapter Jack/Plug/Jack RG59/62, 75 Ohm	100
52524.1	Terminator, 50 Ohm	100



BNC Crimp Plugs, straight

ArtNo.	Туре	PU
52500.1	RG 58, 50 0hm	50
52500.2	RG 58 PTFE Dielectricum, 50 Ohm	50
52502.1	RG 59/62, 75 0hm	50
52576.1	RG 174, 50 0hm	50
52583.1	RG 179B/U, 75 0hm	100
52497.1	BNC Connector for Video Cable 0.6/2.8, 75 0hm	100



BNC Crimp Plugs, angled, crimp/solder type

The Core will be soldered.

The braiding together with the sleeve crimped.

ArtNo.	Туре	PU
52506.1	RG 58, 50 Ohm	50



BNC Crimp Jacks, straight

ArtNo.	Туре	PU
52509.1	RG 58, 50 0hm	50
52511.1	RG 59/62, 75 0hm	50
52501.1	RG 174, 50 0hm	50
52533.1	RG 179, 75 0hm	50



BNC Receptacle

ArtNo.	Туре	PU
52514.1	RG 58, with out ground isolation, 50 0hm	50
52515.1	RG 59/62, with out ground isolation, 75 0hm	50
52554.1	RG 58, with ground isolation, 50 0hm	50
52581.1	RG 59/62, with ground isolation, 75 0hm	50



BNC Receptacle Type

ArtNo.	Туре	PU
52574.1	BNC Panel Jack Solder type 50 Ohm, w/o ground isolation	100
52594.1	BNC Panel jack Print mounting 50 Ohm, 90°	50



BNC Single-Hole Adapter Jack/Jack

With ground insulation. For panel mounting.

ArtNo.	Туре	PU
52553.1	RG 58, 50 0hm	50
52580.1	RG 59/62, 75 Ohm	50







Managed SwitchesP. 315Unmanaged SwitchesP. 316Fast Ethernet SwitchesP. 317

// YOU MIGHT ALSO BE INTERESTED IN:

Fiber Optic Jumper Cable	P. 79
RJ45 Patch Cable	P. 130
19" Network & Server	P. 184
Optical Transceiver	P. 330









Level 1 Managed Gigabit Ethernet Switches

19" Gigabit Ethernet Switches with Management Functions

Web Smart Switches with Web Management to Control Standard Network Functions

Layer 2 Switches with SNMP, WEB, Telnet and Management

Layer 2 Features: IPv6, Multicast, VLAN, Virtual Stacking, Autonegotiation, Auto MDI/MDIX and more

Layer 3 Lite Switches additionally with IPv4/IPv6 Static Routes, IGMP v1/v2, Proxy Functions Including 19" Angle

SFP AND SFP+
MODULES CAN BE
FOUND ON PAGE 330.
COMPATIBLE WITH ALL
STANDARD
SFP AND SFP+
TRANSCEIVER.

19" Gigabit Ethernet Managed Switches with PoE

Art. No.	Management	10/100/1000 Mbps RJ45 Ports	1G Combo RJ45/SFP Ports	1G SFP Ports	Max. PoE power in W
GEP-2681	L3 Lite	24	2		185
GEP-2682	L3 Lite	24	2		370
GEP-1061	L2	8		2	125
GEP-2651	Web Smart	24	2		185

19" Gigabit Ethernet Managed Switches

Art. No.	Management	10/100/1000 Mbps RJ45 Ports	1G Combo RJ45/SFP Ports	1G SFP Ports	10G SFP+ Ports
GEL-5261	L2	48			
GEL-2861	L2	24			
GTL-2881	L3 Lite	24			2
GTL-2882	L3 Lite		2	22	2
GEL-1061	L2	8		2	
GES-2451	Web Smart	24	4		
GEL-1051	Web Smart	8			



FOS-5126



SFP AND SFP+
MODULES CAN BE
FOUND ON PAGE 330.
COMPATIBLE WITH ALL
STANDARD
SFP AND SFP+
TRANSCEIVER.







CTS L2 Managed Gigabit Ethernet Switches

The FOS series is your ticket to the world of fiber optics. The switches of the FOS series are robust stable access switches with a flexible configuration adapted to their application. Due to the high performance, a good and documented management, the FOS switches are the ideal helpers to network your fiber optic lines.

1G SFP and 10G SFP+ ports for fiber optic connection

Dual speed SFP ports with automatic adjustment to fiber optic speed IP4/IPV6 support

Dual firmware image, never again fear of broken firmware Optimized for IPTV streaming

19" brackets included, 10" brackets also included in FOS-31** Variants

Art. No.	Management	1G Combo RJ45/SFP Ports	1G SFP Ports	10G SFP+ Ports
FOS-3110	L2	2	8	
F0S-3114	L2		14	
F0S-3128	L2	4	24	
F0S-3148	L2	4	44	
F0S-5126	L2	4	20	2









19" Unmanaged Gigabit Ethernet Switch

With Autonegotiation, Auto MDI/MDIX, Diagnostic LEDs
19" Mounting brackets included
Metal housing with fan
(L x W x H): 440 x 180 x 44 mm

Art. No.	Description
GSW-2457	24-Port Gigabit Ethernet Switch
GSW-1657	16-Port Gigabit Ethernet Switch











19" Unmanaged Gigabit Ethernet PoE+ Switch

Up to 30W per Port, IEEE-802.3af / at PoE compliance and Automatic PoE detection 19" Mounting brackets included

Metal	housing
-------	---------

	•
Art. No.	Description
GEP-1621	16-Port Gigabit Ethernet PoE+ Switch (240W)
GEP-1622	16-Port Ethernet Gigabit PoE+ Switch (480W)
GEP-1021	10-Port-Gigabit Ethernet-PoE+ Switch, 2x GE SFP, (250W)
GEP-0821	8-Port Gigabit Ethernet PoE+ Switch (123.2W)
GEP-0822	8-Port Gigabit Ethernet PoE+ Switch (240W)



8-Port Gigabit Ethernet Desktop Switch

Compact design for desktop or wall mounting Autonegotiation, Auto MDI/MDIX Diagnostic LEDs incl. power supply Plastic housing fanless (L x W x H): 75 x 137 x 25 mm

Art. No.	Description
GEU-0822	8-Port Gigabit Ethernet Switch, 8 x 10/100/1000Mbps



Gigabit Ethernet Desktop Switch "Black Edition"

Compact Black Edition design for desktop or wall-mountable housing
Autonegotiation and Auto MDI/MDIX
Diagnostic LEDs
Power supply included
Plastic housing fanless
(L x W x H): 160 x 90 x 29 mm

Art. No.	Description
GSW-0507	5-Port Gigabit Ethernet Desktop Switch, "Black Edition"
GSW-0807	8-Port Gigabit Ethernet Desktop Switch, Black Edition"



5-Port Gigabit Ethernet Desktop Switch, ultrakompact

Ultra compact design
Full-duplex
Autonegotiation and Auto-MDI/MDIX
Incl. Power Supply
Plastic housing fanless
(L x W x H): 89 x 86 x 23 mm

Art. No.	Description
GEU-0522	5-Port Gigabit Ethernet Desktop Switch







5-Port Gigabit Ethernet Desktop Switch incl. 1x GE SFP

Compact Switch with 1G SFP Fiber Port Autonegotiation and Auto MDI/MDIX Diagnostic LEDs Plastic housing fanless (L x W x H): 130 x 77 x 24 mm

Art. No.	Description
GEU-0521	5-Port Gigabit Ethernet Switch, 4x RJ45, 1x GE SFP











5-Port-Gigabit Ethernet PoE+ Desktop Switch

PoE ports according to IEEE-802.3 af/at and PoE Auto-detect

Max. power for PoE: 65W, up to 30W per Port Metal housing (L \times W \times H): 160 \times 122 \times 44 mm

Art. No.	Description
GEP-0522	5-Port-Gigabit Fthernet-PoF-Switch, (65W)









19" Fast Ethernet Switch

Plug & Play
Autonegotiation and Auto MDI/MDIX
Diagnostic LEDs
19" brackets included
Metal housing fanless
(L x W x H): 440 x 180 x 44 mm

Art. No.	Description
FSW-1650	16-Port Fast Ethernet Switch
FSW-2450	24-Port Fast Ethernet Switch





19" 50-Port Fast Ethernet Switch, 2x GE SFP/RJ45

50x Fast Ethernet Ports + 2x Gigabit SFP/RJ45 Combo Slots Full/Half-Duplex Autonegotiation, Auto-MDI/MDIX 19" Mounting brackets included Metal housing 1 fan (L x W x D): 440 x 230 x 44 mm

Art. No.	Description
FGU-5021	50-Port Fast Ethernet Switch + 2 GE SFP/RJ45
	Combo Ports



Desktop Fast Ethernet PoE+ Switch

PoE: IEEE-802.3af / at PoE compliance
PoE+ up to 30W per port with Auto-PoE detection
Features: Autonegotiation, Auto MDI/MDIX
Internal power supply
19" Mounting brackets included
Metal housing
(L x W x H): 280 x 185 x 44 mm

Art. No.	Description		
FEP-0811	8-Port Fast Ethernet PoE+ Switch (120W)		
FEP-0811W250	8-Port Fast Ethernet PoE+ Switch (250W)		







Desktop Fast Ethernet Switch, magnetic

Compact design with magnetic base Autonegotiation and Auto MDI/MDIX Diagnostic LEDs Incl. power supply Plastic housing fanless (L x B x H): 127 x 70 x 28 mm

Art. No.	Description	
FSW-0508TX	5-Port Fast Ethernet Switch, ultracompact	
FSW-0808TX	8-Port Fast Ethernet Switch, ultracompact	



Desktop 5-Port Fast Ethernet Switch, ultracompact

5-Port Fast Ethernet Switch
Plug & Play
Full/Half-Duplex, Autonegotiation and Auto MDI/MDIX
Diagnostic LEDs
Incl. power supply
Plastic housing fanless
(LxBxH): 89 x 86 x 23 mm

Art. No.	Description	
FEU-0512	5-Port Fast Ethernet Switch	







Desktop 4-Port Fast Ethernet Switch with SC Duplex FO Port

4x Fast Ethernet Port 1 SC-Port 100BaseFX fiber multimode up to $2\ km$ via 50μ or 62.5μ fibre Autonegotiation and Auto MDI/MDIX Diagnostic LEDs

Plastic housing fanless (LxBxH): 164 x 100 x 26 mm

Art. No.	Description
FEU-0511	4-Port Fast Ethernet Switch + 1x FO Multimode SC Port

NOT FOUND WHAT YOU ARE LOOKING FOR?

YOU WILL FIND AN EVEN LARGER SELECTION OF SWITCHES IN OUR ONLINE SHOP!

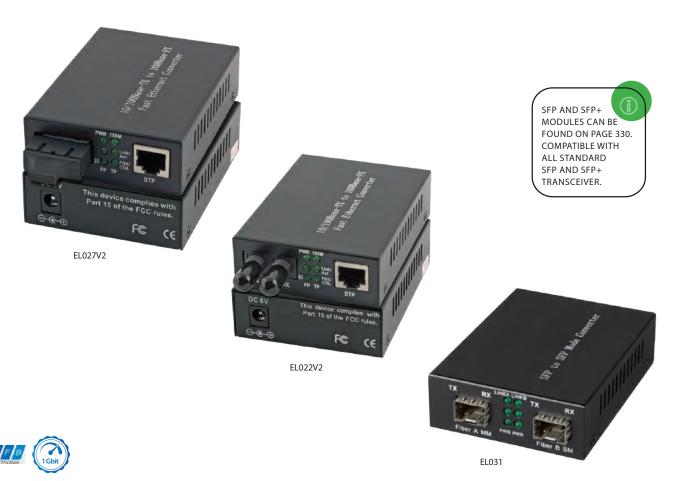




EFB Media Converter P. 319 CTS Media Converter P. 320 Levelone Media Converter P. 321

// YOU MIGHT ALSO BE INTERESTED IN:

Fiber Optic Jumper Cable	P. 076
RJ45 Patch Cable	P. 130
Field Installable RJ45-Plug	P. 158
Optical Transceiver	P. 330



EFB Media Converter

Single use or in Chassis (EL0CH1)
Media converter for RJ45 to FO via MGBIC (EL029)
or mode change from SM to MM, MM to SM via 2 x MGBICs (EL031)
Autonegotiation and Auto MDI/MDI-X
Diagnostic LEDs
External power supply included
Metal housing (L x B x H): 94 x 71 x 26 mm

Fast Ethernet Media Converter

Art. No.	RJ45-Port	FO Port	Mode	Distance
EL022V2	10/100TX	ST 100FX	MM	2000 m
EL023V2	10/100TX	SC 100FX	MM	2000 m
EL025V2	10/100TX	SC 100FX	SM	10000 m

Gigabit Ethernet Media Converter

Art. No.	RJ45-Port	FO Port	Mode	Distance
EL027V2	10/100/1000T	SC 1000SX	MM	550 m
EL028V2	10/100/1000T	SC 1000LX	SM	10000 m
EL029	10/100/1000T	1 x MGBIC 1000Mbit/s	MM or SM	-
EL031	-	2 x MGBIC 1000Mbit/s	MM or SM	-



19" Rack Chassis for Media Converter (Basic)

Up to 14 converter can be inserted or replaced in running operation (hot-swappable)
Supports Ethernet, Fast Ethernet, Gigabit, Singlemode and Multimode converter
Dual power supply for power redundancy
19"/2U housing (L x W x H): 485 x 231 x 90 mm

Art. No.	Description
ELOCH1	19" Rack-mount chassis 2U - 14 slots





SFP AND SFP+
MODULES CAN BE
FOUND ON PAGE 330.
COMPATIBLE WITH
ALL STANDARD
SFP AND SFP+
TRANSCEIVER.

CTS Network Fast Ethernet compact Media Converter

The MCT Converter series has a very compact design, space- and cost-saving solution

For single device use or in MCT-RACK-Chassis series to mix installation with MCT series

Autonegotiation, Auto MDI/MDIX, Link Alarm...

Management variants features: QOS, OAM, VLAN, Link Pass Through eg. With integrated dip-switches for more adjustments With diagnose LEDs

Target Application: Point-to-point fiber connection for long distance External power supply included

Metal housing (D x W x H): 74 x 51 x 20 mm





Fast Ethernet Compact Media Converter

Art. No.	RJ45-Port	FO Port	Mode	Distance
MCT-100BTFT	10/100TX	ST 100FX	MM	2000 m
MCT-100BTFC	10/100TX	SC 100FX	MM	2000 m
MCT-100BTFC-SM30	10/100TX	SC 100FX	SM	30000 m

Gigabit Ethernet Compact Media Converter

Art. No.	RJ45-Port	FO Port	Mode	Distance
MCT-3002BTFC	10/100/1000T	SC 1000SX	MM	550 m
MCT-3002BTFC-SM10	10/100/1000T	SC 1000LX	SM	10000 m
MCT-3002SFP-DR	10/100/1000T	1 x MGBIC 1000Mbit/s	MM or SM	-
MCT-3002W2A-SM10	10/100/1000T	SC 1000LX	SM	10000 m
MCT-3002W2B-SM10	10/100/1000T	SC 1000LX	SM	10000 m

Gigabit Ethernet Managed Compact Media Converter

Art. No.	RJ45-Port	FO Port	Mode	Distance
MCT-3512SFP-DR	10/100/1000T	1 x MGBIC 100/1000Mbit/s	MM or SM	-
MCT-3512BTFC-SM20	10/100/1000T	SC 1000LX	SM	20000 m



CTS 10G Network Media Fiber Converter

Media Converter for 10G Network Connection over Fiber and Copper Supports 10 Gigabit SFP+ to SFP+ fiber optic connection with full duplex conversion

LED Indicators for link and power status

Field of Application:

10G point-to-point fiber optic connection, mode-conversion (MM<->SM), fiber optic distance extending

Art. No.	RJ45-Port	FO Port	Mode	Distance
MCT-5002SFP+	1 x 100M/1G/2.5G/5G/10G	1 x SFP+ 10GBase-R	MM or SM	-
MCT-5002FSMSFP+	-	2 x SFP+ 10GBase-R	MM oder SM	-



MCT-RACK-2







CTS Rack Chassis for Compact Media Converter

MCT Chassis for up to 18 x MCT-converter

Supports 10 Gigabit, Fast Ethernet, Gigabit, Singlemode and Multimode MCT media converters

Installation of managed and unmanaged MCT media converters possible Diagnostic LEDs for "Power" and "Fans"

Easy mounting and fast access to the media converters from the front with thumbscrews

Ideal application for environments with limited space

MCT-RAK-18: Installation for 19" mounting witch the included brackets MCT-Rack-2: Installation for 10" and 19" racks with the included brackets

Art. No.	Description
MCT-RACK-18-2A	1.5U 19" Rack Chassis for MCT Converter, 18 Slots, Unmanaged, incl. 2 power s.
MCT-RACK-18-MGM-2A	1.5U 19" Rack Chassis for MCT Converter, 18 Slots, Managed, incl. 2x power s.
MCT-RACK-2	CTS 10" Rack Chassis for MCT Converter, 2 Slots, Unmanaged, incl 1x power s.



SFP AND SFP+ MODULES CAN BE FOUND ON PAGE 330. COMPATIBLE WITH ALL STANDARD SFP AND SFP+ TRANSCEIVER.







Gigabit Media Converter Switch with 2 x SFP Ports

1 Gigabit RJ45 Port and 2 Gigabit SFP Slots Transmits data of 10/100/1000Base-T-Copper- to Fiber Optic Interfaces IEEE-802.3x Flow-Control protects from packet-loss and allows a reliable data transmission Supports transmission with a low time delay Diagnostic LEDs External power supply included Metal housing fanless (L x W x H): 94 x 71 x 26 mm

Art. No.	RJ45-Port	FO Port	Mode	Distance
GVT-2011	10/100/1000T	2 x SFP 1000Base-X	MM or SM	













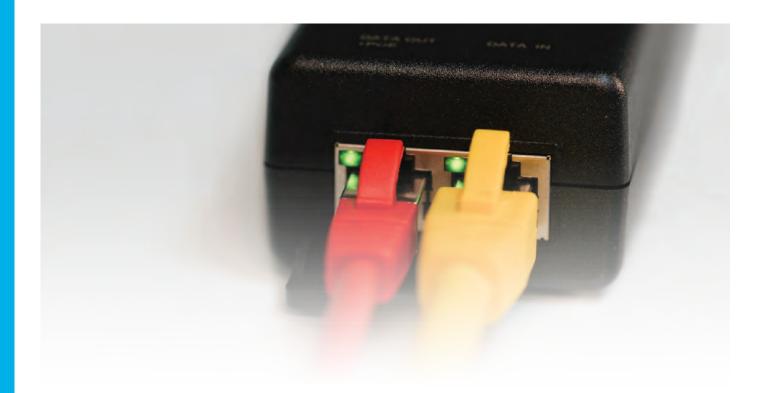
Gigabit Ethernet PoE Media Converter

Power Sourcing Equipment (PSE) Gigabit Media Converter with SFP slot The Media Converter offers PoE+ via the RJ45-port to supply devices (e.g. PoE-cameras, phones, switches) with power IEEE-802.3af / at PoE-PSE SFP slot supports MiniGBIC for Gigabit 1000BaseX

Diagnostic LEDs

Metal housing fanless (W x D x H): 70 x 94 x 26 mm

Art. No.	Description
GVT-2010	Gigabit Ethernet PoE PD Media Converter, 10/100/1000T RJ45 - SFP
GVT-2012	Gigabit Ethernet PoE PSE Media Converter, 10/100/1000T RJ45 - SFP



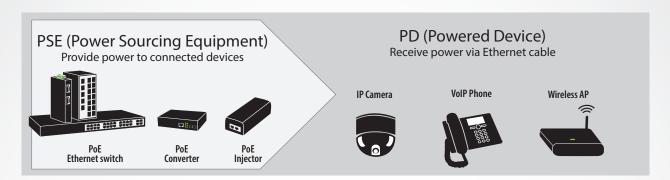
PoE Description	P. 323
PoE-Devices Overview	P. 324
PoE Accessories	P. 325

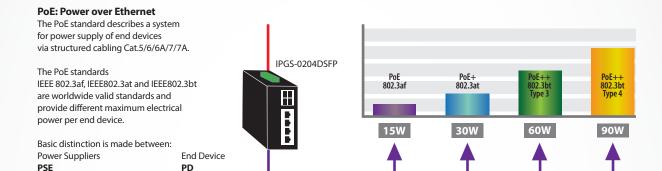
// YOU MIGHT ALSO BE INTERESTED IN:

Fiber Optic Jumper Cable	P. 76
RJ45 Patch Cable	P. 130
Field Installable RJ45-Plug	P. 158
Optical Transceiver	P. 330



MEDIA CONVERTER POE EXPLANATION



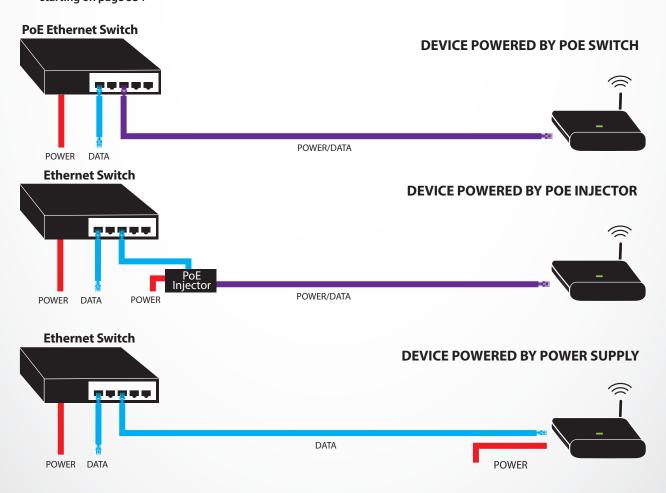


Look up standard terms in the glossary.

Power Sourcing Equipment

Brief and straightforward explanations can be found starting on page 334

Powered Device





OVERVIEW POE DEVICES

ArtNr.	Page	PoE Type	max. PoE Power per Port in W	Max PoE per Device in V
		Managed Giga	bit Ethernet Switches	
GEP-2681	315	PoE PSE	30	185
GEP-2682	315	PoE PSE	30	370
GEP-2651	315	PoE PSE	30	185
GEP-1061	315	PoE PSE	30	125
		Unmanaged Gig	gabit Ethernet Switches	
GEP-1621	316	PoE PSE	30	240
GEP-1622	316	PoE PSE	30	480
GEP-1021	316	PoE PSE	30	250
GEP-0821	316	PoE PSE	30	123,3
GEP-0822	316	PoE PSE	30	240
		Unmanaged F	ast Ethernet Switches	
FEP-0811	317	PoE PSE	30	120
FEP-0811W250	317	PoE PSE	30	250
		Med	ia converter	
GVT-2010	321	PoE PD		
GVT-2012	321	PoE PSE	30	30
		Managed I	ndustrial Switches	
IPES-2208	327	PoE PSE	30	240
IPS-3112-PoE++	327	PoE PSE	60	480
IPS-3110SFP	327	PoE PSE	30	240
		Unmanaged	Industrial Switches	
IPGS-0204DSFP	328	PoE PSE	30	120
		Industrial	Media Converter	
IPGC-0101DSFP-48V	329	PoE PSE	30	30
IPC-3012-PoE++	329	PoE PSE	60	60
IPC-3014-PoE++	329	PoE PSE	60	120
		Po	E Injectors	
Pol-2002	325	PoE PSE	15	15
POA-1000A	325	PoE PSE	30	30
I-SWHUB-1500STY	325	PoE PSE	15	15
I-SWHUB-3000STY	325	PoE PSE	30	30
		Po	E Splitter	
POS-3000	325	PoE	25	25
		PoE Overv	oltage Protection	
ESP-2400	325	PoE	30	720
LPB-101G-P	325	PoE	30	30









Levelone Fast Ethernet 15W PoE Injector

1 Fast Ethernet Port DATA IN and 1 Fast Ethernet Port DATA + PoE OUT up to 15.4 W

IEEE-802.3af PoE compatible
MidSpan devices can, independent from the used switch types, be integrated in every network

Diagnostic LEDs

Plastic housing fanless (L x W x H): 166 x 51.3 x 87.9 mm

Art. No.	Description
P0I-2002	Fast Ethernet PoE Injector 15.4W



Lantech Gigabit 30W PoE+ Injector

1 Gigabit Ethernet Port DATA IN and

1 Gigabit Ethernet Port DATA + PoE+ OUT up to 30 W

IEEE-802.3af / at PoE compatible

MidSpan devices can, independent from the used switch types, be integrated in every network

Diagnostic LEDs

Plastic housing fanless (L x W x H): 166 x 51.3 x 87.9 mm

Art. No.	Description
POA-1000A	Gigabit Ethernet PoE+ Injector up to 30W











Techly PoE Injectors

Supplies power and data over an ethernet cable Compatible to IEEE 802.3af/at devices Plug and Play, no configuration necessary

Art. No.	Description	
I-SWHUB-1500STY	10/100Mbps POE Injector 15W IEEE 802.3af	
I-SWHUB-3000STY	Gigabit High PoE Injector 30W IEEE 802.3at	







Gigabit and Fast Ethernet PoE+ Splitter up to 30W

Automatically detects PoE terminals and supplies inline power Easily install Non-PoE devices where a power outlet is not available Safeguards network device with short circuit protection Adjustable DIP switch for 5V, 9V, or 12V output Intergrates Non-PoE devices with Power Over Ethernet support

Auto-sensing power drawn from 802.3af/at power source equipment(PSE) devices

Supplies power up to 25 W Provides Interchangeable tips Metal housing (L x B x H): 60 x 92 x 27 mm

Art. No.	Description	
POS-3000	Gigabit Ethernet PoE+ Splitter 30W	







24-Port PoE Overvoltage protection, 6KV, 30W

19" overvoltage protection for 24 x RJ45 6KV surge protection level on each port Full overvoltage protection for PoE devices Port isolation design prevents surge spread Simple Plug and Play installation Remote power feeding up to 100m

Art. No.	Description
ESP-2400	24-Port PoE Overvoltage protection, 6KV, 30W,







Conncetion module Cat.6 RJ45/RJ45 with Overvoltage protection

Overvoltage and lightning protection for 1x RJ45 device 6KV overvoltage protection Full overvoltage protection for PoE devices

Art. No.	Description
LPB-101G-P	Overvoltage protection Cat.6 RJ45 / RJ45, with separate ground connection

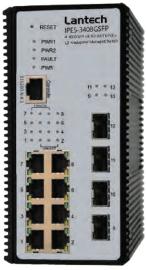
ACTIVE INDUSTRIAL COMPONENTS //



Managed DIN-Rail SwitchesP. 327Unmanaged DIN-Rail SwitchesP. 328DIN-Rail AccessoriesP. 329

// YOU MIGHT ALSO BE INTERESTED IN:

Keystone Holder for DIN-Rail	P. 126
RJ45 Patch Cable	P. 130
IP67/68 Components	P. 166
19" Wall Housings	P. 220



IPES-3408GSFP

SFP AND SFP+
MODULES CAN BE
FOUND ON PAGE 330.
COMPATIBLE WITH
ALL STANDARD
SFP AND SFP+
TRANSCEIVER.



Lantech Managed DIN-Rail Switches

Management: SNMP, WEB, RMON
Auto MDI/MDIX on each RJ45 port
Supports Ethernet Ring Protocol Pro-Ring II
Input voltage range 12 .. 48 V
Redundant power supply input
Alarm contact for emergency events such as .B power failure
Temperature range -20°C .. +60°C *
Sturdy metal housing, EMC-safe, protection class IP30
DIN rail mounting or wall mounting possible
DIN rail power supply not included
* Models with extended temperature range (-40°C .. +75°C) available on

Managed DIN-Rail Switches

Art. No.	Management	RJ45 Ports	1G Combo RJ45/SFP Ports	1G SFP Ports
IES-2208CA	Web	8	2	-
IES-3408GSFP	L2	8	-	4

request

Managed DIN-Rail Switches with PoE

Art. No.	Management	RJ45 Ports	1G Combo RJ45/SFP Ports	1G SFP Ports	Max. PoE power in W
IPES-2208CB	Web	8	2	-	240





CTS Managed DIN-Rail Switches

DIN-Rail power supply not included

8x RJ45 Ports + 2x Combo Ports
Management: SNMP, WEB, CLI
Features: IGMP, QOS, VLAN and much more
Dual Rate SFP Slot for 100-FX and 1000-BaseX
Wide range of operation voltage 9 .. 56 V DC
Auto-MDI/MDI-X function
Dual Rate SFP Slot
Redundant power supply input
Temperature range -40°C .. +75°C
Rugged metal housing, EMV-secure, protection class IP40
DIN-Rail or wall mounting possible

Managed DIN-Rail Switches

Art. No.	10/100/1000 Mbps RJ45 Ports	1G Combo RJ45/SFP Ports
IES-3110SFP	8	2

Managed DIN-Rail Switches with PoE

Art. No.	10/100/1000 Mbps RJ45 Ports	1G Combo RJ45/SFP Ports	100/1000 Mbps SFP Ports
IPS-3112-PoE++	8	-	4
IPS-3110SFP	8	2	-



SFP AND SFP+
MODULES CAN BE
FOUND ON PAGE 330.
COMPATIBLE WITH
ALL STANDARD
SFP AND SFP+
TRANSCEIVER.



Lantech Unmanaged Din-Rail Switches

Auto MDI/MDI-X at each RJ45-port
Wide range of operation voltage 9 .. 56 V DC
Redundant power supply input
Alarm contact for emergency events (e.g. like voltage drop)
Temperature range -20°C .. 60°C *
Rugged metal housing, EMV-secure, protection class IP30
DIN-Rail or wall mounting possible
DIN-Rail power supply not included

Unmanaged DIN-Rail Switches

Art. No.	RJ45 Ports	100FX SC Ports
IES-0005T	5	-
IES-0008T	8	-
IES-0204FT-SC/MM	4	2

Unmanaged DIN-Rail Switches with PoE

Art. No.	10/100/1000 Mbps RJ45 Ports	100/1000 Mbps SFP Ports	Max. PoE power in W
IPGS-0204DSFP	4	2	120





CTS Unmanaged DIN-Rail Switches

Wide range of operation voltage 12 .. 58 V DC
Auto-MDI/MDI-X function
Dual Rate SFP Slot
Redundant power supply input
Temperature range -40°C .. +75°C
Rugged metal housing, EMV-secure, protection class IP30
DIN-Rail or wall mounting possible
DIN-Rail power supply not included

Unmanaged DIN-Rail Switches

Art. No.	10/100/1000 Mbps RJ45 Ports	100/1000 Mbps SFP Ports
IES-3005-F1	4	1
IES-3008	8	-
IES-3008-F2	6	2

TOP SELLER

IAC-3014



IPGC-0101DSFP-48V





Lantech DIN-Rail Media Converter

Wide range of operation voltage 9 .. 56 V DC (12 variant)

44 .. 56 V DC (48 variant)

Auto-MDI/MDI-X function

Dual Speed via DIP Switch

Redundant power supply input

Temperature range -20°C .. +60°C *

Rugged metal housing, EMV-secure, protection class IP30

DIN-Rail or wall mounting possible

DIN-Rail power supply not included*

extended temperature range types (-40°C .. +75°C) available on request

DIN-Rail Media Converter

Art. No.	RJ45-Port	FO Port	Mode	Distance
IGC-0101DSFP	10/100/1000T	1 x MGBIC 1000Mbit/s	MM or SM	-

DIN-Rail Media Converter with PoE

Art. No.	RJ45-Port	FO Port	Mode	Distance
IPGC-0101DSFP-48V	10/100/1000T	1 x MGBIC 1000Mbit/s	MM or SM	-





NDR variants

Mean Well DIN-Rail Power Supply

Power Supply for DIN-Rail Switches

12V Power Supply

Art. No.	Voltage Output	Power	Current
NDR-75-12	12 V	75 W	6.3 A
NDR-120-12	12 V	120 W	10.0 A

24V Power Supply

Art. No.	Voltage Output	Power	Current
HDR-15-24	24 V	15 W	0.63 A
HDR-30-24	24 V	30 W	1.5 A
NDR-75-24	24 V	75 W	3.2 A
HDR-100-24	24 V	100 W	4.2 A
NDR-120-24	24 V	120 W	5.0 A
NDR-240-24	24 V	240 W	10.0 A

48V Power Supply

Art. No.	Voltage Output	Power	Current
NDR-75-48	48 V	75 W	1.6 A
NDR-120-48	48 V	120 W	2.5 A
NDR-240-48	48 V	240 W	5.0 A
NDR-480-48	48 V	480 W	10 0 A



CTS DIN-Rail Media Converter

PoE Injector IEEE802.3at/af with up to 60 W per Port (IPC-Variants) Wide range of operation voltage 48 .. 56 V DC

Auto-MDI/MDI-X function

Dual Rate SFP Slot

Support for 3 different modes: Switch, Fiber Backup and Dual Media Converter mode Redundant power supply input

Temperature range -40°C .. +75°C

Rugged metal housing, EMV-secure, protection class IP30

DIN-Rail or wall mounting possible

Suitable DIN-Rail power supply: DR-240-48

DIN-Rail Media Converter

Art. No.	RJ45-Port	FO Port	Mode	Distance
IAC-3012	100/1000T	1 x MGBIC 1000Mbit/s	MM or SM	-
IAC-3014	2x 10/100/1000T	2 x MGBIC 1000Mbit/s	MM or SM	-

DIN-Rail Media Converter with PoE

Art. No.	RJ45-Port	FO Port	Mode	Distance
IPC-3012-P0E++	100/1000T	1 x MGBIC 1000Mbit/s	MM or SM	-
IPC-3014-P0E++	2x 10/100/1000T	2 x MGBIC 1000Mbit/s	MM or SM	-





19" 4U Universal DIN-Rail Holder

For carrying DIN rail components

Also suitable for wall- and ceiling mounting

DIN rail according to DIN EN 60715 TH35 (35 x 7.5 mm) Width of DIN rail 435 mm

DIN rail depth-adjustable from ca. 55 .. 165 mm (step-less) Rear-sided C-rail for cable fixing, height-adjustable DIN-rail is mountable also horizontally

Art. No.	Description
53719.1V2	19" Universal DIN Rail Holder incl. 4U Bracket Set



Transceiver Modules	P. 331
Transceiver Cable	P. 333

// YOU MIGHT ALSO BE INTERESTED IN:

Fiber Optic Jumper Cable	P. 76
Fiber Optic Cleaning Materials	P. 96
Media Converter	P. 318
Netzwork Switches	P. 314



OPTICAL TRANSCEIVER PORTFOLIO

Optical transceiver modules are the easiest solution to extend the existing network or to connect distant networks with active network technology (like switches or media converters). EFB-Elektronik offers you a wide transceiver portfolio. You choose between products of the market leader Finisar (II-VI), the German technology company CBO or our own brand.

Regardless of which brand you choose, you should always ensure the correct transmission speed and compatibility with the switch manufacturer when purchasing. If you have any questions about this, we will be happy to advise you.



FINISAR (II-VI)

- Largest transceiver manufacturer in the world
- Awarded by Cisco, HP, Extreme Networks, Huawei
- Transceivers from 1Gb/s to 400Gb/s
- Fail-safe due to constant quality control



CBO

- High quality due to components from US manufacturers
- High product lifetime of 10 years on average
- Fast delivery due to large stocks in Germany
- Solutions for all common systems up to 400Gb/s for over 200 manufacturers



EFB-ELEKTRONIK

- Fast delivery due to high stocking with standard solutions for 1Gb/s and 10Gb/s
- Special solutions can be flexibly implemented on request
- 3 years product warranty
- Attractive pricing

100Mbit SFP Transceiver

Finisar

Art. No.	Compatible to	Connector	Speed	Protocol	Wavelength	Link distance	Temperature
FTLF1217P2BTL	Standard	LC duplex	100 Mbit/s	100BaseFX	1310 nm	2 km	-40 − 85 °C
FTLF1323P1BTL	Standard	LC duplex	100 Mbit/s	100BaseFX	1310 nm	40 km	-40 − 85 °C

CB0

Art. No.	Compatible to	Connector	Speed	Protocol	Wavelength	Link distance	Temperature
B005A13602D-B0	Standard	LC duplex	100 Mbit/s	100BaseFX	1310 nm	2 km	0 – 70 °C
B005A13610D-B0	Standard	LC duplex	100 Mbit/s	100BaseLX	1310 nm	10 km	0 – 70 °C

OPTICAL TRANSCEIVER PORTFOLIO



1G/1.25G SFP Transceiver



Finisar

Art. No.	Compatible to	Connector	Speed	Protocol	Wavelength	Link distance	Temperature
FCLF8521P2BTL	Standard	RJ45	1000 Mbit/s	10/100/1000BaseT	-	100 m	-40 − 85 °C
FTLF8519P3BNL	Standard	LC duplex	1000 Mbit/s	1000BaseSX	850 nm	550 m	-20 − 85 °C
FTLF1318P3BTL	Standard	LC duplex	1000 CTS	1000BaseLX	1310 nm	10 km	-40 – 85 °C

CB0

Art. No.	Compatible to	Connector	Speed	Protocol	Wavelength	Link distance	Temperature
B005C13610D-B0	Standard	LC duplex	1000 Mbit/s	1000BaseLX	1310 nm	10 km	0 – 70 °C
B005C856S5D-B0	Standard	LC duplex	1000 Mbit/s	1000BaseSX	850 nm	550 m	0 – 70 °C
B008C28S1-B0	Standard	RJ45	1000 Mbit/s	1000BaseT	-	100 m	0 – 70 °C
10051-B0	Extreme Networks	LC duplex	1000 Mbit/s	1000BaseSX	850 nm	550 m	0 – 70 °C
10052-B0	Extreme Networks	LC duplex	1000 Mbit/s	1000BaseLX	1310 nm	10 km	0 – 70 °C
GLC-LH-SMD-BO	Cisco	LC duplex	1000 Mbit/s	1000BaseLX	1310 nm	10 km	0 – 70 °C
GLC-SX-MMD-BO	Cisco	LC duplex	1000 Mbit/s	1000BaseSX	850 nm	550 m	0 – 70 °C
GLC-T-BO	Cisco	RJ45	1000 Mbit/s	1000BaseT	-	100 m	0 – 70 °C
J4858C-B0	HP Enterprise	LC duplex	1000 Mbit/s	1000BaseSX	850 nm	550 m	0 – 70 °C
J4858D-B0	HP Enterprise	LC duplex	1000 Mbit/s	1000BaseSX	850 nm	550 m	0 – 70 °C
J4859C-B0	HP Enterprise	LC duplex	1000 Mbit/s	1000BaseLX	1310 nm	10 km	0 – 70 °C
J4859D-B0	HP Enterprise	LC duplex	1000 Mbit/s	1000BaseLX	1310 nm	10 km	0 – 70 °C

EFB Elektronik

Art. No.	Compatible to	Connector	Speed	Protocol	Wavelength	Link distance	Temperature
SFP1000LX	Cisco and Standard	LC duplex	1000 Mbit/s	1000BaseLX	1310 nm	20 km	0 – 70 °C
SFP1000SX	Cisco and Standard	LC duplex	1000 Mbit/s	1000BaseSX	850 nm	550 m	0 – 70 °C
SFP1000LX-HPARUBA	HP Enterprise	LC duplex	1000 Mbit/s	1000BaseLX	1310 nm	20 km	0 – 70 °C
SFP1000SX-HPARUBA	HP Enterprise	LC duplex	1000 Mbit/s	1000BaseSX	850 nm	550 m	0 − 70 °C

10G SFP+ Transceiver



Finisar

Art. No.	Compatible to	Connector	Speed	Protocol	Wavelength	Link distance	Temperature
FTLX8574D3BCL	Standard	LC duplex	10 CTS	10GBaseSR	850 nm	82/300 m	-5 − 70 °C
FTLX1471D3BCL	Standard	LC duplex	10 CTS	10GBaseLR	1310 nm	10 km	-5 − 70 °C
FTLF8536P4BCL	Standard	LC duplex	25 CTS	25GBaseSR	850 nm	100 m	0 – 70 °C

CB0

Art. No.	Compatible to	Connector	Speed	Protocol	Wavelength	Link distance	Temperature
B008J78S6-B0	Standard	RJ45	10 CTS	10GBase-T	-	30 m	0 – 70 °C
B035J13610D-B0	Standard	LC duplex	10 CTS	10GBaseLR	1310 nm	10 km	0 – 70 °C
B035J856S3D-B0	Standard	LC duplex	10 CTS	10GBaseSR	850 nm	82/300 m	0 – 70 °C
10301-B0	Extreme Networks	LC duplex	10 CTS	10GBaseSR	850 nm	82/300 m	0 – 70 °C
10302-B0	Extreme Networks	LC duplex	10 CTS	10GBaseLR	1310 nm	10 km	0 – 70 °C
J9150A-B0	HP Enterprise	LC duplex	10 CTS	10GBaseSR	850 nm	82/300 m	0 – 70 °C
J9150D-B0	HP Enterprise	LC duplex	10 CTS	10GBaseSR	850 nm	82/300 m	0 – 70 °C
J9151A-B0	HP Enterprise	LC duplex	10 CTS	10GBaseLR	1310 nm	10 km	0 – 70 °C
J9151D-B0	HP Enterprise	LC duplex	10 CTS	10GBaseLR	1310 nm	10 km	0 – 70 °C
SFP-10G-LR-B0	Cisco	LC duplex	10 CTS	10GBaseLR	1310 nm	10 km	0 – 70 °C
SFP-10G-SR-B0	Cisco	LC duplex	10 CTS	10GBaseSR	850 nm	82/300 m	0 – 70 °C

EFB Elektronik

Art. No.	Compatible to	Connector	Speed	Protocol	Wavelength	Link distance	Temperature
SFP10GSR-300M	Cisco and Standard	LC duplex	10 CTS	1000BaseSX	850 nm	82/300 m	0 – 70 °C
SFP10GLR-10KM	Standard	LC duplex	10 CTS	10GBaseSR	1310 nm	10 km	0 – 70 °C













BlueLAN passive DAC Cable, SFP+ to SFP+

Up to 11 GBd bi-directional data links Compliant with 10GFC Compliant with SFF8431 Compliant with IEEE 802.3ae standard Hot-pluggable SFP+ footprint Enhanced EMI design Single power supply 3.3V Operating temperature range: 0° to 70°

Lengths in metres : 1,0 - 2,0 - 3,0 - 5,0 - 7,0

Art. No.	Description
SC353501J1M30-BL	BlueLAN passive DAC Cable, SFP+ to SFP+, 10GBASE-CR, 1m, AWG30
SC353501J2M30-BL	BlueLAN passive DAC Cable, SFP+ to SFP+, 10GBASE-CR, 2m, AWG30
SC353501J3M30-BL	BlueLAN passive DAC Cable, SFP+ to SFP+, 10GBASE-CR, 3m, AWG30
SC353501J5M24-BL	BlueLAN passive DAC Cable, SFP+ to SFP+, 10GBASE-CR, 5m, AWG24
SC353501J7M24-BL	BlueLAN passive DAC Cable, SFP+ to SFP+, 10GBASE-CR, 7m, AWG24













BlueOptics AOC Fibre Optic Cable, SFP+ to SFP+

For 10G Ethernet Data Center Intra-Rack and Inter-Rack links Hot-pluggable SFP+ cable ends Rigid pull-tab for improved high-density installations

Lengths in metres : 1,0 - 3,0 - 4,0 - 5,0 - 10 - 20

Art. No.	Description
B0353503J1M-B0	BlueOptics, Active Optical Cable, 2 x SFP+, 10GBASE-SR, 1m, MM G50/125μm
B0353503J3M-B0	BlueOptics, Active Optical Cable, 2 x SFP+, 10GBASE-SR, 3m, MM G50/125μm
B0353503J4M-B0	BlueOptics, Active Optical Cable, 2 x SFP+, 10GBASE-SR, 4m, MM G50/125μm
B0353503J5M-B0	BlueOptics, Active Optical Cable, 2 x SFP+, 10GBASE-SR, 5m, MM G50/125μm
B0353503J10M-B0	BlueOptics, Active Optical Cable, 2 x SFP+, 10GBASE-SR, 10m, MM G50/125μm
B0353503J20M-B0	BlueOptics, Active Optical Cable, 2 x SFP+, 10GBASE-SR, 20m, MM G50/125μm

5Play™

Commonly used term coming from Multimedia $HDBaseT^{TM}$ concerning this 5 embedded benefits: Audio/Video – Ethernet – USB – Control – Power.

► Chapter Multimedia

10 Gigabit Ethernet

Data transmission speed of 10 billion bit per second, 10Gbit/s. Cabling concepts can be found in

► Chapter Fiber Optic and Copper Cabling

10 inch

Developed from standardized 19 inch system with nearly halved value of 10 inch = 254 mm, 1 unit= 1,75inch= 44,45mm.

► Chapter Cabinet Systems

1000BaseX

Gigabit Ethernet, regarding SFP ports for Gigabit Transceiver only. (1000Base SX, 1000Base-LX, 1000Base-T).

► Chapter Active Network Components

1000BaseLX

Gigabit Ethernet, regarding Fiber Optic Singlemode, Long Wave 1310nm.

► Chapter Active Network Components

1000BaseSX

Gigabit Ethernet, regarding Fiber Optic Multimode, Short Wave 850nm.

► Chapter Active Network Components

1000BaseT

Gigabit Ethernet, regarding Copper Cabling, Twisted Pair.

► Chapter Active Network Components

100BaseFX

Fast Ethernet 100Mbps based on Fiber Optic.

► Chapter Active Network Components

19 inch

System of structural components, chassis and subracks, originally slopped from USA to Europe and standardized in Germany in the late seventies as DIN 41494. 19"-technology utilize specified measurements, e.g. rack units and horizontal pitch to avoid time-consuming calculations from inch to centimetre. Rack units (U) are used for vertical dimensions, horizontal pitch (HP) are used for horizontal sizes e.g. for 19" subracks. Pitch 0,1 inch = 2,54 mm, 1 HP 0,2 inch = 5,08 mm, 1 U 1,75 inch = 44,45 mm, frontplate 19 inch = 482,60 mm, 1 subrack = 84 HP.

► Chapter Cabinet Systems

21 inch

► Chapter Network and server cabinets

AC/DC

Shortcut for AC – Alternate Current and DC – Direct Current. For any small device running with direct current, mains voltage must be. See also power supply.

► Chapter Active Netork Components

Access Point

Active device to convert wired signals into wireless signals. APs for WLAN IEEE802.11 mostly are responsible for internet connection acting like so called Hot spots.

► Chapter Active Network Components

AOC

Shortcut for Active Optical Cable, constructed of fiber with assembled transceivers on both ends. Compared to solutions based on standard transceivers, it could be a good value, but first of all, extremely energy-efficient. Fiber is a good featured and EMC safe medium, high packing density, biterror free transmission even for long distances and without any electromagnetical interferences. Application areas are digital Audio/Video, like HDMI, High Speed Ethernet - Infiniband - Fiber channel - Storage Area Networks -Local Area Networks - Datacenter.



FCBG110SD1Cxx





APC - Angled Physical Contact

Typical angles of end surface of fiber plugs are 8° to the centerline or 9° for provider (Telecom). As a result of the combination with angled ferrules, extremely high return loss (HRL) values are possible. Reflections are generated at the end surface of fiber plugs. APC do not avoid these reflections, but APC changes the direction of reflections with an angle of 8° to the centerline, out of fibercore of single mode fiber. Hence light transmission gets more secure and stable without reflections to the laser transmitter. APC connectors are indicated with green colour and it is not allowed to mix it up with other coloured connectors.

Schliffart	Rückflussdämpfung	Prinzip
plangeschliffene Endflächen mit Luftspalt (wird nicht mehr verwendet)	14 dB	
konvex geschiffene Endflächen PC (Physical Contact) UPC (Ultra Physical Contact)	> 40 dB > 50 dB	
APE (Angled Physical Contact) Schrägschliff mit konwexen Endflächen	> 60 dB	

Attenuator

Term for a special component to consciously cause attenuation (=energy loss) of the signal amplitude sent. Too high transmission power, e.g. due to missing link loss because of significantly shorter transmission distance than expected, can be adapted to the optimal receiver sensitivity.

► Chapter Fiber optic cabling

Auto MDI/MDIX

Physical connection in Ethernet applications of twisted pairs transmitting pairs and receiving pairs, are detected and assigned automatically, e.g. switch to workstation or switch to media converter.

► Chapter Active Netork Components

Autonegotiation

Connections in Ethernet applications will be negotiated for the best common protocol and transmission speed, e.g. switch to workstation or switch to media converter.

► Chapter Active Network Components



AWG – American Wire Gauge

American Wire Gauge, a table for wire diameters or conductor cross-sections plus the associated Electrical resistance in ohms. The AWG value provides information about the necessary drawing steps of the wire during the manufacturing process. The more often a "drawing course" is passed, the thinner the wire becomes.

Bidirectional

Full Duplex point to point communication channel, to send or to receive signals is simultaneously possible, e.g. the classic phone call.

Bendinsensitive

Special type of glass fiber: a very small bending radius without higher loss is possible. See also ITU-T G.657.A/B

► Chapter Fiber Optic Cabling

BNC

Bayonet Nut Connector, probably most often used description. Connector for coaxial cable, extremely suitable for high frequency. Metal shell and Bayonet fixing are further points for the great popularity since almost 70 years in different application fields like radio technology, video engineering, network systems and measurement technique.



► Chapter Multimedia

Breakout cable

Designation for a divisible cable consisting of at most 2 simplex cables of different thickness in a common outer sheath. Excellent protection of multimode or singlemode fiber and predestined for plug assembly.

► Chapter Fiber Optic Cabling



Buspowered

Term for the simultaneous power supply of active components via the common data/address BUS, formerly also called remote power. The most well-known variant is the USB interface, followed by Power over Ethernet, see also USB or PoE.

Chapter Multimedia and Active Network Components

Cage nut

A square nut usually in M6, which is enclosed in a metal cage. The cage nut is used to mount 19 inch devices in 19 inch housings or racks.

► Chapter Network and Server Cabinets



Category 5/6/6A/7/7A/8

Structured cabling system with different grades (categories) classified by bandwidth in MHz, standardized by ISO/IEC11801 worldwide.

► Chapter Copper Cabling

		CA	TEGOR	Υ		
	100 MHz	250 MHz	500 MHz	600 MHz	1000 MHz	2000 MHz
THE SELEC	TIA/EIA 568-B.2-1 Cat.5e	TIA/EIA 568-B.2-1 Cat.6	TIA/EIA 568-C.2 Cat.6A			TIA/EIA Cat.8
ISO <mark>JTC1</mark> IEC	ISO/IEC11801 Cat.5 Class D	ISO/IEC11801 Cat.6 Class E	ISO/IEC11801 Cat.6 _A Class E _A	ISO/IEC11801 Cat.7 Class F	Cat7a Class F _c	ISO/IEC11801 Cat.8.1/8.2 Class I Class I
CENTREE	EN 50173 Cat.5 Class D	EN 50173 Cat.6 Class E	EN 50173 Cat.6 _A Class E _A	EN 50173 Cat.7 Class F	EN 50173 Cat.7 _A Class F _A	ISO/IEC11801 Cat.8.1/8.2 Class I Class

Certifier

Term for a high-quality and necessary measuring instrument for local area networks. In accordance with the limits of structured cabling according to ISO/IEC11801, the permanent installed links are legally certified after measuring. See also Qualifier.

Closures

Fiber optic closures can be junction or connection closures for outdoor use. They include for example splice cassettes as well as other passive elements for fiber management and protect the optical fibers against external influences. The cable entries of the FO closures can vary in diameter. For this purpose, different types of closures are offered which optionally have several oval entries for uncut pipe loops as well as several exits for distribution feeder (inputs/outputs) and access cables. Depending on the type of cable and installation, suitable sealing sets are also available.

► Chapter Fiber Optic Cabling



Coaxial cable

Term for a two-conductor cable with concentric structure. The inner conductor (core) is fixed at a constant distance from the outer conductor (shielding). This asymmetrical medium is particularly low-loss in high-frequency transmissions. See also BNC.

► Chapter Multimedia



Combo / Shared RJ45/SFP

Combined ports, usable either 1 x SFP or 1 x RJ45 port, virtually share one port.

► Chapter Active Network Components

Connection module

These connection modules are used to reconnect damaged twisted pair cables or to extend an installed permanent link.

► Chapter Copper Cabling



Connection wire

A term from telecommunications. An insulated, solid copper conductor for connecting and wiring LSA connectors. Usual in market are the diameters of 0.5mm and 0.6mm, which are already twisted pairs.

► Chapter Copper Cabling

Consolidation Point

Concentration point. A Consolidation Point is a stationary point in the horizontal structured cabling system. It is often used in open office cabling and is a core element of stationary cable systems that connect to the data outlet at the workplace. A Consolidation Point is an additional connector between the floor distributor (FD) and the data outlet (TCP) and it provides more flexible management of structured cabling. One Consolidation Point can supply multiple data ports.

► Chapter Copper Cabling

Converter

A converter converts for example an analog video signal VGA to a digital video signal HDMI. Another example would be the conversion of a digital USB2.0 protocol into a digital RS232 protocol format.

► Chapter Multimedia

CPR Construction Products Regulation

The Construction Products Regulation is a regulation of the European Union. Its main goal is to create harmonised products and tests standards for construction products across Europe. The regulation is the legal basis for CE-marking construction products and for issuing declarations of performance. Construction products are products that are permanently installed in a building and whose performance has an effect on the performance of the building. Power, control and communication cables in buildings are covered by this regulation. Up until mid-2017, these cables have to be tested according to European test standards in terms of their fire characteristics and assigned to the new Euro classes. The EU Construction Products Regulation defines the conditions for CE-marking and requires manufacturers to make a declaration of performance on the following key product characteristics, derived from the protective objectives: fire safety (flame propagation, heat development, smoke development, acid formation and burning droplets).

▶ www.efb-elektronik.de/en/construction-products-regulation

Crimp tool

Hand crimping tool for the production of crimp connections of various connectors. Crimping allows solder-free electrical connections for stripped solid wire conductors or stranded conductors. The connection area of the crimp contact is deformed and thus establishes a solid, gas-tight connection with the conductor.





CWDM

These so-called "Wave Division Multiplex" techniques are suitable for, not only one wavelength per fiber, but a variety of different wavelengths coupling or decoupling into only one single mode fibercore. For the medium-haul sector, e.g. MAN city networks, a technology called CWDM can be used, Coarse Wave Division Multiplex. Wavelength windows are predefined across the full spectrum. There are 18 wavelengths with a "channel spacing" of 20nm, 1270nm to 1610nm.

► Chapter Fiber Optic Cabling

DAC Direct Attached Copper

DAC is a construct consisting of a twinaxial copper cable with transceiver modules fixed on both sides, thus bridging up to a maximum of 10 m. DAC cable assemblies, in contrast to standard SFP transceivers solutions, are very attractive in terms of price and energy. Applications include High Speed Ethernet - Infiniband - Fiber channel - Storage Area Networks - Local Area Networks - Datacenter.

► Chapter Active Network Components



K5300V2.x

Data outlet

A defined component in the structured outlets according to ISO/IEC11801. Data sockets allow the connection of the terminal devices as a permanent link termination point. The quality is determined by categories 5/6/6A/7/7A/8.

► Chapter Copper Cabling

FT-25130.1V1



Design capable

A property related to switch programs for UAE (Universal connection unit) and TAE (telecommunications connection unit). Design capable data outlets or termination components are compatible with all switch program manufacturers.

► Chapter Copper Cabling

DIN rail

TH35, DIN RAIL. A metal mounting rail with a hat-like profile in the dimensions 35mm x 7.5mm. Used in electrical engineering for mounting various components in switch cabinets, wall housings or distribution boxes.

► Chapter Network and server Cabinets



DIP Switch Dual Inline Package

Another term is DIL Switch Dual In Line. In the same DIP design regarding TTL or CMOS ICs, individual connections can be switched on and off. The component, known as "mousepiano", is used for the manual configuration of digital interfaces.

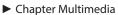
► Chapter Active Network Components



K5440HQSW.x

Displayport & Minidisplayport

Less known than HDMI, but no worse is the DisplayPort standard and its smaller compact brother the Mini DisplayPort. Of the pure performance characteristics, it even has a higher capacity than HDMI. One of the great advantages of the DisplayPort connector is the locking option, which makes it a popular interface where DVI and VGA used to be standard. These features and more make it popular with PC users and in the industrial sector.





D-Sub

denotes a family of connectors, as an abbreviation for D-Subminiature. About 40 years ago, these connectors were kept miniature with the D-frame. D-Sub still exist today in a two-row contact arrangement for the pole numbers: 9 – 15 – 25 – 37- 50. The three-row contact arrangement still exists today in the pole numbers: 15 – 26 – 44 – 62 and is called HD-Sub, HD for High Density. The 9-pin D-Sub9 design correlates with HD-Sub15, the 15-pin D-Sub15 with HD-Sub26, the 25-pin D-Sub25 with HD-Sub44 and the 37-pin D-Sub37 with HD-Sub62.



The connectors were currently widely used in data technology and especially in the era of personal computers that has increased about 35 years ago. VESA chose the HD-Sub15 as a connector for the analog video interface for the first VGA standard. The SCSI world enjoyed the high-pole D-Sub connectors, all serial interfaces such as RS-232 or RS-485 chose D-Sub25, D-Sub15 or to this day the D-Sub9 as connectors for the interfaces. To this day, D-Sub and HD-Sub connectors are significant and popular on the industrial market, as they impress with their robustness, reliability, high contact load and locking. A wide range of housings and accessories completes the D-Sub portfolio.

► Chapter Cables and adapters

Dual-Speed

Fast Ethernet or Gigabit Ethernet transceivers that can be plugged into SFP Fiber Slots. In contrast to a standard SFP slot, two Ethernet speeds are possible here.

► Chapter Active Network Components

Dual-Rail

A dual-rail system that allows LCD consoles to pull out the monitor and keyboard unit separately.

► Chapter Multimedia

Dual-View / Dual-Display

A KVM switch or KVM extender provides the ability to view video output on 2 displays.

► Chapter Multimedia

DVI Dual-Link

With the dual-link interface, the data lines in the cable have been doubled, allowing a maximum resolution of 2560 x1600 pixels. DVI dual-link cables require at least 25 pins (24+1) plugs. DVI sockets are compatible with single-link and dual-link connectors.

► Chapter Multimedia



DVI Single-Link

DVI interface for a maximum resolution of 1920x1200 pixels. DVI single-link cables require at least 19 pins (18+1).

► Chapter Multimedia

DWDM - Dense Wave Division Multiplex, see also CWDM

These so-called "Wave Division Multiplex" techniques are suitable for, not only one wavelength per fiber, but a variety of different wavelengths coupling or decoupling into only one singlemode fibercore. For long-distance traffic, e.g. intercontinental, a technology called DWDM can be used, which of course requires exquisite equipment. With "channel spacing" of 2nm, only one singlemode fibercore is able to transmit hundreds of wavelengths and that means hundreds of services.

► Chapter Fiber Optic Cabling

E2000^R

Patented connector by the company Diamond[®]. With extraordinary mechanical properties. Very popular for passive infrastructure, wide area networks, DWDM, datacenter and FTTx. In the LAN sector for active components practically insignificant.

► Chapter Fiber Optic Cabling

Ethernet

The uniform language, the transmission protocol, in the LAN is called Ethernet, a service for data transmission based on application-neutral structured cabling according to ISO/IEC11801. Developed in the late 1970s, Ethernet was a collective term for a whole series of baseband networks with different topologies. The original Ethernet standards were pure BUS topologies whose BUS segments were connected via repeaters or bridges. The stations were connected to the BUS cable via transceivers. The gross transmission rate was 10Mbps.

Meanwhile the development and standardization process is extremely advanced by the technology of Ethernet switching. As a result, better transfer rates have become possible, from 100Mbps Fast Ethernet to Gigabit, 10Gigabit, 25Gigabit, 40Gigabit, 50Gigabit, 100Gigabit, 200Gigabit up to the gigantic 400Gigabit. There are also

plans to further increase the transmission rates in the future.

Extender

Extenders make it possible to extend the transmission distance for audio/video signals via Cat.5/6/7 network cables or optical fibers. These are 1:1 connections that are established using a transmitter and a receiver.



► Chapter Multimedia

Fast Ethernet

Fast Ethernet 100Mbps for the medium LWL (fiber) and Twisted Pair (copper)

► Chapter Active Network Components

FC connector

Fiber Connector, an extremely high quality connector for optical fibers with 2.5mm ferrule. Particularly stable thanks to metal housing and extremely secure thanks to screw cap. No importance in the LAN area, but very popular in the WAN, e.g. as interface for high-quality measuring instruments.

► Chapter Fiber Optic Cabling

Ferrite core

A special component to keep electromagnetic interference of a current-carrying cable as low as possible, effectively an interference filter. Two-part folding ferrites in different designs qualify as subsequent interference suppression filters for pre-assembled cables. These are available for various cable diameter and frequency ranges.



► Chapter Multimedia

Fiber stripper

Precision tool for stripping jacket, primary coating and secondary coating of fiber cables in wished lengths.

► Chapter Fiber Optic Cabling



Flat Pack

Term for a flat, space-saving packaging of a 19 inch housing for self-assembly with logistical advantages.

► Chapter Network and server Cabinets







Flat Twin

Flat twin cable with common outer sheath. A breakout cable consisting of two simplex cables which are particularly well protected by a common outer sheath. In cross-section, the structure results in an oval, which explains the legendary name "Figure O cable".



► Chapter Fiber Optic Cabling

Flexible cable

EFB term for unassembled raw cable from different manufacturers, consisting of stranded wire AWG26/7 or AWG27/7.

► Chapter Copper Cabling

FRNC

Flame Retardant Non Corrosive, inner cable with flame-retardant and halogen-free cable sheath according to the fire protection standards IEC60332 and IEC60754. See also LSZH.

► Chapter Copper Cabling and Fiber Optic Cabling

FTTH

FTTH (Fiber to the Home) is the fiber optic cabling to the building where the installation ends at the subscriber terminal. For this purpose, for example, the EN 50700 serves as the basis for implementing the network expansion.

► Chapter Fiber Optic Cabling

Full HD

Full High Definition ("completely high resolution"). Standard video resolution of 1920 x 1080 pixels for HDTV-capable output devices such as TVs and beamers - sometimes referred to as 1080p.

► Chapter Multimedia

G.652.D

The ITU-T defines a full spectrum single mode fiber, the Zero Water Peak fiber, under the reference number G.652.D This development from the standard SMF enables CWDM over the full spectral range.

► Chapter Fiber Optic Cabling

G.657.A/B

The ITU-T defines bending-optimized SM fibers under the reference number G.657. Especially for FTTH, smaller bending radii of less than 10mm are required without the loss of transmission quality due to the associated increase in attenuation. The category G.657.A fulfills the compatibility to the SM fiber G.652.D, which does not fulfil the G.657.B category. However, the G.657.B allows the smallest low-loss bending radius.

► Chapter Fiber Optic Cabling

	Specified loss in dB for 1 turn at 1550 nm for radius:								
ITU-T	15 mm	10 mm	7.5 mm	5 mm					
G. 657A1	<0.025*	<0.75	-						
G. 657A2 / B2	<0.03	<0.1	<0.5	*					
G. 657B3	-	<0.03	<0.08	<0.15					

CVI

GBIC

 $\label{thm:converter} \textbf{Gigabit Interface Converter, based on SC Duplex connector system.}$

► Chapter Active Network Components

GE

Abbreviation for Gigabit Ethernet.

► Chapter Active Network Components

GHMT - Gesellschaft für Hochfrequenz und Messtechnik

Society for high frequency and measurement technology. An accredited, internationally recognised test laboratory based in Bexbach, Germany. Particularly appreciated in the entire DACH market area.

► Chapter Fiber Optic and Copper Cabling

HDBaseT™

With the connection standard HDBaseT™ it is possible to transmit high-resolution multimedia signals up to 4K without loss of quality. HDBaseT™ is based on a so-called 5Play™, which combines the transmission of audio/video, Ethernet, USB, control signals and power up to 100m and 100W via one network cable.

► Chapter Multimedia

HDMI - High Density Multimedia Interface

Introduced in 2002 and now in version 2.1. Enables the transmission of video content with a resolution of up to 8K (7680x4320) and a data transfer rate of 48Gbps. A purely digital connection through which video and audio signals can be transmitted. Mainly for home entertainment and PC market.



► Chapter Multimedia

HDTV - High Definition Television

A high-resolution image format, see also Full HD.

► Chapter Multimedia

Horizontal pitch

1 HP = 5,08 mm, see also 19 inch.

► Chapter Network and Server Cabinets

Hub

Used in the USB field as a synonym for an interface multiplier.

► Chapter Multimedia

IEC60320

Defines worldwide the connectors for electrical end devices for power supply with an operating voltage of up to 250VAC.

POA-1000A

► Chapter Power Supply

Injector

Term from the Power over Ethernet category. An injector supplies exactly one end device with data and power, depending on the PoE standard and the Ethernet standard: IEEE802.3af/at/bt for Fast Ethernet 100Mbit/s or Gigabit Ethernet 1000Mbit/s. See also PoE.



Special tool for LSA terminals for applying insulated wires of communication cables to LSA connection technology.

► Chapter Copper Cabling



Interferometer

Insertion tool

Precision measuring instrument for the measurement and evaluation of ferrule end faces, fiber heights and connector angle of assembled connectors in the field of optical fibers.

► Chapter Fiber Optic Cabling

IP - International Protection

IP degrees of protection are standardized according to IEC 60529 (EN 60529). Connectors suitable for industrial use are subdivided according to an IP coding in terms of their suitability for different environmental conditions, in the form of a two-digit number. The first digit stands for the scope of protection with regard to contact with foreign bodies, the second digit classifies the protection against moisture.

► Chapter Copper Cabling

ISDN - Integrated Services Digital Network

A digital network for voice and data services. Today almost completely replaced by IP services such as Voice over IP for digital telephony.

► Chapter Copper Cabling

Keystone

Term for a mounting opening in frames or front panels with the dimensions 15mm x 19.25mm - 20mm. The mounting of various connectors for this snap-in technology is extremely simplified. Although not standardized, this mounting method is very popular on the market.

► Chapter Copper Cabling, Fiber Optic Cabling and Multimedia



KVM switch

KVM stands for Keyboard, Video and Mouse. With a KVM switch it is possible to control a large number of PCs from one console.

► Chapter Multimedia

Locking system 1/3-point

Network/server cabinet locking systems.

A 1-point closure locks centrally at the position of the locking cylinder or the closing point, while a 3-point closure secures the corresponding door at the top/bottom end and at the central locking point. This so-called rod or bar locking is much more complex and qualitative.

► Chapter Network and Server Cabinets

LC connectors

The Lucent connector, also known as LC connector, has a high packing density due to its small dimensions and a ferrule diameter of 1.25mm. The plastic LC connector faces are used in LAN and switch systems, CATV, SONET/SDH, ATM, WDM communication systems as well as in measuring and test equipment. The typical insertion loss of the LC connectors is 0.2dB. The LC connectors are standardized according to IEC 61754-20. The locking mechanism is provided by a springed clip lock.

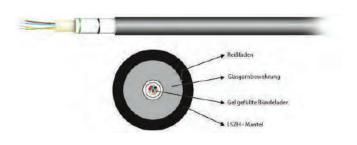




Loose tube

Plastic tubes with different number of fibers as part of a fiber optic cable. The fibers are bundled in the tube.

► Chapter Fiber Optic Cabling



LSA terminal

Solderless - screwless - stripping free, a connection technique used in telecommunications, special tools required - see also application tool. This type of contact is also used today for data outlets and patch panels according to the structured cabling standard acc. to ISO/IEC11801.

► Chapter Copper Cabling



LSZH (LS0H) - Low Smoke Zero Halogen

Indoor cables with flame-retardant and halogen-free cable sheathing in accordance with fire protection standards IEC60332 and IEC60754. See also FRNC.

► Chapter Copper Cabling and Fiber Optic Cabling

Matrix switch

A matrix switch provides the function of switching the inputs and outputs of the switch to each other in different ways. Multiple video input signals can be distributed to several video outputs simultaneously, for example.

► Chapter Multimedia

Media converter

Term for a medium signal converter in the LAN area, which works protocoldependent and, for example, connects the medium twisted pair and the medium optical fiber physically and logically. Example: Media converter Fast Ethernet RJ45 100BaseT to SC Duplex 100BaseFX MM.

► Chapter Active Network Components



Midspan

A midspan is used to connect a power supply according to IEEE802.3af/at/bt PoE for structured cabling lines. The midspan is installed between Ethernet Switch and Permanent Link, see also Injector and PoE.

► Chapter Active Network Components

Mini DIN

Circular connectors with different numbers of poles. Mini Din 6 was used as serial Interface PS/2 for a long time. Today largely displaced from the market by alternative serial interfaces such as USB.

► Chapter Multimedia



MiniGBIC

Mini Gigabit Interface Converter, another name for SFP, based on LC duplex connector system.

► Chapter Active Network Components



Mini Gender Changer

Common term for an adapter of a connector family, e.g. DSUB miniature connector, which acts as a feedthrough adapter. The two pluggable "faces", male/male or male/female or female/ female are the main pillars of the name: gender converter.

► Chapter Multimedia



Mode Conditioning Cable

In these special manufactured duplex jumpers, the singlemode fiber is spliced to one of the two multimode fibers with a defined core offset. This means that the spot of the laser diode is not fed into the DMD susceptible core center, but into the DMD insensitive core edge region of the multimode fiber. Mode Conditioning Jumpers are used on both sides of the transmission path, whereby the single mode fiber must be connected to the transmitter of the transceivers at each end of the communication port. Application area is the optimization of multimode data connections and the extension of the length restriction for Gigabit Ethernet 1000BaseLX (1300nm). In the transmission window "850nm" a singlemode fiber is not defined, so mode conditioning is not possible for the Ethernet protocol 1000BaseSX.

Chapter Fiber Optic Cabling



Modular Adapter

Adapter with two mating faces, e.g. the modular connectors RJ10/11/12/45 connected to the DSUB miniature connector family 9-pin or 25-pin.

► Chapter Copper Cabling



MTPTM/MPO

The MTP™/MPO cabling system impresses with its high scalability and packing density and is standardized according to IEC61754-7 and TIA604-5A. An MTP™/MPO connector has the size of a SC simplex or LC duplex connector, but with the theoretical maximum fiber density of 72 fibers, where as today's applications are based on an 8 or 12 fiber matrix. The parallel optical Ethernet services 40G (4 x 10G) and 100G (4 x 25G) use 8 fibers, 4 fibers for transmission and 4 fibers for reception, which is only available in this size in the MTP™/MPO. A MTP™/MPOconnector must necessarily consist of a male and a female connector to ensure fiber centering. The adapters therefore only have the function of a mechanical holder and pin assignment. MTP™ is fully compatible with MPO. MPO means Multi Fiber Push On. MTP™ means Multi Termination Plug and is a registered trademark of US-CONEC Ltd.





OS1/2

Optical Singlemode Class. OS1 as standard singlemode fiber for structured cabling and city networks. Following the recommendation of ITU-T G.652.D, the full spectrum singlemode fiber has been standardized as OS2 according to ISO/IEC11801. See also G.652.D.

► Chapter Fiber Optic Cabling

Outdoor cable

Fiber cable or copper cable with special plastic for jacket material, like PE. Other different features depending on application are direct burial, longitudinal water tight, UV resistant, rodent resistant or steel ruggated armour etc.

► Chapter Fiber Optic Cabling and Copper Cabling

Patch cable industry level

RJ45 patchcables with special requirement profile for industrial quality, such as UV-resistant, oil-resistant, abrasion-resistant, suitable for drag chains, EMC-safe etc., no standard office patchcable has such special properties.

► Chapter Copper Cabling

Patch cable office

RJ45 patchcable for standard office environments, LAN networks or small data centers.

► Chapter Copper Cabling

Patchpanel

Also known as a patch bay, a defined component in structured cabling according to ISO/IEC11801. Used to connect installation cables for permanent links. The interfaces thus formed with the standardized RJ45 mating faces accept patch cables as a further standardized component for connecting or "patching". A patchpanel or patch field is a reconnection panel that serves to connect, distribute and patch connections and can thus be used for the orderly construction of complex cable structures in buildings. Patchpanels are housed in distribution cabinets and are among the passive components of a network; active components are, for example, switches or routers. By simply replugging patchcables, they allow communication services to be easily switched on at a workstation without having to change structured cabling.

► Chapter Copper Cabling

Network cabinet

Active and passive LAN components are manufactured for the 19 inch mounting option and are mounted in a 19 inch rack system. Network cabinets are designed for 19 inch assemblies and can be configured in a variety of dimensions and special requirements, such as ventilation and exhaust. See also 19 inch.

► Chapter Network and Server Cabinets

Zero modem cable

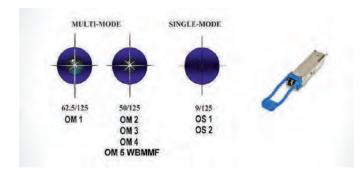
Term from the RS232 serial interface. A DSUB9 jack cable with crossed transmit and receive lines (TX/RX), for direct connection of two equivalent end devices like PCs. In LAN area for Fast Ethernet this crossing of TX/RX is called "crossover cable".

► Chapter Multimedia

OM1/2/3/4/5

Optical Multimode Class. Multimode gradient index fibers. 62.5µm core diameter OM1, 50µm core diameter OM2/3/4/5 with increasing bandwidth/length product. These fibers are optimized for transmission in the 850nm wavelength range. The new optical cabling class OM5 offers/specifies a broadband multimode fiber, which allows a higher range and transmission speed by SWDM technology (Short Wave Division Multiplexing).

► Chapter Fiber Optic Cabling



PD

Powered Device, a term from the field of Power over Ethernet. A PoE IEEE802.3af/at/bt end device with a standardized RJ45 interface to receive data and power.

► Chapter Active Network Components

Pigtail

Core pigtail, made up on one side with a fiber plug to open end. Cable pigtail, assembled cable with a fiber plug on one side to open end. Serves to provide interfaces through detachable connections.



► Chapter Fiber Optic Cabling

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Port doubler

Also called port splitter or Y-adapter, a passive component. The shared medium TP twisted pair is made up with 4 twisted pairs. One network service that use only two pairs for data transmission is for example fast Ethernet. An existing Permanent Link could thus transmit 2 x Fast Ethernet, provided a port doubler is used at both ends of the Permanent Link.



► Chapter Copper Cabling

Profile half cylinder DIN18252

A standardised locking cylinder for network cabinets, garage doors, server cabinets or distribution boxes. In accordance with DIN18252, these half cylinders can be exchanged or used regardless of the manufacturer.

► Chapter Network and Server Cabinets

46087.x



PS/2

Standardized interface for input devices like mouse and keyboard with the Mini DIN connector face.

PSE - Power Source Equipment

A term from the field of Power over Ethernet. A PoE IEEE802.3af/at/bt power supply unit with a standardized RJ45 interface and in the different specified power classes to send data and power. See also PoE.

► Chapter Active Network Components

PUR - Polyurethane

A plastic material e.g. for a cable outer sheath with extraordinary properties: flexibility, abrasion resistance, oil resistance.

PVC

Polyvinyl chloride, plastic material used for power supply cables, control cables or data cables. No halogen-free, low smoke and flame retardant material.

QSFP+

Parallel optical transceiver modules for 40Gbit Ethernet, multimode based on the MTP™/MPO plug-in system

► Chapter Active Network Components



QSFP28

Parallel optical transceiver modules for 100Gbit Ethernet, multimode based on the MTP™/MPO plug-in system

► Chapter Active Network Components



Oualifier

High-quality and very useful measuring device for cabling professionals. According to the limits of the structured cabling according to ISO/IEC11801, the installed transmission lines are qualified, i.e. assessed due to pass/fail. See also certifiers.

► Chapter Copper Cabling

Rack unit U

1 U = 44.45 mm, see also 19 inch.

► Chapter Network and Server Cabinets

Redundant

In this context, a technically and functionally identical system, which is not necessary for normal operation, but increases or guarantees the resilience in the event of a failure. For example, a TV system for the home, which consists of two TVs, whereonly only one TV is required, but in the event of an error the second device would take over the operation without interruption.

Repeater

Repeaters are devices that reprocess or amplify the incoming signal to increase signal range.

► Chapter Multimedia

RJ45 data plug

Or: telephone plug, modular plug, data plug, network plug or Ethernet plug. Today's RJ45 connector is internationally standardized according to IEC60603-7-x and thus categorized according to the well-known grades such as Cat.5e, Cat.6 and Cat.6A.





RoHS: Restriction of Hazardous Substances

The RoHS Directive, which is valid throughout Europe, pursues the clear goal of recycling or disposing of waste electrical and electronic equipment placed on the market in an environmentally friendly manner. The protection of health and the protection of the environment are our top priorities. RoHS-1: Directive 2002/95/ EC, valid from 01.07.2006 RoHS-2: Directive 2011/65/EU, valid from January 2013 RoHS-3: Directive 2015/863/EU, supplement to RoHS-2 By 22.07.2019, in addition to four other prohibited substances, the scope of application will be extended to almost all electrical products. Electrical and electronic equipment has been divided into 11 categories in Directive 2011/65/EU. Category 11 defines other electrical and electronic equipment, including all assembled cables with live conductors, and comes into force on 22.07.2019. The list in RoHS-2 contains six prohibited substances, RoHS-3 another four, so a total of 10 prohibited substances are in focus. In Germany, the Electrical and Electronic Equipment Substances Ordinance (ElektroStoffV) implements the RoHS directives on the prohibition of hazardous substances in electronic devices. The CE marking obligation includes the unique company address of the manufacturer or distributor on the product.

RS232

The standard EIA-232, RS232, CCITT V.24 describes the serial connection between a data terminal equipment (DTE) and a data communication equipment (DCE) transmission device with its electrical and mechanical properties. Although the standard only defines this type of connection, the RS232 interface has long established itself as a general standard for serial data transmission over short distances. The RS232 standard usually defines DSUB miniature plugs 9-pin or 25-pin as the standard plug-in connection. As with all serial transmission methods, the achievable distance between two RS232 devices depends on the cable used and the baud rate. As a guideline, a distance of 15m to 30 meters should not be exceeded.

Safety glass

A glass pane breaks into very small shards, which minimizes the risk of injury in the event of damage. The certification of ESG glass is always marked with an imprint.

► Chapter Network and Server Cabinets

SATA

Serial Advanced Technology Attachment, a standardized serial PC interface for hard drives.

ST plug

This AT&T-specified fiber optic connector is suitable for both singlemode and multimode fibers, as well as versions for plastic optical fibers. The term BFOC/2.5 according to IEC-874-10 was often used: Bayonet Fiber Optic Connector with 2.5mm ferrule diameter. ST connector (Straight Tip) is widely used in Local Area Networks (LAN) or Metropolitan Area Networks (MAN). The bayonet lock and a sturdy metal body characterize the connector. In active components, increasingly displaced from the market by the LC plug.

53202.x

► Chapter Fiber Optic Cabling

Server cabinet

Network cabinet with optimized dimensions for network devices such as High Class Server or Blade Server. See also network cabinet.

► Chapter Network and Server Cabinets

SFP - Small Form Pluggable

Formerly called MiniGBIC, optical transceiver modules are plugged into SFP slots. Modules are available for fiber optics with LC duplex port and copper TP with RJ45 port for the Ethernet standards Fast Ethernet and Gigabit, SFP+ for 10Gigabit and 25Gigabit.



FTLF8519P3BNL

SFP+

Optical transceiver modules for 10Gbit Ethernet and 25Gigabit, based on LC duplex connector system.

► Chapter Active Network Components

Shielding

Metallic shell to reduce electromagnetical interferences for error free data transmission, otherwise electromagnetic radiation of datacables would be minimized. Depending on quality and application area cable manufacturer include different conductive metal materials.

► Chapter Copper Cabling and Multimedia

Surge protection

Term for the protection of sensitive electronic circuits against excessive supply voltages, which can have destructive effects, e.g. in the event of lightning.

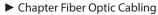
SNMP - Simple Network Management Protocol

A network protocol that can be used for remote maintenance and error monitoring of network components used. SNMP allows you to use management programs to monitor and control switches from different manufacturers.

► Chapter Active Network Components

Splice box

Term from the field of fiber optics, also called splice distributors. A housing, usually for 19 inch racks, for mounting and fastening external fiber cables, trunk cables, splice cassettes, pigtails and fiber optic adapter. This splice distributor is a defined component of ISO/IEC11801 structured cabling.





Splicing device

Splicing is the term for fusion two fibers. Splicing equipment is very high quality and expensive. The necessary melting temperature of the fiber is generated in the splice device by a high electrical voltage, therefore also called arc splicing or fusion splicing. Splicing has the highest quality of non-removable connections.

► Chapter Fiber Optic Cabling



VIFW8+

Splitter

this term for an active device in the Mutimedia world means a multiplier of the signal input.

For example, a HDMI splitter with one input and 8 outputs distributes an HDMI Signal to 8 HDMI monitors. Both analog audio or video signals can be split, as well as any audio/video signals in digital form. Multimedia Image: IDATA-HDMI2-4K8HDR

► Chapter Multimedia



Stripping tool

Special tool for stripping plastic jacket of cables in a defined length, doesn't matter if copper cable or fiber cable.

► Chapter Fiber Optic Cabling, Copper Cabling and Multimedia



Subrack

Term for a standardized 19"-rack acc. to DIN 41494 19"-system with 84 HP. See also 19 inch.

► Chapter Network and Server Cabinets and Fiber Optic



SVGA

Super Video Graphics Array, analog video standard, see also VGA.

► Chapter Multimedia

SWDM - Short Wave Division Multiplex

WDM is known as a transmission technology for long-distance traffic, but with single mode fibers. A few years ago, ISO/IEC adopted a new multimode class OM5, which was defined for the transmission windows 850nm, 880nm, 910nm and 940nm with the corresponding modal bandwidth. Furthermore, OM5 is backwards compatible with OM4/3/2. The Team SWDM Transceiver plus OM5 multimode fiber allows transmission rates of up to 100Gbps with only two fibers (LC connection) and distances of up to 150m in the LAN range.

► Chapter Fiber Optic Cabling

Switch

Switching hub, operator, distributor. A central and essential device for communication in Ethernet Local Area Networks. Each workstation on the LAN must be physically connected to the switch. The Twisted Pair medium is contacted with the RJ45 plug-in face. Various Ethernet transmission speeds coupled with Power over Ethernet are usually standard in 19 inch format.







TAE

Standardized measure for switch program manufacturers for plastic covers, see also design capable.

► Chapter Copper Cabling

Terminator

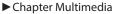
Terminators are made of same impedance value as copper transmission cable to avoid spectral reflections at the end of a buscable. The Ethernet in the nineties, also called 10Base5, 10Base2 or Cheapernet genannt, was realized with a special kind of coaxial cable as a bussystem and 50 Ohm impedance. Both ends of this bussystem had to be terminated with 50 Ohm. If not, spectral reflections occur at both ends with the result of big jamming for transmitted signals.

Chapter Multimedia

52524.1

Thunderbolt 3

The well-known Thunderbolt 2 connector based on the Mini DisplayPort interface, which is mainly found on Apple devices, will be replaced by a Thunderbolt 3 interface with type C connector in the future. This is an interface that can simultaneously transport video/audio, data, USB and power.





TM11/21/31

Series of shielded RJ45 connectors for structured cabling according to ISO/IEC11801. Highest manufacturing precision and impressive electrical and mechanical properties characterize this family of connectors from the Japanese global company Hirose.

► Chapter Copper Cabling



TPE - Thermoplastic elastomer

A very flexible plastic material for e.g. extremely smooth patch cables. ► Chapter Copper Cabling

Transceiver

Compound word of transmitter and receiver. Today, these modules are used e.g. in Ethernet switches. The SFP, Small Form pluggable, is in high demand regarding LAN sector and allows easy adaptation to the medium multimode, single mode or twisted pair. See also MiniGBIC or SFP.

► Chapter Active Network Components

Trunk cables

are an option for the required application regardless of the selected medium in fiber optics, twisted pair or even in the form of coax cables. A trunk transports a variety of communication channels with a wide variety of transmission protocols over a corresponding distance. Example: a medium-sized data center from point A to point B over 100m with 144 channels transmitting the Ethernet 25Gbit/s protocol. These so-called backbones save space, provide an overview and even reduce fire loads. There are different connectors to choose from for each medium, but above all they should have the advantage of packing density.



► Fiber optic cabling and Copper cabling

Twisted Pair

Term for a cable structure with roped pairs. A standardized installation cable of category 5/6/6A/7/7A/8 has 4 sealed pairs with different twist pitches. Twisting minimizes the electromagnetic interference between the pairs in this symmetrical signalling technology.





Type C

In 2014, the new Type C connector was released at the same time as the USB3.1 standard. The Type C connection is very versatile, which can meet the high performance requirements of the USB3.1/3.2 and can be used for other applications at the same time. The USB3.x standard is divided into two generations: Cable assemblies for up to 5Gbps, which also applies to the older USB3.0 standard, can now also be named USB3.1 Generation1. Cable assemblies designed for 10Gbps will be renamed to USB3.1 Generation2. Other Type C cable variants are: Alternate Mode, cable assemblies with type C connectors switched to alternative operating mode. This allows you to create cables that support DisplayPort, HDMI or MHL. This interface can simultaneously transport video/audio, data, USB and power.

► Chapter Multimedia

Ultra HD - Ultra High Density

UHD defines a digital video format with a pixel resolution of 3840 \times 2160, double the size of Full HD. In the area of monitoring, a guarantee for razor-sharp images or films.

► Chapter Multimedia

UNC - Unified Coarse Thread

A thread standard commonly used in America and Canada based on inch dimensions. UNC and the European metric thread standard are not compatible.

► Chapter Multimedia

USB - Universal Serial Bus

A serial interface for the consumer mass market. Fast data transfer and power supply are provided by USB. On the market since 1996, really widespread since 1998 with the 1.1 version and support in Windows operating systems. Has been used since the Market launch regularly renewed with new plugs and functions. That's why USB has displaced almost every other variant in the multimedia sector. Standards: USB1.0 12Mbit/s, power supply 500mA max. USB2.0 480Mbit/s, power supply 500mA max. USB3.0 5000Mbit/s, power supply 900mA max. Since 2014 there is the USB3.1/3.2 version, twistproof plug by Type-C connector. With 10Gbit/s (3.2) and a power supply of up to 100W, this is a significant increase in performance compared to USB3.0. When the USB3.2 standard 2019 was released, it was already clear that we would get another new USB standard a short time later. An important goal for the USB4 standard has been to bring together the USB and the Thunderbolt standard, which is so widespread in the Apple world. USB4 cables now have the possibility to be fully compatible with the Thunderbolt3 interface. However, it must be ensured that they have a chipset that allows this compatibility. A detailed table can be found in the chapter below. See also Type C.

► Chapter Multimedia





UAE

Standardized measure for switch program manufacturers for plastic covers, see also design capable.

VGA - Video Graphics Array

Analog video standard introduced by IBM into the PC market in 1987. Connector of this interface is a D-Sub miniature connector in high density format with 15 pins, HDSUB15. Predominant use of VGA/SVGA cables when using older devices (projectors, displays)

► Chapter Multimedia

Video Splitter

Video splitter multiplies the video input signal to multiple output signals. This makes it possible to display one image signal on several displays at the same time.

► Chapter Multimedia

Video Switch

A video switch provides the possibility between multiple video inputs in relation to one video output.

► Chapter Multimedia

VLAN - Virtual Local Area Network

A port-based virtual network is distinguished from manageable switches or a dynamic VLAN of multiple switches of an entire network structure, the standardized tagged VLAN according to IEEE 802.1Q.

► Chapter Active Network Components

WDM

Wave Division Multiplex, see CWDM and DWDM.

► Chapter Fiber Optic Cabling

Web Smart, Web managed

Label for Ethernet switches with web interface for internal management functions.

► Chapter Active Network Components

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20416.1		2L-5203P		37578.1		39961.1A		46042.5	
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20426.1		2L-5206P 2L-5206UP		37580.1		39964.1		46051.1	
20440.1		30044.1		37580.1		39975.1		46052.1	
22010.1		33904.1		37583SW.1		39976.1		46053.1	
22014.1		33905.1		37585.1		39978.1		46054.2	
22016.1		33907.1		37586.1		39988.2		46055.2	
22020.1	307	34231.1	308	37586.1SW	123	39988.2	103	46055.3	171
22026.1		34501.1		37588.1		39988.2		46074.1V2	171
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22310B.30R		34505.1		37595SW.2		39989.2		46077.1V2	
22314B.30R		34506.1		37596.1		39989.4		46078.1V2	
22316B.30R		34509.1		37596.2 37597.1		39989.4		46079.1V2 46080.1V2	
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22350B.30R		34604.1		37666.1M		399900.1		46087.1	
28603.1	304	34605.1	305	37666SW.1M	150	399900.2	100	46087.1	246
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28614.1		34608.1		37668.1M		46001.2		46087.2	
28617.1		34609.1		37673.1-100		46002.1V2		46087.3	
28653.1		34610.1		37680.1		46002.2		46087.3	
28656.1		34701.1		37681.1		46003.1		46087.4	
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28753.1		37487.1		37736SW.8		46006.2		46095.100	
28756.1		37488.1		37737.12		46006.2F		46096.100	
28759.1		37489.1		37737.8		46007.1		46097.100	
28762.1		37489.2		37737SW.12		46007.2		46098.100	
29010.1		37501SW.1		37737SW.8		46008.1		46099.100	
29011.1		37501SW.137501SW.1		37738.12 37738.8		46008.2 46009.1		46100.100	
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46148.1		53100.210		53302.32		53600TS.8		54248.1L-CPR	
46150.24 46150.48		53100.211 53100.211		53302.33		53600TS.9		54404.1L-CPR	
46150.60		53100.212		53302.33 53303.32		53601.0 53601.1		54408.1L-CPR54408.3LOM3-CPR	
46152.1		53100.212		53305.31		53601.10		54408.3LOM3-CFR5	
46154.1		53100.213		53307.34		53601.2		54408.3LOS2-CPR	
52497.1		53100.213		53312.34		53601.3		54412.1L-CPR	
52500.1		53100.22		53316.3		53601.4		54412.3LOM3-CPR	
52500.2		53100.22		53316.3		53601.6		54412.3LOM4-CPR	
52501.1		53100.3		53316.34		53601.7		54412.3L0S2-CPR	
52502.1		53100.3		53316.35		53601.8		544144.1L	
52506.1		53100.3		53316.35		53601.9		54424.1L-CPR	
52509.1		53100.3		53316.36		53601TS.0		54424.3LOM3-CPR	
52511.1		53100.3		53319.3		53601TS.1		54424.3LOM4-CPR	
52514.1		53100.31-30		53320.3		53601TS.4		54424.3L0S2-CPR	
52515.1		53100.32		53320.34		53601TS.9		54448.1L-CPR	
52518.1		53100.32		53333.1		53603.1		54448.3LOM3-CPR	
52519.1		53100.32		53333.10M5		53603.1WS		54448.3LOM4-CPR	
52522.1V2		53100.32		53334.1		53603.2		54448.3L0S2-CPR	
52523.1V2		53100.32		53334.1		53603.3		54496.1L-CPR	
52524.1		53100.32		53334.10M5		53603.4	52	54504.1L-CPR	
52527.x		53100.32-150		53334.10M5		53603.S		54504.10M5-CPR	
52529.x		53100.32-150		53335.1		53604.1V1		54504.2L-CPR	
52533.1		53100.32-150		53343.1		53604.2		54508.1L-CPR	64
52535.2		53100.32-150		53343.31		53604.3	52	54508.2L-CPR	
52536.2		53100.32-150		53343.31		53604.3V		54512.1L-CPR	
52537.x	310	53100.32-150	59	53343.32	54	53604.3VOB	52	54512.10M5-CPR	64
52553.1	311	53100.5		53343.32	92	53604.4		54512.2L-CPR	
52554.1	311	53100.50	59	53348.32	92	53605.1	53	54524.1L-CPR	64
52574.1	311	53100.50	59	53350.31	54	53605.2	53	54524.10M5-CPR	64
52576.1	311	53100.6	58	53350.31	92	53605.3	53	54524.2L-CPR	64
52580.1	311	53100.6	58	53352.3V1	92	53605.4	53	54548.1L-CPR	64
52581.1	311	53100.7	58	53353.1	92	53605.5	53	54548.2L-CPR	64
52583.1	311	53100.8	38	53353.3	92	53608.0	47	55002.1	68
52594.1	311	53100.8	38	53353.31	57	53608.4	47	55002.10M3	68
53010.5	60	53100.8	58	53353.31	92	53608.9	47	55002.10M4	68
53012.1	60	53100.8	58	53353.32	92	53640TS.10	47	55002.10M5	68
53018.1	46	53100.9-100	105	53355.32	92	53640TS.3	47	55004.1	68
53025.1-100	60	53100.9-100	106	53356.1	93	53640TS.4	47	55004.10M3	68
53026.1-100	60	53100.9-100	107	53357.31		53640TS.9	47	55004.10M4	68
53028.1-100	60	53100.9-100	35	53357.31	92	53670.x	28	55008.1	68
53031.2		53100.9-100		53360.x		53680.x		55008.10M3	
53031.2TS		53100.91-100		53361.x		53681.x		55008.10M4	
53034.1V2		53100.91-100		53365.x		53682.x		55012.1	
53036.1		53100.91-100		533680.x		53683.x		55012.10M3	
53036.2		53100.91-100		53458.1		53697.1		55204.1A	
53036.3		53100.91-100		53458.1		53700.1V2		55204.10M3A	
53042.1		53100.91-100		53458.1		53700.2		55204.10M4A	
53100.10		53102.32		53458.1V2		53700.2		55208.1A	
53100.110		53103.3		53458.1V2		53701.1V2		55208.10M3A	
53100.200		53196.1	,	53510.1		53702.1		55208.10M4A	
53100.200		53197.1	,	53511.1		53702.1		55212.1A	
53100.200		53198.1	,	53511.1		53703.1		55212.10M3A	
53100.200		53199.1	,	53512.1		53704.1		55212.10M4A	
53100.200		53200.1		53513.1		53705.1V3		55224.1A	
53100.201		53201.1	,	53515.1		53705.2V2B		55224.10M3A	
53100.201		53202.3		53515.1		53705.2V2B2		55224.10M4A	
53100.201 53100.202		53202.31 53202.32		53516.1 53517.1		53705.3V2B 53705.3V2B2		55248.1A55248.10M3	
53100.202		53202.32		53518.1		53705.4V2B		55248.10M3	
53100.202		53204.1		53519.1		53705.4V2B2		55404.1	
53100.202		53205.30	,	53519.2		53705.5V2B		55408.1	
53100.203		53205.31		53523.1		53706.1		55412.1	
53100.203		53206.11		53525.1		53706.2		554144.1	
53100.203		53206.12		53526.1		53710.1		55424.1	
53100.203		53210.1		53526.1		53711.1		55448.1	
53100.204		53210.2		53529.1V2		53711.10		55472.1	
53100.204		53210.3		53531.1		53711.11		55496.1	
53100.205		53214.1		53532.1V2		53711.21		55902.1	
53100.205		53214.2		53600.0		53711.30		55904.1	
53100.206		53215.1		53600.1		53711.31		55908.1	
53100.206		53216.3		53600.10		53711.32		55912.1	
53100.207		53217.1		53600.2		53712.1		56204.3	
53100.207		53227.3		53600.3		53713.1		56204.3	
53100.208		53227.4		53600.4		53714.1		56204.4	
53100.208		53227.5		53600.6		53719.1V2		56204.4	
53100.209		53232.5		53600.7		53719.1V2		56312.10M3-CPR	
53100.209		53232.6		53600.8		53720.1		56312.10M4-CPR	
53100.21		53232.7		53600.9		53730.1V2		56312.10S2-CPR	
53100.21		53233.8		53600TS.1		53930.1		56324.20M3-CPR	
53100.21		53233.9		53600TS.10		54204.1L-CPR		56324.20M4-CPR	
53100.21		53234.6		53600TS.2		54208.1L-CPR		56324.20S2-CPR	

Itam	Dago	Itom	Dago	Itam	Dago	Itam	Dago	Itam	Dage
Item	_	Item	_	Item	-	Item	_	Item	_
56348.20M3-CPR	67	691650GR.1B	236	691703V	225	691790.10	258	699992	
56348.20M4-CPR	67	691650GR.2A	236	691703VTS	225	691790.11	258	699992TS	242
56348.20S2-CPR	67	691650GR.2B	236	691703VWS	225	691790.12	258	699993	243
60319.1	263	691650GR.3	236	691704FGR.1	221	691790.13	258	699993TS	243
691099	247	691650GR.W	236	691704FTS.1	221	691790.17	258	699993TSV2	243
691100	247	691650TS.1A	236	691704VGR.40	222	691790.18	258	699993V2	243
691102	189	691650TS.1B	236	691706.1-AK		691790.2		699995	
691102		691650TS.2A		691706FGR.1		691790.5		699995.1	
691103		691650TS.2B		691706FTS.1		691790.6		699995TS	
691104		691650TS.3		691706V		691791.1		699995TS.1	
691104		691650TS.W		691706VGR.40		691791.2		699996	
691265		691651AGR.10		691706VGR.50		691791.3		699996	
691265PF.GR	245	691651AGR.12	237	691707IP55.1	218	691791.4	259	699997	239
691265PF.TS	245	691651AGR.6	237	691707IP55.1G	218	691791.5	259	699998	242
691265TS	245	691651AGR.8	237	691707IP55.2	218	691791.6	259	699998TS	242
691266	245	691651ATS.10		691707IP55.2G		691791.7		699999.1	243
691266PF.GR		691651ATS.12		691709.1-AK		691791.8		699999.2	
691266PF.TS		691651ATS.6		691709FGR.1		691795.1		699999TS.1	
691266TS								699999TS.2	
		691651ATS.8		691709FGR.2		691795.2			
691267		691651FGR.10		691709FTS.1		691795.3		71501.1	
691267TS		691651FGR.12		691709FTS.2		691795.4		71502.1	
691268	245	691651FGR.6	237	691709IP55.1	218	691801	228	71503.1	308
691268TS	245	691651FGR.8	237	691709IP55.1G	218	691803GR.4	228	71503.2	308
691269	245	691651FTS.10	237	691709IP55.2	218	691803GR.6	228	71504.1	308
691269TS		691651FTS.12		691709IP55.2G		691803GR.9		71505.1	
691271		691651FTS.6		691709VGR.40		691803TS.4		71506.1	
691273.1		691651FTS.8		691709VGR.50		691803TS.6		71506.2	
691273.10V2		691651KGR.10		691709VGR.60		691803TS.9		71508.1	
691273.12V2		691651KGR.12		691712.1-AK		691820GR.1		71510.1	
691273.8V2		691651KGR.6		691712FGR.1		691820GR.2		71512.1	
691274.1	234	691651KGR.8	237	691712FGR.2	221	691820TS.1	229	71516.1	308
691275.3	244	691651KTS.10	237	691712FTS.1	221	691820TS.2	229	77507.1	308
691275.5	244	691651KTS.12		691712FTS.2		691821		77510.2	
691275.7		691651KTS.6		691712IP55.1		691821TS		80165.3	
691277.1V2		691651KTS.8		691712IP55.1G		691822		80165.6	
691277TS.1V2		691653GR.6		691712IP55.2		691824		80550.1-100	
691604VGR.50		691653GR.80		691712IP55.2G		691826		80550.1-50	
691604VGR.60	223	691653TS.6	238	691712VGR.40	222	691826TS	229	80550.1-50	92
691606VGR.50	223	691653TS.80	238	691712VGR.50	222	691831GR.2	227	80550.1-50	94
691606VGR.60	223	691654TSV3	217	691712VGR.60	222	691831GR.3	227	80555.1	60
691609VGR.50		691654V3		691715.2-AK		691831GR.4		80715.1-200	
691609VGR.60		691655TSV3		691715FGR.1		691831GR.6		80715.1-200	
691612VGR.50		691655V3		691715FGR.2		691831GR.9		81022.100	
691612VGR.60		691656GR		691715FTS.1		691831TS.2		81022.100	
691615VGR.50		691656GR		691715FTS.2		691831TS.3		81022.100	
691615VGR.60	223	691656TS		691715VGR.50	222	691831TS.4		81041.100	
691621VGR.50	223	691656WS	224	691715VGR.60	222	691831TS.6	227	81043.100	309
691621VGR.60	223	691657.1	232	691716IP55.1	218	691831TS.9	227	81044.100	309
691631GR.24	197	691659TSV3	217	691716IP55.1G	218	691831WS.2	227	81132.100	309
691631GR.42	197	691659V3		691716IP55.2		691831WS.3		81150.25	
691640AGR.02		691660		691716IP55.2G		691831WS.4		81834.2	
691640ATS.02		691661		691718VGR.60		691831WS.6		83030.2	
								83127.1V2	
691640FGR.02		691661.1		691720IP55.1		691831WS.9			
691640FTS.02		691664		691720IP55.1G		692442IP55.GR		83184.1	
691641FGR.10		691664		691720IP55.2		692442IP55.TS		83187.1	
691641FGR.12	238	691664F	227	691720IP55.2G	218	692524IP55.GR	217	83187.S	
691641FGR.6	238	691665	244	691721FGR.2	221	692524IP55.TS	217	83189.1	
691641FGR.8	238	691667GR.2A	237	691721FTS.2	221	692615N-AK-GR	214	83189.3	
691641FTS.10	238	691667GR.2B		691721VGR.60		692724IP55.GR		83189.3S	
691641FTS.12		691667GR.2C		691742IP55.GR		692724IP55.TS		83200.1	
691641FTS.6		691667TS.2A		691742IP55.TS		693046.10		83205.1	
691641FTS.8		691667TS.2B		691750WIP.1		693126.60-AK-BU		88035.1	150
691642.1		691667TS.2C		691750WIP.2		698023.3		88035.1	
691642.1		691670		691776.06		698026.1		88035.2	
691642.2		691683		691776.09		698026.3		88035.2	
691642T.1	232	691684	251	691776.12	223	699980.1	241	88035AV.1	
691642TTS.1	232	691685	251	691776.15	223	699980.2	241	88035AV.1	298
691646		691685K		691776.18		699980TS.1		88035P8.1	
691646.1		691686		691776.21		699980TS.2		88035UTP.1	
691646.2		691686K		691777GR.1		699981.1		88048.1-10	
691646TS		691687		691777GR.1		699981.2		91058.x	
691646TS.1		691687K		691777GR.2		699981TS.1		91059.x	
691646TS.2		691688		691777GR.2		699981TS.2		91074.x	
691649		691689		691777GR.3		699982.1		91104.100	181
691649.1	239	691689K	251	691777GR.3	235	699982TS.1	241	91104.500	181
691649.1B		691689SW	251	691780	253	699989	224	91105.100	
691649.1TP		691693		691781		699989		91106.100	
691649TS		691694		691782		699991.1		91106.500	
691649TS.1		691695				699991.1S			
				691783				91107.100	
		691696	253	691784	258	699991.2	241	91108.100	181
691649TS.1B				404705		400004			
691649TS.1B	239	691697	253	691785		699991.2S		91108.500	
691649TS.1B 691649TS.1TP 691649TS.1TP-US	239 239	691697 691698	253 251	691786	258	699991.3	241	91108.500 91109.100	181
691649TS.1B	239 239	691697	253 251		258		241	91108.500	181

Item	-	Item	-	Item	-	Item	-	Item	-
91259.1		B65901.60M4	45	BA71203.xx0M4		E-20070	126	EBUSBC-DP-4K60PD	28
92704.100		B65901.8	45	BA71203TS.xx0M3	43	E-20070-IF	298	EBUSBC-DP-8K60	28
92706.100		B65901.80M3		BA71203TS.xx0M4		E-20072		EBUSBC-DVI	
92708.100		B65901.80M4		BA71223.xx		E-20072		EBUSBC-DVIK.2	
92804.100		B71006.xx0M3		BA71223TS.xx		E-20080		EBUSBC-HDMI-4K30	
92806.100		B71006.xx0M4		BA71228.xx		E-20091		EBUSBC-HDMI-4K30K.2	
92808.100		B71006TS.xxOM3		BA71228TS.xx		E-20091		EBUSBC-HDMI-4K60	
92944.30R		B71203.120M5		BA71503.xx		E-20091		EBUSBC-HDMI-4K60K.2	
9870x.x		B71203.xx0M3		BA71503.xx0M3		E-20091		EBUSBC-HDMI-8K60	
9871x.x		B71203.xx0M4		BA71503.xx0M4		E-20091		EBUSBC-HDMI-8K60K.2	
9915x.x		B71203TS.xx0M3		BA71523.xx		E-20092		EBUSBC-LIGHTMFI.x	
9925x.x		B71203TS.xx0M4		BA71533.xx		E-20092		EBUSBCM-AF	
99525.x		B71223.xx		BA71533SA.xx		E-20093		EBUSBCM-MIKROBF	
99526.x		B71223TS.xx		BA71533TS.xx		E-20093		EBUSBC-RJ45-1000MBIT	
99526MC.x		B71228.xx		BA71901.xx0M3		E-20093		EBUSBC-RJ45-2500MBIT	
9962x.x		B71503.xx		BA71901.xx0M4		E-20093		EBUSBC-USB20AK.x	
9970x.x		B71503.xx0M3		BA71901.xx0M4		E-20093		EBUSBC-USB20CK.1	
99710.x		B71533TS.xx		BA71901.xx0M5		E-20095		EBUSBC-USBA10GE.5	
99726.x		B71901.xx0M3		BA71901V.xxOM3		E-20095		EBUSBC-USBC10GE.5	
99731.x		B71901.xx0M4		BA71902.xx0M3		E-20095		EBUSBC-USBC10GE.x	
99732.x		B71901.xx0M5		BA71902.xx0M4		EB0909		EBUSBC-USBC5GAK.x	
99733.1-CPR		B71901TS.xxOM3		BA71902TS.xx0M3	42	EB0909M		EBUSBC-USBC-REP.5	27
99733.x-CPR		B71901TS.xx0M4		BA71902TS.xx0M4		EB0925		EBUSBC-VGAK.2	
99739.x		B71902.xx0M3		BA71920.xx		EB1515M		EHT-010	
99827.1		B71902.xx0M4	42	BA71921.xx		EB2104		EHT-010	
99827.x	154	B71902TS.xxOM3	42	BA71921SA.xx	42	EB2525		EHT-040	
99956.x		B71902TS.xx0M4		BA71921TS.xx		EB2525M		EHT-040	
99961.305-CPR		B71920.xx	42	BA71922.xx	42	EB3101	279	EK125.x	30
99962.x-CPR	154	B71921.xx	42	BA71922TS.xx	42	EB410	304	EK129.x	30
99965.x-CPR		B71921SA.xx		BA71924.xx		EB410MF		EK131.x	
99978.x-CPR		B71921TS.xx		B005A13602D-B0		EB411		EK137.x	
99978DX.500-CPR		B71922.xx		B005A13610D-B0		EB412		EK143.x	
99980.1-CPR		B71922TS.xx	42	B005C13610D-B0	332	EB413	304	EK150.x	30
99980.x-CPR		B71924.xx		B005C856S5D-B0		EB414		EK152.x	
99980DX.x-CPR		B78203.xx0M3		B008C28S1-B0		EB414MF		EK165.x	
99981.1-CPR		B78203.xx0M4		B008J78S6-B0		EB415		EK318.x	
99981.1-CPR		B78902.xxOM3		B0353503J10M-B0		EB418		EK319	
99981.x-CPR		B78902.xxOM4		B0353503J1M-B0		EB419		EK322.x	
99981DX.x-CPR		B79006.xx0M3		B0353503J20M-B0		EB420		EK323.x	
99983.1-CPR		B79006.xx0M4		B0353503J3M-B0		EB438V2		EK324.x	
999830.1-CPR		B79023.xx		B0353503J4M-B0		EB439		EK460.1,8	
999830.x-CPR		B79203.xx0M3		B0353503J5M-B0		EB457		EK462.1,8	
999830DX.x-CPR		B79203.xx0M4		B035J13610D-B0		EB458V2		EK467.1,8	
99985.1-CPR		B79523.xx		B035J856S3D-B0		EB460V2		EK468.1,8	
99985.x-CPR		B79920.xx		CE-700A		EB462V2		EK469.1.8	
99985DX.x-CPR		B79921.xx		CFOC2-AA				EK480.1.8	
99985DX.x-CPR B37200100GR.24						EB479V2		EK481.1,8	
B37200100GK.24 B37200100TS.24		B88203.12		CFOC2-AB CFOC-MB		EB484 EB484-4K30		EK482.1,8	
		B88203.120M3		CI-1100					
B61003.xx		B88203.120M4				EB484-4K60		EK483.1,8V2	
B61203.xx		B88206.24		CL-1000M-AT-GG		EB485V2		EK484.2	
B61203.xx0M3		B88223.12		CL-1000M-AT-GG		EB489		EK487.1,8	
B61203.xx0M4		B88224.12		CL-5708M		EB498V2		EK488.1,8	
B61223.xx		B88226.12		CL-5716M		EB515		EK490.1,8	
B61223TS.xx		B88228.12		CM600		EB515.2		EK491.1,8	
B61533.x		B88403.120M3		CM650		EB515.3		EK492.1,8	
B61901.xx		B88403.120M4		CM800		EB515.5		EK492.1,8V2	
B61901.xx0M3		B88503.12		CM850		EB515.6		EK493.1,8	
B61901.xx0M4		B88503.120M3		DCK1001GR.x		EB515.7		EK494.1,8	
361901TS.xxOM3		B88503.120M4		DCK1001xx.x		EB515.8		EK495.1,8V2	
361902.xx		B88523.12		DCM1000.H		EB520V2		EK496.1,8	
361921.xx		B88533.12		DCM1000.T		EB520V2		EK497.1,8	
361921TS.xx		B88901.120M3		DCM1001.D		EB527V2		EK498.1,8	
361922.xx		B88901.120M4		DCM1002.2		EB527V2		EK498.3	
B65901.100M4		B88902.12		DCW1002		EB534		EK498.5	
865901.12		B88902.120M3		DCW1002.1		EB534		EK499.1,8	
365901.120M3	45	B88905.120M3	61	DCW1002.2		EB537V2	279	EK499.3	
365901.120M4	45	B88905.240M3	61	DCW1003	161	EB552	124	EK499.5	26
865901.16	45	B88921.12		DCW1003		EB552		EK500.2	
365901.160M4	45	B88922.12	61	DCW1003.1	161	EB552WS	124	EK500.3	26
365901.180M4	45	B88924.12	61	DCW1003.1	161	EB552WS	275	EK500.5	26
865901.2	45	B88925.12	61	DCW1008	163	EB853C	283	EK501.2,5V2	26
65901.24	45	B88925.24	61	DJP-LCLCOM3-UNI-xx	79	EB914	304	EK501.2V2	26
365901.240M3		B9000.1		DJP-LCLCOM4-UNI-xx		EB914F		EK501.3V2	
365901.240M4		B9000.1		DJP-LCLCOS2-UNI-xx		EB963		EK501.5V2	
365901.20M3		B9000.1,5		DLOKUPFER-Dämpfung		EB973V2		EK502.2V2	
365901.20M4		B9000.1,5		DLOLWL-Dämpfung		EB977		EK502.3	
365901.3		B9004.1		DLOLWL-OTDR		EB978		EK502.5	
		B9004.1		DLOLWL-Interfero		EB979		EK503.0,5	
5D59U1.3UIVI3		BA71006.xx		DLOWICKEL2		EB986		EK503.1	
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365901.30M4		RΔ71006 vv0M2	1/3	F-200100				FK503.7	
365901.30M3 365901.30M4 365901.4	45	BA71006.xx0M3 BA71006.xx0M4		E-200100		EBUSBC40-20G.2		EK503.2	
365901.30M4 365901.4 365901.40M3	45 45	BA71006.xx0M4	43	E-200100	124	EBUSBC40-TB40G.0,8	274	EK503.3	26
365901.30M4	45 45 45		43		124 125		274 286		26 26

DSA-19	Item	Pane	Item	Pane	Item	Pane	Item	Pane	Item	Pane
BOAT				_		-		-		-
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SCAMP 1963										
SMARLES 22 88.93 24 SMS SERVINE 30 F1 / SMS 1 17 F1 minute (SMS SERVINE										
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BOOMERS 20 MARKWOT 25 BAYSERMAR 20 BAYSERMA										
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SEMPLO A. A. SEMPLOS DAY	,									
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BSS1911	,									
BSSS11,3	,									
BG331_1,										
BGS342	,									
BGS413	,									
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BGSS12										
BSS353										
BSSS 261 BSV-42666P10S 200 E1-250742 57 FLFS13PBRI 332 FX_AD_ST										
BGSS21/8 267										
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EKSS1 S	,								GEP-0522	316
EKSS_18/V 262 ESV_4766GR_PIPOS 200 EF_25990K 125 FTH-BOX.NH	EK551.5	262					FTTH-BGT-3HE	20		
FISS_23_V2			ESV-4760GR.P1P20S	200			FTTH-BGT-3HE	27	GEP-0822	316
EKSBS 304	EK552.3V2	262			ET-25090K	125	FTTH-B0X-IN-1	24	GEP-1021	316
EKSSS	EK552.5V2	262	ESV-4762GR.P1P20S	200	ET-25091	119	FTTH-B0X-IN-2	24	GEP-1061	315
EKSSS_2	EK560.030V2	304	ESV-4780GR.P10S	200	ET-25091	125	FTTH-B0X-IN-3	24	GEP-1621	316
EXSSS 264 EV-4RROT 201 ET-25092.1 124 FTTH-BOX.IN-6 24 GFP-2681	EK585.1	264	ESV-4780GR.P1P20S	200	ET-25092	124	FTTH-B0X-IN-4	24	GEP-1622	316
EKS88BL I,8V2 261 ESY-ANR01 201 ET-25092.1 290 FTTH-BOX-INT-7 24 GEP-2682 BKS86CE I,8V7 261 ESY-ARR02 201 ET-25092.2 124 FTTH-BOX-OUT-1 23 GES-2451 EKS880N1,8V2 261 ESY-BRS10 202 ET-25092.2 290 FTTH-BOX-OUT-2 23 GEU-0521 EKS88NS.1,8V2 261 ESY-GDE62FGR 206 ET-25092.3 290 FTTH-BOX-OUT-4 23 GEU-0522 EKS68NS.1,8V2 261 ESY-GDE62FGR 206 ET-25092.4 124 FTTH-BOX-OUT-5 23 GLC-H-MO-BO EK60SW.1 263 ESY-GDE82FGR 206 ET-25092.4 290 FTTH-BOX-OUT-7 23 GLC-H-MO-BO EK60SW.1, 5 263 ESY-GDE82FTS 206 ET-25092.5 290 FTTH-BOX-OUT-7 23 GLC-H-MO-BO EK60SW.1, 5 263 ESY-HAB426.GR 205 ET-25092.5 290 FTTH-DINRAIL-C 25 GSW-0607 EK60TSW.2 263	EK585.2	264	ESV-4782GR.P10S	200	ET-25092	290	FTTH-B0X-IN-5	24	GEP-2651	315
EKSBBGL RVZ 261	EK585.3	264	ESV-4782GR.P1P20S	200	ET-25092.1	124	FTTH-B0X-IN-6	24	GEP-2681	315
EKSBRGN 1,8V2	EK588BL.1,8V2	261	ESV-ANR01	201	ET-25092.1	290	FTTH-BOX-IN-7	24	GEP-2682	315
EKS88R1,8/2 261 ESY-BRS12 202 ET-25092.3 124 FTIH-BOX-OUT-3 23 GEU-0522 EKS88WS1,8/92 261 ESY-GDE6ZEFGR 206 ET-25092.3 290 FTIH-BOX-OUT-4 23 GEU-0522 EK600SW.1 263 ESY-GDE8ZEGR 206 ET-25092.4 124 FTIH-BOX-OUT-6 23 GLC-H-SMD-BO EK600SW.1 263 ESY-GDE8ZEFTS 206 ET-25092.5 124 FTIH-BOX-OUT-7 23 GLC-TA-MON-BO EK600SW.2 263 ESY-HAB426.6TS 205 ET-25092.5 209 FTIH-DINRAIL-ICA 25 GSW-0807 EK600SW.3 263 ESY-HAB426.6TS 205 ET-25092.6 124 FTIH-DINRAIL-ICA 25 GSW-0807 EK601SW.1 263 ESY-HAB428.0F 205 ET-25092.6 290 FTIH-DINRAIL-ICA 25 GSW-0807 EK601SW.1 263 ESY-HAB476.6 205 ET-25092.7 124 FTIH-DINRAIL-SC 25 GSW-1657 EK601SW.2 263	EK588GE.1,8V2	261	ESV-ANR02	201	ET-25092.2	124	FTTH-B0X-0UT-1	23	GES-2451	315
EKS8RT1,8V2 261 ESV-GDE62FGR 206 ET-25092.3 290 FTTH-B0X-OUT-4 23 GEU-0822 EKS88WS1,8V2 261 ESV-GDE62FTS 206 ET-25092.4 124 FTTH-B0X-OUT-5 23 GLC-LH-SMD-B0 EK600SW1,1s 263 ESV-GDE82FGR 206 ET-25092.4 290 FTTH-B0X-OUT-7 23 GLC-SW-MND-B0 EK600SW1,5 263 ESV-GDE62FTS 206 ET-25092.5 124 FTH-B0X-OUT-7 23 GLC-B0 EK600SW1,5 263 ESV-HAB426.GR 205 ET-25092.5 290 FTTH-DINRAIL-IC 25 GSW-6507 EK60SW3 263 ESV-HAB426.TS 205 ET-25092.6 124 FTTH-DINRAIL-IC 25 GSW-6507 EK60TSW1,5 263 ESV-HAB428.TS 205 ET-25092.6 290 FTTH-DINRAIL-IC 25 GSW-2457 EK60TSW1,1 263 ESV-HAB476.GR 205 ET-25092.7 124 FTTH-DINRAIL-IC 25 GSW-2457 EK60TSW1,2 263	EK588GN.1,8V2	261	ESV-BRS10	202	ET-25092.2	290	FTTH-BOX-OUT-2	23	GEU-0521	316
EKS8WS.1,8V2 261 ESV-GDE62FTS 206 ET-25092.4 124 FTTH-BOX-OUT-5 23 GLC-JK-MID-BO EK600SW.1 263 ESV-GDE82FGR 206 ET-25092.4 290 FTTH-BOX-OUT-6 23 GLC-JK-MID-BO EK600SW.1 263 ESV-GDE82FTS 206 ET-25092.5 124 FTTH-BOX-OUT-7 23 GLC-BO EK600SW.2 263 ESV-HAB426.GR 205 ET-25092.5 290 FTTH-DINRAIL-LC 25 GSW-0807 EK601SW.0.5 263 ESV-HAB428.GR 205 ET-25092.6 124 FTTH-DINRAIL-LCA 25 GSW-0807 EK601SW.0.5 263 ESV-HAB428.TS 205 ET-25092.7 124 FTTH-DINRAIL-CA 25 GSW-0457 EK601SW.1 263 ESV-HAB476.GR 205 ET-25092.7 290 FTTH-DINRAIL-CA 25 GSW-2457 EK601SW.1 263 ESV-HAB476.GR 205 ET-25092.7 290 FTTH-DR0P-2 29 GTL-2881 EK601SW.2 263	EK5880R.1,8V2	261	ESV-BRS12	202	ET-25092.3	124	FTTH-BOX-OUT-3	23	GEU-0522	316
EK600SW.1 263 ESV-GDE82F.GR 206 ET-25092.4 290 FTTH-BOX-OUT-6 23 GLC-SX-MMD-BO EK600SW.1,5 263 ESV-GDE82F.TS 206 ET-25092.5 124 FTTH-BOX-OUT-7 23 GLC-T-BO EK600SW.2 263 ESV-HAB426.GR 205 ET-25092.5 290 FTTH-DINRAIL-LC 25 GSW-0507 EK601SW.0,5 263 ESV-HAB428.GR 205 ET-25092.6 290 FTTH-DINRAIL-LCA 25 GSW-0507 EK601SW.0,5 263 ESV-HAB428.GR 205 ET-25092.6 290 FTTH-DINRAIL-LCA 25 GSW-0507 EK601SW.1 263 ESV-HAB476.GR 205 ET-25092.7 124 FTTH-DINRAIL-LCA 25 GSW-2457 EK601SW.2 263 ESV-HAB476.TS 205 ET-25092.7 124 FTTH-DINRAIL-LCA 25 GSW-2457 EK601SW.2 263 ESV-HAB476.TS 205 ET-25092.7 290 FTTH-DINRAIL-LCA 25 GSW-2457 EK601SW.1 263 <td>EK588RT.1,8V2</td> <td> 261</td> <td>ESV-GDE62F.GR</td> <td>206</td> <td>ET-25092.3</td> <td>290</td> <td>FTTH-B0X-0UT-4</td> <td>23</td> <td>GEU-0822</td> <td>316</td>	EK588RT.1,8V2	261	ESV-GDE62F.GR	206	ET-25092.3	290	FTTH-B0X-0UT-4	23	GEU-0822	316
EK60SW1,5 263 ESV-GDE82FTS 206 ET-25092.5 124 FTTH-B0X-OUT-7 23 GLC-T-B0 EK60OSW2 263 ESV-HAB426.GR 205 ET-25092.5 290 FTTH-DINRAIL-IC 25 GSW-0507 EK60SW3 263 ESV-HAB426.TS 205 ET-25092.6 124 FTTH-DINRAIL-IC 25 GSW-0807 EK60TSW0,5 263 ESV-HAB428.GR 205 ET-25092.6 290 FTTH-DINRAIL-IC 25 GSW-0807 EK60TSW1,1 263 ESV-HAB428.TS 205 ET-25092.7 124 FTTH-DINRAIL-ICA 25 GSW-2457 EK60TSW1,5 263 ESV-HAB478.GR 205 ET-25092.7 290 FTTH-BROP-2 29 GTL-2881 EK60TSW2 263 ESV-HAB478.GR 205 ET-25092.8 124 FTTH-DROP-2 69 GTL-2881 EK60TSW2 263 ESV-HAB478.TS 205 ET-25092.8 129 FTTH-DROP-2 69 GVT-2010 EK60TSW3 263 ESV-HAB478.TS </td <td></td>										
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EK601SW.0,5 263 ESV-HAB428.GR 205 ET-25092.6 290 FTTH-DINRAIL-SC 25 GSW-1657 EK601SW.1 263 ESV-HAB476.GR 205 ET-25092.7 124 FTTH-DINRAIL-SCA 25 GSW-2457 EK601SW.1 263 ESV-HAB476.GR 205 ET-25092.7 290 FTTH-DROP-2 29 GTL-2881 EK601SW.2 263 ESV-HAB478.GR 205 ET-25092.8 124 FTTH-DROP-2 69 GTL-2882 EK601SW.2 263 ESV-HAB478.GR 205 ET-25092.8 290 FTTH-DROP-4 29 GVT-2010 EK601SW.2 263 ESV-HAB478.TS 205 ET-25111 118 FTTH-DROP-4 69 GVT-2011 EK607SW.1 263 ESV-MFH10 203 ET-25111 125 FTTH-DROP-5C-xx 28 GVT-2012 EK607SW.2 263 ESV-MFH2 203 ET-25131.W 125 FTTH-MODUL-LCAPC 20 H7540.1-x EK607SW.3 263 ESV-MFV4 <	EK600SW.2	263	ESV-HAB426.GR	205	ET-25092.5	290	FTTH-DINRAIL-LC	25	GSW-0507	316
EK601SW.1 263 ESV-HAB428.TS 205 ET-25092.7 124 FTTH-DINRAIL-SCA 25 GSW-2457 EK601SW.1,5 263 ESV-HAB476.GR 205 ET-25092.7 290 FTTH-DROP-2 29 GTL-2881 EK601SW.2 263 ESV-HAB476.TS 205 ET-25092.8 124 FTTH-DROP-2 69 GTL-2882 EK601SW.2 263 ESV-HAB478.GR 205 ET-25092.8 290 FTTH-DROP-4 29 GVT-2010 EK607SW.2 263 ESV-HAB478.TS 205 ET-25111 118 FTTH-DROP-4 69 GVT-2011 EK607SW.1 263 ESV-HRH10 203 ET-25111 125 FTTH-DROP-5C-xx 28 GVT-2012 EK607SW.2 263 ESV-MFH12 203 ET-25111K 125 FTTH-MODUL-LCAPC 20 H7540.12-x EK6010 255 ESV-MFV42 203 ET-25130.1V1 151 FTTH-MODUL-LCAPC 27 H7540.4-x EK6210.1 252 ESV-MPV47 <td< td=""><td>EK600SW.3</td><td> 263</td><td>ESV-HAB426.TS</td><td> 205</td><td>ET-25092.6</td><td>124</td><td>FTTH-DINRAIL-LCA</td><td>25</td><td>GSW-0807</td><td>316</td></td<>	EK600SW.3	263	ESV-HAB426.TS	205	ET-25092.6	124	FTTH-DINRAIL-LCA	25	GSW-0807	316
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02519.x		06672.x		08161.x	72	08322.x	72	08442.xADQ	
02531.x	84	06672.x0M3	74	08161.xADQ	73	08322.xADQ	73	08443.x	7
02561.x	77	06672.x0M4		08162.x	72	08322.xADQ0M3	73	08445.x	7
)2561.x		06674.x	74	08181.x		08322.x0M3	72	08446.x	
)3061.x		06674.x0M3		08182.x	72	08322.x0M4	72	08451.x	7
)3061.x		06674.x0M4		08183.x		08322Lxx0M3	71	08451.xADQ	
03303.2		06681.x		08190.x		08322Lxx0M4	71	08454.x	
)3304.2		06682.x		08190.x0M3		08325.x		08455.x	
)3305.2		06711.x		08190.x0M4		08325.xADQ		08460.x	
03307.2		06711.x0M3		08191.x		08325.xADQ0M3		08461.x	
)3307.2		06711.x0M4		08191.x0M3		08325.xADQ0M4		08463.x	
)3313.2		06712.x		08191.x0M4		08325.x0M3		08464.x	
)3323.2		06712.x0M3		08192.x		08325.x0M4		08465.x	
)3324.2		06712.x0M4		08192.x0M3		08331.x		08466.x	
)3325.2		06713.x		08192.x0M4		08332.x		08801.x	
)3326.2		06713.x0M3		08193.x0M3		08333.x		08801.xADQ	
)3326.20M5		06714.x	74	08193.x0M4	72	08334.x	72	08803.x	7
3333.2		06714.x0M3	74	08197.x		08341.x	72	08804.x	7
3481.2		06715.x		08198.x0M3		08341.xADQ0M3		08805.x	
)3482.2		06720.x	74	08198.x0M4	72	08341.x0M3	72	08807.x	7
3483.2	88	06720.x0M3	74	08201.x	72	08341.x0M4	72	08808.x	7
3483.20M5	88	06720.x0M4	74	08201.x0M3	72	08342.x	72	08809.x	7
3484.2	88	06721.x	74	08201.x0M4	72	08342.xADQ	73	08810.x	7
3491.2	88	06722.x	74	08211.x	72	08342.xADQ0M3	73	08811.x	7
3603.2		06751.x	74	08212.x	72	08342.x0M3		08811.xADQ	7
3623.2		06751.xOM3		08214.x		08342.x0M4		08814.x	7
3681.2		06751.x0M4		08221.x		08342Lxx0M3	71	08814.xADQ	
3685.2		06752.x		08221.xADQ0M3		08342Lxx0M4		08816.x	
3685.20M5		06752.x0M3		08221.x0M3		08344.x		08818.x	
3686.2		06752.x0M4		08221.x0M4		08344.xADQ		08820.x	
3686.20M5		06753.x		08223.x		08344.xADQ0M3		08821.x	
3687.2		06754.x		08223.xADQ		08344.x0M3		08821.xADQ	
6013.x		06754.xOM3		08223.xADQ0M3		08344.x0M4		08822.x	
6013.x		06755.x		08223.x0M3		08351.x		08824.x	
6023.x		06761.x		08223.x0M4		08352.x		08826.x	
6023.x6023.x		06771.x		08231.x		08360.x		08827.x	
6122.x		06771.xOM3		08241.x		08381.x		08828.x	
6122.x0M3		06771.x0M4		08241.xADQ0M3		08381.xADQ0M3		08828.xADQ	
6122.x0M4		06772.x		08241.xADQ0M4		08381.x0M3		08829.x	
6123.x		06772.x0M3		08241.x0M3		08381.x0M4		08829.xADQ	
6123.x0M3		06772.x0M4		08241.x0M4		08382.x		08830.x	
6131.x		06773.x		08242.x		08382.xADQ		08831.x	
06131.x0M3		06773.x0M3		08242.xADQ		08382.xADQ0M3		08831.xADQ	
6131.x0M4		06773.x0M4		08242.xADQ0M3		08382.x0M3		08832.x	
6141.x		06774.x		08242.x0M3		08382.x0M4		08832.xADQ	
6353.x		06774.x0M3		08242.x0M4		08382.x0M5		08833.x	
6353.x		06775.x		08251.x		08390.x		08834.x	
16363.x		06775.x0M3		08252.x		08390.xADQ		08835.x	
16363.x		06779.x		08281.x		08390.xADQ0M3		08840.x	
6413.x	77	06781.x		08283.x		08390.x0M3		08841.x	
16413.x	81	06890.x		08291.x		08390.x0M4	72	08842.x	7
6423.x	77	06891.x	74	08301.x	72	08391.x	72	08844.x	7
6423.x	81	06892.x	74	08301.x0M3	72	08391.xADQ	73	08845.x	7
6511.x	74	07013.x	77	08301.x0M4	72	08391.xADQ0M3	73	08852.x	7
6511.x0M3	74	07013.x	82	08301.x0M5	72	08391.x0M3	72	08855.x	7
6511.x0M4	74	07353.x	77	08302.x	72	08391.x0M4	72	09711.x	
6512.x	74	07353.x	82	08302.xADQ	73	08392.x	72	09711.xADQ	7
6512.x0M3	74	07413.x	77	08302.xADQ0M3	73	08392.xADQ	73	09711.xADQ0M3	7
6512.x0M4	74	07413.x	81	08302.x0M3	72	08392.xADQ0M3	73	09711.x0M3	7
6514.x	74	07413.xx-1.2	79	08302.x0M4	72	08392.x0M3	72	09711.x0M4	7
6521.x	74	07413FT.x	79	08303.x	72	08392.x0M4	72	09721.x	7
6522.x	74	08121.x	72	08303.xADQ	73	08393.x	72	09731.x	7
6523.x	74	08121.xADQ	73	08303.xADQ0M3	73	08393.xADQ	73	09731.xADQ	7
6531.x	74	08122.x	72	08303.x0M3	72	08393.xADQ0M3	73	09731.xADQ0M3	7
5531.x0M3		08122.xADQ		08303.x0M4		08393.x0M3		09731.x0M3	
5531.x0M4		08123.x		08303.x0M5		08393.x0M4		09731.x0M4	
5532.x		08123.xADQ		08303L1000M3		08416.x		09741.x	
5532.x0M3		08124.x		08303L1000M4		08417.x		09751.x	
532.x0M4		08125.x		08303L1200M3		08418.x		09751.xADQ	
534.x		08126.x		08303L1400M3		08421.x		09751.xADQ0M3	
534.x0M3		08131.x		08303L500M3		08421.xADQ		09751.x0M3	
5535.x		08131.xADQ		08303Lxx0M3		08422.x		09751.x0M4	
5541.x		08132.x		08303Lxx0M4		08428.x		09761.x	
				08307.x					
542.x		08132.xADQ				08430.x		09811.x	
545.x		08133.x		08307.xADQ		08430.xADQ		09811.x0M3	
5551.x		08133.xADQ		08307.xADQ0M3		08431.x		09811.x0M4	
5551.x0M3		08141.x		08307.x0M3		08432.x		09821.x	
5551.x0M4		08141.xADQ		08307.x0M4		08432.xADQ		09831.x	
6561.x		08143.x		08311.x		08435.x		09831.x0M3	
5562.x	74	08143.xADQ	73	08312.x	72	08438.x		09831.x0M4	7
6570.x	74	08144.x	72	08321.x	72	08439.x	72	09841.x	7
6671.x	74	08146.x	72	08321.xADQ0M3	73	08441.x	72	09851.x	7
6671.x0M3	74	08147.x	72	08321.x0M3	72	08441.xADQ	73	09851.x0M3	7
			72	08321.x0M4		08442.x		09851.x0M4	

Item	_	Item	_	Item	-	Item	_	Item	_
09861.x		PRO-4288TS.P2		PRO-PDU01.GR		PRO-TUR426SV.TS		VIEW-CLEAVER	
09871.x	74	PRO-4768GR.G1SV	185	PRO-PDU01.TS		PRO-TUR428G1.GR	187	VIEW-CRIMPTOOL	10
09871.x0M3	74	PRO-4780GR.0D		PRO-PDU02.TS	195	PRO-TUR428G1.TS	187	VIEW-CRIMPTOOL	10
09871.x0M4	74	PRO-4780GR.G1SV	185	PRO-PDU03.GR	195	PRO-TUR428P1.GR	187	VIEW-CRIMPTOOL	10
09872.x	74	PRO-4780TS.0D	186	PRO-PDU03.TS	195	PRO-TUR428P1.TS	187	VIEW-CRIMPTOOL	10
09872.x0M3	74	PRO-4780TS.P1	188	PRO-PRO18	196	PRO-TUR428P2.GR	187	VIEW-V11	10
09872.x0M4	74	PRO-4780TS.P1P2	188	PRO-PRO24	196	PRO-TUR428P2.TS	187	VIEW-V11	10
09873.x		PRO-4780TS.P2		PRO-PRO33		PRO-TUR428S1.GR		VIEW-V11	
09873.x0M3		PRO-4782GR.0D		PRO-PRO42		PRO-TUR428S1.TS		VIEW-V11	
09873.x0M4		PRO-4782GR.G1SV		PRO-PRO47		PRO-TUR428S2.GR		VIEW-WORKBENCH	
09881.x		PRO-4782TS.0D		PRO-ROL01		PRO-TUR428S2.TS		VIEW-WORKBENCH	
0FF-1266GR.V1RW		PRO-4782TS.P1		PRO-ROL026.GR		PRO-TUR428SV.GR		VIEW-WORKBENCH	
OFF-1266TS.V1RW		PRO-4782TS.P1P2		PRO-ROL028.GR		PRO-TUR428SV.TS		VIEW-WORKBENCH	
OFF-1566GR.V1RW		PRO-4782TS.P2		PRO-SGL06		PRO-VIB01		VIEW-WORKBENCH	
OFF-1566TS.V1RW		PRO-4788GR.G1SV		PRO-SGL08		PRO-VKM42.GR		VSB-A-GR	
OFF-1568GR.V1RW		PRO-ANR01		PRO-SGL10		PRO-VKM42.TS		VSB-A-GR	
OFF-1568TS.V1RW	208	PRO-ANR02	190	PRO-SGL12	235	PRO-VKM47.GR	197	VSB-A-GR	5
OFF-1866GR.V1RW	208	PRO-AUS01	196	PRO-SIB42.GR	197	PRO-VKM47.TS	197	VSB-A-GR	5
OFF-1866GR.V1RW-AK	215	PRO-AUS02	196	PRO-SIB42.TS	197	PRO-W420E.GR	187	VSB-A-GR	
OFF-1866TS.V1RW	208	PRO-CL1-4280TS.P1	189	PRO-SIB47.GR	197	PRO-W420E.TS	187	VSB-A-GR	6
OFF-1866TS.V1RW-AK	215	PRO-CL1-4288TS.P1	189	PRO-SIB47.TS	197	PRO-W422Z.GR	187	VSB-A-GR-WINKEL	
0FF-1868GR.V1RW		PRO-CL2-4280TS.P1		PRO-SOB06B.GR		PRO-W422Z.TS		VSB-A-SW	
OFF-1868TS.V1RW		PRO-CL2-4280TS.P2		PRO-SOB06B.TS		PRO-W426E.GR		VSB-A-SW	
OFF-1868TS.V1RW-AK		PRO-CL2-4288TS.P1		PRO-SOB06P.GR		PRO-W426E.TS		VSB-A-SW	
				PRO-SOBO6P.TS					
OFF-ARB01		PRO-CL3-4280TS.P1				PRO-W428E.GR		VSB-A-SW	
OFF-ARB66.CV		PRO-CL4-4280TS.P1		PRO-SOBO6V.GR		PRO-W428E.TS		VSB-A-SW	
OFF-ARB66.GR		PRO-CL4-4288TS.P1		PRO-SOB06V.TS		SB-FP-12SC-D-V-OM3		VSB-A-SW	
OFF-ARB66.TS		PRO-CPR06		PRO-SOB08B.GR		SB-FP-12SC-D-V-0M4		VSB-A-SW-WINKEL	
OFF-ARB68.CV		PRO-CPR08	196	PRO-SOB08B.TS	192	SB-FP-12SC-D-V-OS2	49	VSB-FP-12SC-D-H	
OFF-ARB68.GR		PRO-CPR10	196	PRO-SOB08P.GR	192	SB-FP-12SC-S-0M3	49	VSB-FP-12SC-D-V	
OFF-ARB68.TS		PRO-CPR12		PRO-SOB08P.TS		SB-FP-12SC-S-0M4		VSB-FP-12SC-S	
OFF-NIV01		PRO-DCH60B.GR		PRO-SOB08V.GR		SB-FP-12SC-S-0S2		VSB-FP-12ST-S	
OFF-NIV01		PRO-DCH60B.TS		PRO-SOBO8V.TS		SB-FP-24SC-D-V-0M3		VSB-FP-24SC-D-V	
OFF-ROL01		PRO-DCH62B.GR		PRO-SOB10B.GR		SB-FP-24SC-D-V-0M4		VSB-FP-24SC-S	
OFF-ROL01		PRO-DCH62B.TS		PRO-SOB10B.TS		SB-FP-24SC-D-V-OS2		VSB-FP-24ST	
POA-1000A		PRO-DCH66B.GR		PRO-SOB10P.GR		SB-FP-24SC-S-0M3		VSB-FP-6SC-D-H	
POI-2002	325	PRO-DCH66B.TS	190	PRO-SOB10P.TS		SB-FP-24SC-S-0M4	49	VSB-FP-6SC-D-V	
POS-3000	325	PRO-DCH68B.GR	190	PRO-SOB10V.GR	192	SB-FP-24SC-S-0S2	49	VSB-FP-SW-12SC-D-H 4	
PRO-1866GR.G1SV	185	PRO-DCH68B.TS	190	PRO-SOB10V.TS	192	SB-FP-6SC-D-V-0M3	49	VSB-FP-SW-12SC-D-V	
PRO-1868GR.G1SV	185	PRO-DCH80B.GR	190	PRO-SOB12B.GR	192	SB-FP-6SC-D-V-0M4	49	VSB-FP-SW-12SC-S	
PRO-1888GR.G1SV		PRO-DCH80B.TS		PRO-SOB12B.TS		SB-FP-6SC-D-V-0S2		VSB-FP-SW-12ST-S	
PRO-2460TS.P1		PRO-DCH82B.GR		PRO-SOB12P.GR		SB-FP-6SC-S-0M3		VSB-FP-SW-24SC-D-V	
PRO-2466GR.G1SV		PRO-DCH82B.TS		PRO-SOB12P.TS		SB-FP-6SC-S-0M4		VSB-FP-SW-24SC-S	
PRO-2468GR.G1SV		PRO-DCH86B.GR		PRO-SOB12V.GR		SB-FP-6SC-S-0S2		VSB-FP-SW-24ST	
PRO-2488GR.G1SV		PRO-DCH86B.TS		PRO-SOB12V.TS		SB-FP-S-12SC-D-V-OM3		VSB-FP-SW-6SC-D-H	
PRO-3360GR.G1SV	185	PRO-DCH88B.GR	190	PRO-SOE100F.GR	192	SB-FP-S-12SC-D-V-0M4		VSB-FP-SW-6SC-D-V	
PRO-3366GR.G1SV	185	PRO-DCH88B.TS	190	PRO-SOE100F.TS	192	SB-FP-S-12SC-D-V-0S2		WGB-1906GR.45	22
PRO-3368GR.G1SV	185	PRO-GLT06	235	PRO-SOE100N.GR	192	SB-FP-S-12SC-S-OM3	49	WGB-1906GR.60	22
PRO-3388GR.G1SV	185	PRO-GLT08	235	PRO-SOE100N.TS	192	SB-FP-S-12SC-S-0M4	49	WGB-1906TS.45	27
PRO-4210GR.SKL3,5		PRO-GLT10		PRO-S0E200F.GR		SB-FP-S-12SC-S-0S2		WGB-1906TS.60	
PRO-4260GR.0D		PRO-KIS60.GR		PRO-SOE200F.TS		SB-FP-S-24SC-D-V-OM3		WGB-1906WS.45	
PRO-4260GR.G1SV		PRO-KIS60.TS		PRO-SOE200N.GR		SB-FP-S-24SC-D-V-0M4		WGB-1906WS.60	
PRO-4260TS.0D		PRO-KIS80.GR		PRO-SOE200N.TS		SB-FP-S-24SC-D-V-OS2		WGB-1909GR.45	
PRO-4260TS.P1		PRO-KIS80.TS		PRO-SOK60PB.GR		SB-FP-S-24SC-S-0M3		WGB-1909GR.60	
PRO-4262GR.0D		PRO-KRI42B		PRO-SOK60PB.TS		SB-FP-S-24SC-S-0M4		WGB-1909TS.45	
PRO-4262TS.0D		PRO-KRI42G		PRO-SOK62PB.GR		SB-FP-S-24SC-S-0S2		WGB-1909TS.60	
PRO-4262TS.P1	188	PRO-KRI47B	194	PRO-SOK62PB.TS	191	SB-FP-S-6SC-D-V-0M3	49	WGB-1909WS.45	27
PRO-4266GR.0D	186	PRO-KRI47G		PRO-SOK66PB.GR		SB-FP-S-6SC-D-V-0M4		WGB-1909WS.60	
PRO-4266GR.G1SV		PRO-LFD02AT.GR		PRO-SOK66PB.TS		SB-FP-S-6SC-D-V-0S2		WGB-1912GR.45	
PRO-4266TS.0D		PRO-LFD02AT.TS		PRO-SOK68PB.GR		SB-FP-S-6SC-S-0M3		WGB-1912GR.60	
PRO-4268GR.0D		PRO-LFD02BT.GR		PRO-SOK68PB.TS		SB-FP-S-6SC-S-0M4		WGB-1912TS.45	
PRO-4268GR.G1SV		PRO-LFD02BT.TS		PRO-SOK80PB.GR		SB-FP-S-6SC-S-0S2		WGB-1912TS.60	
		PRO-LFD02B1.TS							
PRO-4268TS.0D				PRO-SOK80PB.TS		SC353501J1M30-BL		WGB-1912WS.45	
PRO-4280GR.0D		PRO-LFD04AT.TS		PRO-SOK82PB.GR		SC353501J2M30-BL		WGB-1912WS.60	
PRO-4280GR.G1S1		PRO-MFH06		PRO-SOK82PB.TS		SC353501J3M30-BL		WGB-1915GR.45	
PRO-4280GR.G1SV		PRO-MFH08		PRO-SOK86PB.GR		SC353501J5M24-BL		WGB-1915GR.60	
PRO-4280TS.0D	186	PRO-MFH10	196	PRO-SOK86PB.TS	191	SC353501J7M24-BL	333	WGB-1915TS.45	27
PRO-4280TS.P1	188	PRO-MFH12	196	PRO-SOK88PB.GR	191	SFP1000LX	332	WGB-1915TS.60	27
PRO-4280TS.P1P2		PRO-MOD01A.GR		PRO-SOK88PB.TS		SFP1000LX-HPARUBA		WGB-1915WS.45	
PRO-4280TS.P2		PRO-MODO1A.TS		PRO-SOK88PP.GR		SFP1000SX		WGB-1915WS.60	
PRO-4282GR.0D		PRO-MODOTA.13		PRO-SOK88PP.TS		SFP1000SX-HPARUBA		WX_AD_EF_MM2	
PRO-4282GR.G1SVPRO-4282GR.G1SV									
		PRO-MODOZA.TS		PRO-SWR428A.GR		SFP10GLR-10KM		WX_AD_SM2	
PRO-4282TS.0D		PRO-MODO3A.GR		PRO-TKS01		SFP-10G-LR-B0		WX_FX_INSP_KIT	
PRO-4282TS.P1		PRO-MODO3A.TS		PRO-TST06		SFP10GSR-300M		WX4500-FA-V2	
PRO-4282TS.P1P2		PRO-MODO4A.GR		PRO-TST08		SFP-10G-SR-B0		WX4500-FA-V2	
PRO-4282TS.P2	188	PRO-MODO4A.TS	190	PRO-TST10	196	STHD2-4-12A	36	WX4500-FA-V2	11
PRO-4286GR.0D	186	PRO-MOD05A.GR		PRO-TST12	196	STHD2-4-12H		WX4500-FA-V2	
PRO-4286GR.G1SV		PRO-MODO5A.TS		PRO-TUR426G1.GR		STHD2-6-12A		WX500	
PRO-4286TS.0D		PRO-MOP428		PRO-TUR426G1.TS		STHD2-6-12H		X0N30	
PRO-4288GR.0DPRO-4288GR.0D								XON1300.P	
		PRO-MPR24		PRO-TUR426P1.GR		STHD-COVER			
PRO-4288GR.G1S1		PRO-MPR33		PRO-TUR426P1.TS		STHD-COVER		X0N1300.S	
PRO-4288GR.G1SV		PRO-MPR42		PRO-TUR426S1.GR		VE-150L/R		X0N1300.SC	3
PRO-4288TS.0D	186	PRO-MPR47	196	PRO-TUR426S1.TS	187	VIEW5PR0	106		
TNU-420013.0D									

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PRODUCTION LOCATIONS

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- **■**SONNEBERG

LOGISTICS LOCATIONS

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