

PORTFOLIO  
ENGLISH

PASSIVES

ACCESSORIES



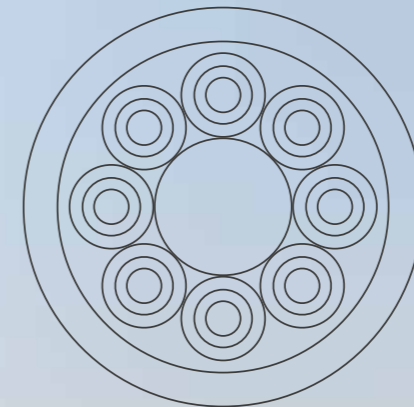
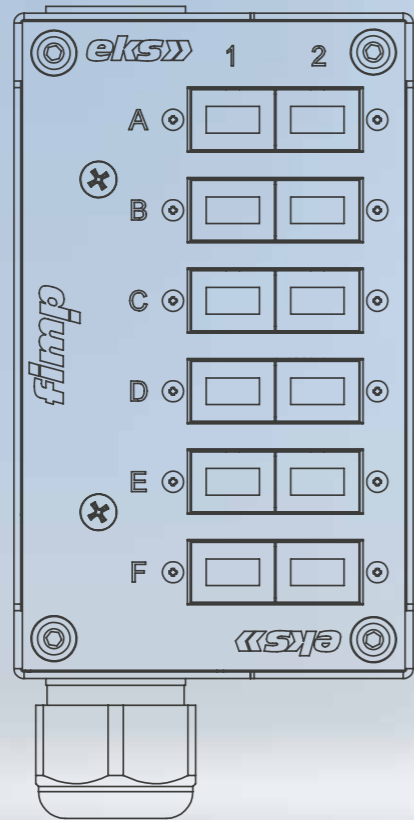
**eks**»  
fiber optic systems



# INTELLIGENT SOLUTIONS – engineered by eks

We are experts in industrial communication and we develop and produce high-performance electronic systems and modular devices that transmit data via fiber optics. Apart from that we offer customized engineering services on the „Best in class principle“.

As an independent, owner-managed family company, we have been standing for important customer needs such as performance, efficiency and security of investment for more than 80 years. Doing so we trust in our long-term expertise. At our headquarter in Germany we have been producing fiber optic systems since 1986 and not least because of that, we can call ourselves pioneers of modern communication.



## PASSIVES

FMP-XS .....	Industrial patch panel .....	08
FIMP-M .....	Industrial compact splicebox .....	10
FIMP-REG .....	Splicebox according to DIN 43880 .....	12
FIMP-S .....	Industrial compact splice box .....	14
FIMP-XL .....	Industrial compact splice box .....	16
FIMP-XL-Hybrid .....	Industrial compact splice box and patch panel .....	18
FIMP-XL-E .....	Industrial compact splice box .....	20
FIMP-XP .....	Industrial modular patch panel .....	22
PE-LIGHT .....	Passive/active component .....	24

## ACCESSORIES

Universal DIN rail carrier .....	26
Glass fiber: simplex, duplex- and breakout cables .....	28
Glass fiber: loose tube and special cables .....	30
Power supplies .....	32

# PASSIVES

We produce high-quality and robust splice boxes in different dimensions and types as well as for all common couplings. All splice boxes are ready for splicing and due to their flexible mounting options they guarantee an easy and time-saving installation. With FIMP-XL-Hybrid we offer a hybrid splice box that combines copper and glass fiber in one single device. It can not only be used for data transmission but also for energy supply and is suitable for the installation on spots that are difficult to access.

We refine standards and develop product and application specific solutions that meet our customers requirements.



FMP-XS

INDUSTRIAL  
PATCH PANEL

Fiber-MiniPatch XS is a modular patch field for DIN rail mounting and is suitable for various applications with:

- Different types of optical connectors on cable or systems
- Inflexible fiber optic cable, especially by connecting outdoor cable to fiber optic systems
- Different types of cable, e.g. indoor and outdoor cable in a switchboard cabinet
- Small and overcrowded cable conduits
- Unfavourable positioning of the fiber optic system in connection to the cable entry point



Different views of FMP-XS

Typ MM Polymer	2xSC/SC duplex	2xST/SC duplex	2xST/ST duplex	2xE2000 duplex Low Profile
Art.-No.	0670 00 23 23	0670 00 21 21	0670 00 20 20	0670 00 25 25
Typ MM Metall	2xSC/SC duplex	2xST/SC duplex	2xST/ST duplex	2xLC quattro
Art.-No.	0670 00 33 33	0670 00 32 32	0670 00 31 31	0670 00 24 24
Typ SM Polymer	2xSC/SC duplex	2xST/SC duplex		2xE2000 duplex Low Profile
Art.-No.	0670 00 70 70	0670 00 61 61		0670 00 65 65
Typ SM Metall	2xSC/SC duplex	2xST/SC duplex	2xST/ST duplex	2xLC quattro
Art.-No.	0670 00 63 63	0670 00 62 62	0670 00 60 60	0670 00 64 64
<b>Weight</b>	80 g			
<b>Dimensions</b>	H: 54 mm; W: 30 mm; D: 21 mm			
<b>Mounting</b>	35 mm DIN rail			



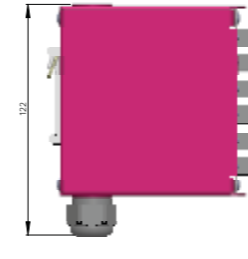
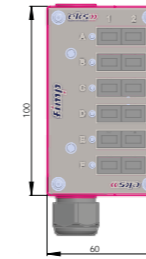
## FIMP-M

### INDUSTRIAL COMPACT SPLICEBOX

With 115 mm x 61 mm x 113 mm, our industrial splice box is by far smaller than comparable 19" solutions.

Its inner values are really convincing as well so that the installation is quite simple and done very fast. FIMP-M is ready for splicing and contains splice tray, couplings, pigtails and cable gland. Regarding different couplings, you can choose from SMA, ST, SC, LC, FC-PC, SC-RJ and E-2000. The front panel and the splice cassette can be removed for splicing and since the cassette is magnetizable, it can easily be fixed onto a splice unit. The cassette has got a hole for splice units with a bolt.

The powder coated stainless steel housing is also magnetizable so that the splice box can easily be affixed to another housing or to a switch cabinet in case of no different tray. Furthermore, FIMP has got a clip for DIN rail mounting (35mm) and optional a kit for wall fastening. Thus, there are space-saving and flexible solutions for mounting our FIMP.



Different colours of housing and couplings

Type MM	6xST Duplex 62MM	6xSC Duplex 62MM	3xLC Quattro 62MM	6xE2000 Duplex 62MM	6xST Duplex 50MM	6xSC Duplex 50MM	3xLC Quattro 50MM	6xE2000 compact 50MM
Article no.	06000 22196-00	06000 22396-00	06000 22493-00	06000 22596-00	06000 12196-00	06000 12396-00	06000 12493-00	06010 12796-00
Type SM	6xST Duplex	6xSC Duplex	6xSC Duplex 8° APC	3xLC Quattro	6xE2000 compact	6xE2000 duplex 8° APC		
Article no.	06000 36196-00	06000 36396-00	06000 38396-00	06000 36493-00	06010 36796-00	06010 38796-00		
Weight	450 g							
Dimensions	Height: 115 mm; Width: 61 mm; Depth: 113 mm							
Operating Temperature	-40 °C – +75 °C							
Humidity	10% – 95% relative, non condensing							
Housing	Stainless steel, powder coated							
Accessories	Article no.	Description						
	1060000001	Cable gland M20						
	1060000002	Nut M20						
	1060000013	Strain relief						
	1060000020	Front panel SC Duplex, not assembled						
	1060000021	Front panel SC-RJ, not assembled						
	1060000022	Splice holder						
	1060000023	Splice protection						
	1060000009	Countersunk screw M 2,5x6						
	1000000001	Screws						
	1060000002	Dual Mount Kit						
	1060000010	Lens tapping screw for fixing front panel, Philipps screw, 2,2 x 9,5 mm						



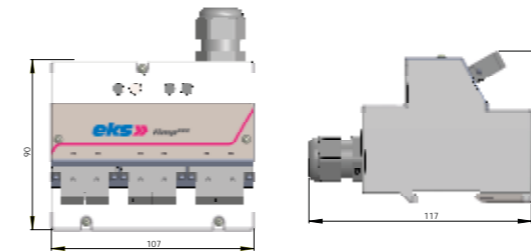
## FIMP-REG

### SPLICEBOX ACCORDING TO DIN 43880

The industrial splice box FIMP-REG according to DIN 43880 is by far smaller than comparable 19" solutions. Its inner values are really convincing as well so that the installation is quite simple and done very fast. FIMP-REG is ready for splicing and contains splice tray, couplings, pigtailed and cable gland. Regarding different couplings, you can choose from ST, SC and LC.

The front panel and the splice cassette can be removed for splicing and since the cassette is magnetizable, it can easily be fixed onto a splice unit. The cassette has a hole for splice units with a bolt.

The polyamide housing of FIMP-REG has a clip for DIN rail mounting (35mm). Thus, the user can flexibly mount the device in either switch cabinets or distribution boards.

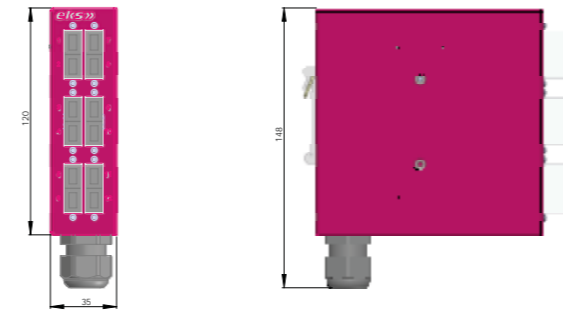


FIMP-REG

Type MM	3xST Duplex 62MM	3xSC Duplex 62MM	2xLC Quattro 62MM		3xST Duplex 50MM	3xSC Duplex 50MM	2xLC Quattro 50MM		
Article no.	06400 22193-02	06400 22393-02	06400 22492-02		06400 12193-02	06400 12393-02	06400 12492-02		
Type SM	3xST Duplex	3xSC Duplex	2xLC Quattro						
Article no.	06400 36193-02	06400 36393-02	06400 36492-02						
<b>Weight</b>	220 g								
<b>Dimensions</b>	Height: 90 mm; Width: 107 mm; Depth: 80 mm								
<b>Modules</b>	6								
<b>Operating Temperature</b>	-40 °C – +75 °C								
<b>Humidity</b>	10% – 95% relative, non condensing								
<b>Housing</b>	Polyamide, GRILON TS V0								
Accessories	Article no.	Description							
	1060000001	Cable gland M20							
	1060000002	Nut M20							
	1060000013	Strain relief							
	1060000022	Splice holder							
	1060000023	Splice protection							



FIMP-S



Type MM	6xST Duplex 62MM	6xSC Duplex 62MM	3xLC Quattro 62MM	6xE2000 Duplex 62MM	6xST Duplex 50MM	6xSC Duplex 50MM	3xLC Quattro 50MM	6xE2000 compact 50MM	
Article no.	06300 22196-00	06300 22396-00	06300 22493-00	06300 22596-00	06300 12196-00	06300 12396-00	06300 12493-00	06310 12796-00	
Type SM	6xST Duplex	6xSC Duplex	6xSC 8° APC Duplex	3xLC Quattro	6xE2000 compact	6xE2000 8° APC compact			
Article no.	06300 36196-00	06300 36396-00	06300 38396-00	06300 36493-00	06310 36796-00	06300 38796-00			
<b>Weight</b>	380 g								
<b>Dimensions</b>	Height: 120 mm; Width: 32 mm; Depth: 120 mm								
<b>Operating Temperature</b>	-40 °C - +75 °C								
<b>Humidity</b>	10% - 95% relative, non condensing								
<b>Housing</b>	Steel sheet, powder coated								
Accessories	Article no.	Description							
	1060000001	Cable gland M20							
	1060000002	Nut M20							
	1060000003	Strain relief							
	1060000022	Splice holder							
	1060000023	Splice protection							
	1060000008	Cable tie							
	1000000002	Dual Mount Kit							

INDUSTRIAL COMPACT SPLICEBOX

With 120mm x 32mm x 120mm, our industrial splice box FIMP-S is by far smaller than comparable 19" solutions. Its inner values are really convincing as well so that the installation is quite simple and done very fast. FIMP is ready for splicing and contains splice tray, couplings, pigtails and cable gland. Regarding different couplings, you can choose from ST, SC, LC and E-2000.

The powder coated stainless steel housing is also magnetizable so that the splice box can easily be affixed to another housing or to a switch cabinet in case of no different tray. Furthermore, FIMP has got a clip for DIN rail mounting (35mm) and optional a kit for wall fastening. Thus, there are space-saving and flexible solutions for mounting our FIMP.



## FIMP-XL

### INDUSTRIAL COMPACT SPLICEBOX

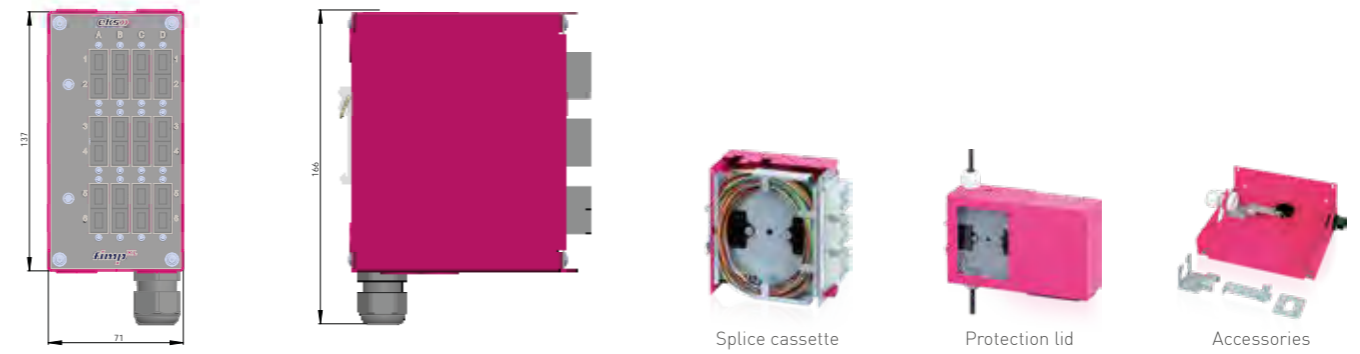
The inner values of the FIMP-XL are really convincing and the installation is quite simple and done very fast.

FIMPXL is ready for splicing and it already contains splice tray, couplings, pigtails and cable gland. Regarding different couplings, you can choose from SMA, ST, SC, LC, FC-PC, SC-RJ, E-2000 and E-2000 COMPACT. The front panel and the splice cassette can be removed for splicing and since the cassette is magnetizable, it can easily be fixed onto a splice unit. The cassette has got a hole for splice units with a bolt.

The powder coated stainless steel housing is also magnetizable so that the splice box can easily be affixed to another housing or to a switch cabinet in case of no different tray. Furthermore, FIMP-XL has got a clip for DIN rail mounting (35mm) and a kit for wall fastening. Thus, there are space-saving and flexible solutions for mounting our FIMP-XL.

Additionally fiber optic cables with MPO can be adapted by using FIMPO. And the optional cap protects your fiber and connectors.

The systems are built up modular. Customizing is possible by different assemblies, colors of the housing or logos.



Type MM	12xST Duplex 62MM	12xSC Duplex 62MM	6xLC Quattro 62MM	12xST Duplex 50MM	12xSC Duplex 50MM	6xLC Quattro 50MM			
Article no.	06100 2206 22069-00	06100 2236 22369-00	06100 2243 22439-00	06100 1216 12169-00	06100 1236 12369-00	06100 1246 00009-00			
Type SM	12xST Duplex SM	12xSC Duplex SM	12xSC 8° APC Duplex SM	6xLC Quattro SM					
Article no.	06100 3616 36169-00	06100 3706 37069-00	06100 3836 38369-00	06100 3646 00009-00					
Weight	860 g								
Dimensions	Height: 138 mm; Width: 72 mm; Depth: 128 mm								
Operating Temperature	-40 °C – +75 °C								
Humidity	10% – 95% relative, non condensing								
Housing	Stainless steel, powder coated								
Accessories	Article no.	Description							
	1060000001	Cable gland M20							
	1060000002	Nut M20							
	1060000003	Strain relief							
	1060000020	Front panel SC Duplex, not assembled							
	0610E40012	Front panel E-2000 COMPACT, not assembled							
	1060000022	Splice holder							
	1060000023	Splice protection							
	1060000008	Cable tie							
	1060000009	Countersunk screw M 2,5x6							
	1000000001	Screws							
	1000000002	Dual Mount Kit							
	1060000010	Lens tapping screw for fixing front panel,, Philipps screw, 2,2 x 9,5 mm							
	1060000006	Cable gland M25 with nut							



## FIMP-XL-HYBRID

### INDUSTRIAL COMPACT SPLICE BOX AND PATCH PANEL

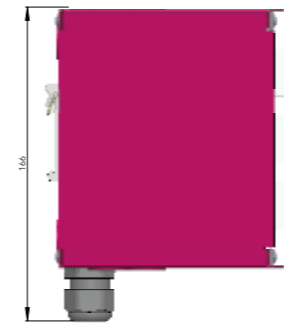
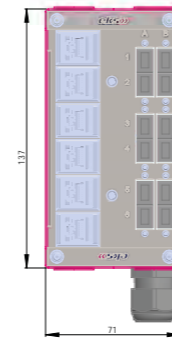
FIMP-XL Hybrid combines two different worlds: Glass fiber and copper cables. It provides a high level of flexibility for your application since it has optical connectors for up to 12 fibers and 6 RJ45 connectors for network cables.

FIMP-XL Hybrid is ready for splicing and it already contains splice tray, couplings, pigtailed and cable gland. Regarding different couplings, you can choose from SMA, ST, SC, LC, FC-PC, SC-RJ, E-2000 and E-2000 COMPACT. The front panel and the splice cassette can be removed for splicing and since the cassette is magnetizable, it can easily be fixed onto a splice unit. The cassette has got a hole for splice units with a bolt.

The powder coated stainless steel housing is also magnetizable so that the splice box can easily be affixed to another housing or to a switch cabinet in case of no different tray. Furthermore, FIMP-XL Hybrid has got a clip for DIN rail mounting (35mm) and a kit for wall fastening. Thus, there are space-saving and flexible solutions for mounting our FIMP-XL Hybrid.

Additionally fiber optic cables with MPO can be adapted by using FIMPO. And the optional cap protects your fiber and connectors.

The systems are built up modular. Customizing is possible by different assemblies, colors of the housing or logos.



Separable front panel

Type MM with 6 x RJ45 CAT 6	6xST Duplex 62MM	6xSC Duplex 62MM	3xLC Quattro 62MM	6xST Duplex 50MM	6xSC Duplex 50MM	3xLC Quattro 50MM			
Article no.	06200 0016 22169-00	06200 0016 22369-00	06200 0016 22439-00	06200 0016 12169-00	06200 0016 12369-00	06200 0016 12439-00			
Type SM with 6 x RJ45 CAT 6	6xST Duplex SM	6xSC Duplex SM	6xSC 8° APC Quattro Duplex SM	3xLC Quattro SM					
Article no.	06200 0016 36169-00	06200 0016 37069-00	06200 00163 38369-00	06200 0016 36439-00					

<b>Kupplungen RJ 45</b>	6 x RJ45, CAT 6a
<b>Weight</b>	860 g
<b>Dimensions</b>	Height: 138 mm; Width: 72 mm; Depth: 128 mm
<b>Operating Temperature</b>	-40 °C – +75 °C
<b>Humidity</b>	10% – 95% relative, non condensing
<b>Housing</b>	Stainless steel, powder coated

Accessories	Article no.	Description
	1060000001	Cable gland M20
	1060000002	Nut M20
	1060000013	Strain relief
	1060000022	Splice holder
	1060000023	Splice protection
	1060000008	Cable tie
	1060000009	Countersunk screw M 2,5x6
	1000000001	Screws
	1000000002	Dual Mount Kit
	1060000010	Lens tapping screw for Front panelbefestigung, Philipps screw, 2,2 x 9,5 mm
	1060000006	Cable gland M25 with nut



## FIMP-XL-E

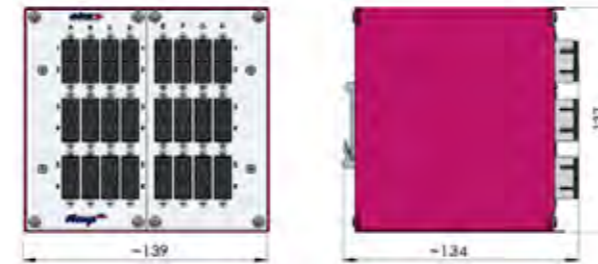
### INDUSTRIAL COMPACT SPLICEBOX AND PATCH PANEL

FIMP-XL-E is an intelligent system that consists of two housing shells and offers even more flexibility in your application.

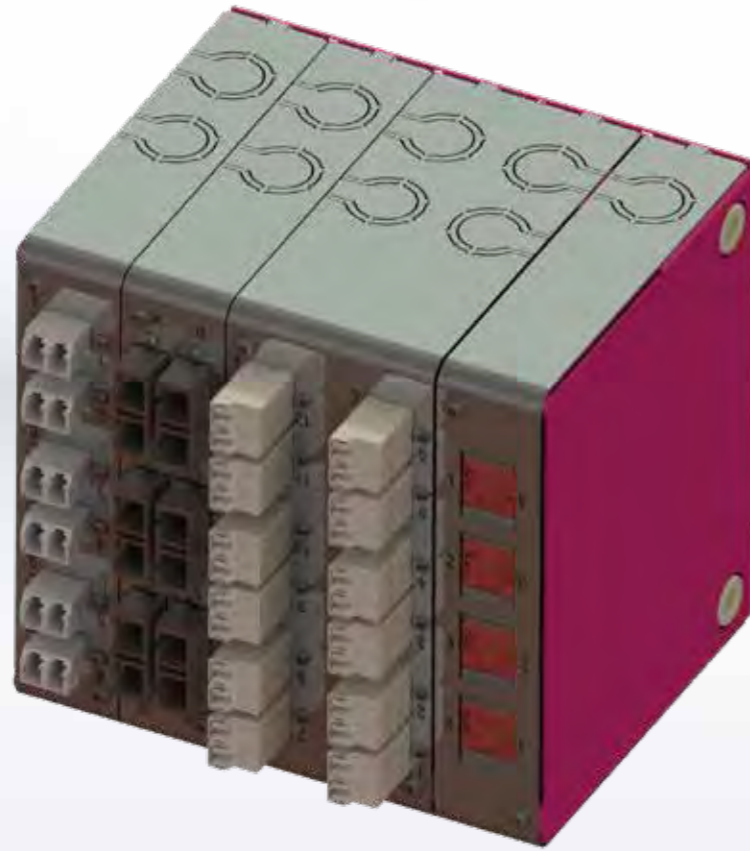
It is based on FIMP-XL which is suitable for 24 fibers. The two housing shells are connected with an additional piece in the middle. Thus there is more space and splicing becomes very easy. Consequently, FIMP-XL-E is suitable for 48 fibers.

The robust and powder coated housing is suitable for DIN rail mount.

Regarding coupling and fiber types, we offer a great variety. Please use the adjacent table to choose the required type.



Typ MM	24xST Duplex 62MM	24xSC Duplex 62MM	12xLC Quattro 62MM	24xST Duplex 50MM	24xSC Duplex 50MM	12xLC Quattro 50MM	24xE2000 compact 62MM	24xE2000 compact 50MM	
Art.-No.	061802 2112221 129-00	061802 2312223 129-00	061802 2412224 129-00	061801 2112121 129-00	061801 2312223 129-00	061801 2412224 129-00	061802 2712227 129-00	061802 2712127 129-00	
Typ SM	24xST Duplex SM	24xSC Duplex SM	24xSC 8° APC Duplex SM	12xLC Quattro SM	24xE2000 compact SM	24xE2000 compact 8° APC SM			
Art.-No.	061803 6112361 129-00	061803 7012370 129-00	061803 9012390 129-00	061803 6412364 129-00	061802 6712367 129-00	061802 8712387 129-00			
Weight	1500g								
Dimensions	H: 137 mm; W: 139 mm; D: 134 mm								
Operating temperature	-40 °C – +75 °C								
Humidity	10% – 95% relative, non condensing								
Housing	Stainless steel, powder coated								
Accessories	Art.-No.	Description							
	1060000001	Cable gland M20							
	1060000002	Nut M20							
	1060000013	Strain relief							
	1060000022	Splice holder							
	1060000023	Splice protection							
	1060000008	Cable tie							
	1060000009	Countersunk screw M 2,5x6							
	1000000001	Screws							
	1000000002	Dual Mount Kit							
	1060000010	Lens tapping screw for Front panelbefestigung, Philipps screw, 2,2 x 9,5 mm							
	1060000006	Cable gland M25 with nut							



# FIMP-XP

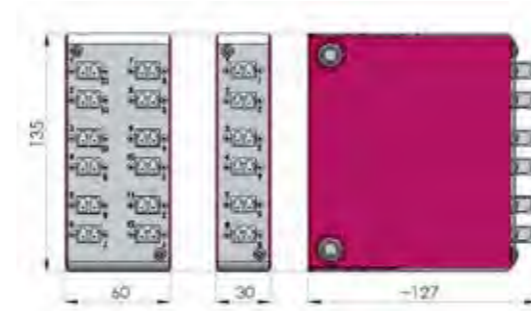
## INDUSTRIAL MODULAR PATCH PANEL

FIMP-XP is characterized by its industrial, modular design.

Both active and passive components can be combined with each other. For this purpose, different FO and copper modules are available.

FIMP-XP is a comprehensive series that offers a space-saving and economical possibility to combine active and passive devices in a network. Thus you can also integrate Ethernet Switches, for instance.

The system is suitable for DIN rail mount and can be used as a single unit or - together with other modules - as a compact device. Thus, it offers highest flexibility.



Basic housing	2x28	3x28	4x28	2x56	3x56	4x56	2x28+2x56	3x28+1x56	1x28+3x56
Art.-No.	06501 11333-00	06501 11133-00	06501 11113-00	06501 22333-00	06501 22233-00	06501 22223-00	06501 11223-00	06501 11123-00	06501 12223-00
MM 62,5/125µm	6x SC duplex 28er	6x ST duplex 28er	6xLC quattro 28er	6xE2000 compact 28er	12xSC duplex 56er	12xST quattro 56er	12xLC duplex 56er	12xE2000 compact 56er	
Art.-No. Modules 28 or 56	065022 2306-20	065022 2106-20	065022 2406-20	065022 2706-20	065032 2312-20	065032 2112-00	065032 2412-20	065032 2712-20	
MM 50/125µm	6x SC duplex 28er	6x ST duplex 28er	6xLC quattro 28er	6xE2000 compact 28er	12xSC duplex 56er	12xST quattro 56er	12xLC duplex 56er	12xE2000 compact 56er	
Art.-No. Modules 28 or 56	065021 2306-20	065021 2106-20	065021 2406-20	065021 2706-20	065031 2312-20	065031 2112-20	065031 2412-20	065031 2712-20	
SM 9/125µm	6x SC duplex 28er	6x ST duplex 28er	6xLC quattro 28er	6xE2000 compact 28er	12xSC duplex 56er	12xST quattro 56er	12xLC duplex 56er	12xE2000 compact 56er	
Art.-No. Modules 28 or 56	065023 7006-20	065023 6106-20	065023 6406-20	065023 6706-20	065033 7012-20	065033 6112-20	065033 6412-20	065033 8712-20	
RJ45 or Sub-D 9	4xRJ45 28er	2xSub-D 9 28er			6xSub-D 9 56er				
Art.-No. Modules 28 or 56	065020 0104-10	065020 0202-10			065030 0206-10				
Housing	stainless steel, powder coated								
Dimension [BxHxT]	28 module: 28 x 135 x 114 mm				56 module: 56 x 135 x 114 mm				
Operating temperature	-40 °C – +75 °C								
Humidity	10% – 95% relative, non condensing								



# PE-LIGHT

## PASSIVE / ACTIVE COMPONENT

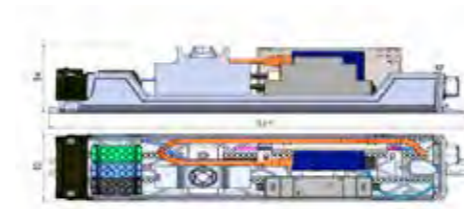
Die Geräte der pe-light Produktfamilie sind industrielle Komplettlösungen für den Einbau in Lichtmasten aus Stahl mit der folgenden Norm in der heute gültigen Fassung:

DIN EN 40-5 Anforderungen für Lichtmasten aus Stahl  
 DIN 49778 Lichtmaste, Gerüstesteg mit Schiebemuttern

Der Einbau des pe-light erfolgt in einem Laternenmast mit dem Innendurchmesser von 100 mm und einem Türausschnitt von 400x85 mm.

Auf der Rückseite der passiven Komponente, einer Spleißkassette, können Geräte der Serien e-light XS, e-light XS-G oder e-light XS-GP verbaut werden. Diese haben je einen Lichtwellenleiter- und einen Kupferport. Das e-light Gerät kann mit unterschiedlichsten Transceivern für Singlemode oder Multimode ausgestattet werden.

Zudem kann pe-light mit verschiedenen Komponenten wie Netzteilen oder Sicherungen bestückt werden.



Active and passive components for pe-light

Type Passive	
0680 0 0 09 1 02 1 00 00 0 0 200	Singlemode 09/125µm, 2 fibers, SC, splice cassette, 2xM20 cable gland
0680 0 0 50 1 02 1 00 00 0 0 200	Multimode 50/125µm, 2 fibers, SC, splice cassette, 2xM20 cable gland
0680 0 0 62 1 02 1 00 00 0 0 200	Multimode 62,5/125µm, 2 fibers, SC, splice cassette, 2xM20 cable gland

Type Passive and active, Fast Ethernet	
0681 1 1 09 1 02 1 03 03 0 0 200	1x100FX, 1x100TX, SM 09/125, 2 fibers, SC, splice cassette, fuse, power supply, terminals, 2xM20 cable gland
0681 1 1 50 1 02 1 03 03 0 0 200	1x100FX, 1x100TX, MM 50/125, 2 fibers, SC, splice cassette, fuse, power supply, terminals, 2xM20 cable gland
0681 1 1 62 1 02 1 03 03 0 0 200	1x100FX, 1x100TX, MM 62,5/125, 2 fibers, SC, splice cassette, fuse, power supply, terminals, 2xM20 cable gland

Type Passive and active, GigaBit Ethernet	
0683 1 1 09 1 02 1 03 03 0 0 200	1x1000FX, 1x1000TX, SM 09/125, 2 fibers, SC, splice cassette, fuse, power supply, terminals, 2xM20 cable gland
0683 1 1 50 1 02 1 03 03 0 0 200	1x1000FX, 1x1000TX, MM 50/125, 2 fibers, SC, splice cassette, fuse, power supply, terminals, 2xM20 cable gland
0683 1 1 62 1 02 1 03 03 0 0 200	1x1000FX, 1x1000TX, MM 62,5/125, 2 fibers, SC, splice cassette, fuse, power supply, terminals, 2xM20 cable gland

Type Passive and active, GigaBit Ethernet PoE	
0684 1 1 09 1 02 1 03 01 0 0 200	1x1000FX, 1x1000TX PoE, SM 09/125, 2 fibers, SC, splice cassette, fuse, power supply, terminals, 2xM20 cable gland
0684 1 1 50 1 02 1 03 01 0 0 200	1x1000FX, 1x1000TX PoE, MM 50/125, 2 fibers, SC, splice cassette, fuse, power supply, terminals, 2xM20 cable gland
0684 1 1 62 1 02 1 03 01 0 0 200	1x1000FX, 1x1000TX PoE, MM 62/125, 2 fibers, SC, splice cassette, fuse, power supply, terminals, 2xM20 cable gland

<b>Fuse</b>	e-light XS: 24 VDC 4A	e-light XS-G: 24 VDC 4A	e-light XS-GP: 54 VDC 6A
<b>Dimensions</b>	B: 82 mm, H: 84 mm, T: 370 mm		
<b>Operating temperature</b>	-40 °C – +60 °C		
<b>Humidity</b>	5-95% rH, non condensing		
<b>Housing</b>	Polycarbonate (PC GF 6-7) / IP54		
<b>Potential separation</b>	500 VDC		
<b>Power consumption</b>	e-light XS: 5,7W (25mA at 230 VAC)	e-light XS-G: 7W (30mA at 230 VAC)	e-light XS-GP: 7W (30mA at 230 VAC) plus PoE+ Device
<b>Cable bushing</b>	1xM16x1,5		
<b>Terminals</b>	1,5 mm² to 25 mm²		
<b>Supply voltage</b>	230 VAC / 50 Hz – 60 Hz		
<b>Mounting</b>	Hook mounting in lamp post		
<b>EMC</b>	EN 61000-6-2 / EN 55022 Class A		



# ACCESSORIES

As a manufacturer of high-quality electronic systems we offer additional accessories for our products. Our portfolio covers universal 19" carriers for vertical or horizontal mounting, various fiber optics such as simplex, duplex and breakout cables or loose tube cables with rodent protection as well as power supplies that allow an individual power adaption depending on the type and number of systems.

All accessories are tested and controlled comprehensively before delivery.





## RACK 19

### UNIVERSAL 19" DIN RAIL CARRIER

Rack 19" can be used for the mounting of a DIN rail in a horizontal or vertical way. Furthermore, it is suitable for wall mount. The DIN rail can be adjusted in depth. There are 3 different angles for 19" mount. They are used for adjusting the height and can be changed even if they are mounted.

Type	Universal 19" DIN rail carrier	
Article no.	0600E90050	
Dimensions	Height: 88,1 mm; Width: 482,6 mm; Depth: 210 mm	
Operating Temperature	-40 °C - +75 °C	
Humidity	10% - 95%, relative, non condensing	
Housing	Steel sheet, tinned	
Accessories	Article no.	Description
	0600E90051	3-HE-Mounting-Kit / Steel sheet, tinned
	0600E90052	4-HE-Mounting-Kit / Steel sheet, tinned
	0600E90053	5-HE-Mounting-Kit / Steel sheet, tinned



SIMPLEX, DUPLEX AND BREAKOUT CABLE

The cables can be used as patch cable, pigtails or for the connection of buildings. They have got a strain relief made of aramid yarn, a non-halogen outer coating (LSZH) and are suitable for direct assembly of connectors. Two simplex cables that are connected via a middle flange, are called „Zipcord“- or „Figure 8“-cable (easily separable). If higher stability and strength is required, two simplex cables can be assembled with an additional outer coating. These cables are called „Figure 0“ or „FlatTwin“.

1

Type	Description	Standards			Application
	IV(ZN)H1	IEC 60794-2 · IEC 60332-1-2, -3-22CAT.A · IEC 61034 IEC 60754-1, -2			Interior area
Cable structure	No of fibers	Cable core	Cable coating	Colour of coating	
	1	-	Non-halogen, FRNC	Depending on fiber	
Thermal characteristics	Transport / storage	Laying	Operation		
	-25 °C – +70 °C	-5 °C – +50 °C	-10 °C – +70 °C		
Mechanical characteristics	Min. bending radius static	Min. bending radius dynamic	Max. traction	Max. compressive strength	
	30 mm	60 mm	200 – 400 N	100 – 150 N/dm	

2

Type	Description	Standards			Application
	IV(ZN)H2	IEC 60794-2 · IEC 60332-1-2, -3-22CAT.A · IEC 61034 IEC 60754-1, -2			Interior area
Cable structure	No of fibers	Cable core	Cable coating	Colour of coating	
	2	-	Non-halogen, FRNC	Depending on fiber	
Thermal characteristics	Transport / storage	Laying	Operation		
	-25 °C – +70 °C	-5 °C – +50 °C	-10 °C – +70 °C		
Mechanical characteristics	Min. bending radius static	Min. bending radius dynamic	Max. traction	Max. compressive strength	
	30 mm	60 mm	400 – 600 N	200 – 600 N/dm	

3

Type	Description	Standards			Application
	IV(ZN)HH2	IEC 60794-2 · IEC 60332-1-2, -3-22CAT.A · IEC 61034 IEC 60754-1, -2			Interior area
Cable structure	No of fibers	Cable core	Cable coating	Colour of coating	
	2	-	Non-halogen, FRNC	Depending on fiber	
Thermal characteristics	Transport / storage	Laying	Operation		
	-25 °C – +70 °C	-5 °C – +50 °C	-10 °C – +70 °C		
Mechanical characteristics	Min. bending radius static	Min. bending radius dynamic	Max. traction	Max. compressive strength	
	35 mm	65 mm	400 – 600 N	400 – 600 N/dm	

4

Type	Description	Standards			Application
	IV(ZN)HH[N]	IEC 60794-2 · IEC 60332-1-2, -3-22CAT.A · IEC 61034 IEC 60754-1, -2			Interior area
Cable structure	No of fibers	Cable core	Cable coating	Colour of coating	
	4 - 18	Verseilte Einzelemente	Non-halogen, FRNC	Depending on fiber	
Thermal characteristics	Transport / storage	Laying	Operation		
	-25 °C – +70 °C	-5 °C – +50 °C	-10 °C – +70 °C		
Mechanical characteristics	Min. bending radius static	Min. bending radius dynamic	Max. traction	Max. compressive strength	
	60 – 130 mm	85 – 200 mm	600 – 1200 N	800 N/dm	



A/I-DQ(ZN)BH<sup>1</sup>



A/I-DQ(ZN)BH<sup>2</sup>



A-DQ(ZN)B2Y<sup>3</sup>



A-DQ(ZN)B2Y<sup>4</sup>



A-DQ(ZN)(SR)2Y<sup>5</sup>

LOOSE TUBE  
CABLE WITH  
RODENT  
PROTECTION

The cables are used as metal free cable for direct laying into the ground (A-DQ) or in tubes, the variant A/I-DQ (LSZH) can also be used in indoor areas with high security requirements in case of fire. The structure is made of one central loose tube (2 - 24 fibers) or strand cable in case of a higher no. of fibers., a source material coated glass yarn covering as strain relief and rodent protection. The PE coating's colour is black or in case of LSZH it is blue and it has type and length labelling.

1

Type	Description	Standards		Application
	A/I-DQ(ZN)BH	IEC/EN 60793, 60794-1 · EN 50173 · ISO/IEC 11801		Innen-, Außenbereich
Cable structure	No of fibers	Cable core	Cable coating	Colour of coating
	4 - 12	-	Non-halogen, FRNC	Blau
Thermal characteristics	Transport / storage	Laying	Operation	
	-40 °C - +70 °C	-5 °C - +50 °C	-20 °C - +70 °C	
Mechanical characteristics	Min. bending radius static	Min. bending radius dynamic	Max. traction	Max. compressive strength
	60 mm	-	1500 N	150 N/dm

2

Type	Description	Standards		Application
	A/I-DQ(ZN)BH	IEC/EN 60793, 60794-1 · EN 50173 · ISO/IEC 11801		Innen-, Außenbereich
Cable structure	No of fibers	Cable core	Cable coating	Colour of coating
	24 - 48	-	Non-halogen, FRNC	Blau
Thermal characteristics	Transport / storage	Laying	Operation	
	-40 °C - +70 °C	-5 °C - +50 °C	-20 °C - +70 °C	
Mechanical characteristics	Min. bending radius static	Min. bending radius dynamic	Max. traction	Max. compressive strength
	60 mm	-	1800 - 2200 N	150 N/dm

3

Type	Description	Standards		Application
	A-DQ(ZN)B2Y	IEC/EN 60793, 60794-1 · EN 50173 · ISO/IEC 11801		Außenbereich
Cable structure	No of fibers	Cable core	Cable coating	Colour of coating
	4 - 12	-	Polyethylen	Schwarz
Thermal characteristics	Transport / storage	Laying	Operation	
	-40 °C - +70 °C	-5 °C - +50 °C	-20 °C - +60 °C	
Mechanical characteristics	Min. bending radius static	Min. bending radius dynamic	Max. traction	Max. compressive strength
	60 mm	-	1500 N	150 N/dm

4

Type	Description	Standards		Application
	A-DQ(ZN)B2Y	IEC/EN 60793, 60794-1 · EN 50173 · ISO/IEC 11801		Außenbereich
Cable structure	No of fibers	Cable core	Cable coating	Colour of coating
	24 - 48	-	Polyethylen	Schwarz
Thermal characteristics	Transport / storage	Laying	Operation	
	-40 °C - +70 °C	-5 °C - +50 °C	-20 °C - +60 °C	
Mechanical characteristics	Min. bending radius static	Min. bending radius dynamic	Max. traction	Max. compressive strength
	60 mm	-	1500 - 2000 N	150 N/dm

5

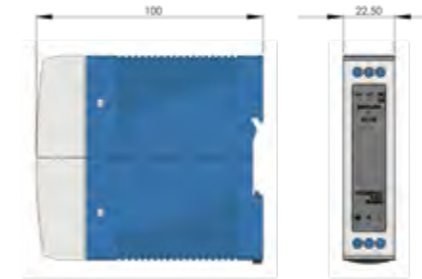
Type	Description	Standards		Application
	A-DQ(ZN)(SR)2Y	IEC/EN 60793, 60794-1 · EN 50173 · ISO/IEC 11801		Außenbereich
Cable structure	No of fibers	Cable core	Cable coating	Colour of coating
	24 - 48	-	HD-Polyethylen	Schwarz
Thermal characteristics	Transport / storage	Laying	Operation	
	-40 °C - +70 °C	-5 °C - +50 °C	-20 °C - +70 °C	
Mechanical characteristics	Min. bending radius static	Min. bending radius dynamic	Max. traction	Max. compressive strength
	150 mm	-	1200 N	500 N/dm



## EKS-IRP

### POWER SUPPLIES

EKS-IRP power supplies have got a wide input voltage range of 85 - 264 VAC and a stable output voltage of 24 VDC. Different output currents allow an individual power adaption to the type and the number of systems used. The power supplies have a robust polyamide housing and can be mounted onto a DIN rail.



Type	EKS-IRP-10	EKS-IRP-20	EKS-IRP-40
Article no.	22201535	22201536	22201537
Input	Voltage	85-264 VAC	85-264 VAC
	Frequency	50-60 Hz	50-60 Hz
	Power	0,33 A	0,55 A
Output	Voltage	24 VDC	24 VDC
	Power	0,42 A	1,0 A
Dimensions	22,5 x 90 x 100 mm	22,5 x 90 x 100 mm	40 x 90 x 100 mm
Operating Temperature	-20 °C - +70 °C		
Humidity	20 % - 90 %, relative, non condensing		
Housing	Polyamide		

# OUR PROMISE:



## SO easy»»

We would like to make it as simple as possible for you: The cooperation with our customers is characterized by fast response times, direct communication and minimum bureaucracy. Our general agreements are fair and our support prompt. We are open for new developments and react flexibly to your needs.

## SO clever»»

We deliver efficient solutions from one source - from active and passive components to the corresponding accessories and customized services. Comprehensive testing and simulation saves time and money. Our clear structure for prices and discounts makes business with us transparent.

## SO safe»»

With FO technology and exclusive customizing we offer a high degree of security. Since for us security means more than product security. It also covers all subsequent processes.

## SO quick»»

Our customers benefit from our fast production processes. They are continuously improved and well documented. We also require these standards from our suppliers. This combination of performance and efficiency is the only way we can ensure and maintain short delivery periods.



# MAKING LIFE SAFER

Fast networks and technology enrich us every day – in both private and working life. For that, reliable function and permanent availability are indispensable. With the best products for intelligent performance, we ensure every day that data is safely transmitted, infrastructures work faultlessly and that our workplaces remain competitive.

Our innovation capability significantly contribute to making life safer. Day after day. In every single moment.

V.1.5 Subject to technical alterations. Product design can differ from original design.  
© Pictures pages 30-33: abatec GmbH, Leoni Fiber Optics GmbH



**Headquarters**

eks Engel FOS GmbH & Co. KG  
Schützenstrasse 2-4  
57482 Wenden-Hillmicke, Germany

Phone +49 2762 9313-600  
Fax +49 2762 9313-7906  
info@eks-engel.de  
www.eks-engel.de

**North America**

eks Fiber Optics LP  
150 N Michigan Ave, Suite 2818  
Chicago, IL 60601, USA

Phone +1 (312) 291-4482  
info@eks-fo.com  
www.eks-fo.com

**Distributor**

