

# Passive components

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# Industrial Ethernet – passive components

## Connection technology from Weidmüller

You need only one supplier for connecting and linking your devices: Weidmüller – one-stop shopping for all your connection technology needs.

## Here are just a few of the relevant standards

IEC 61076-3-106/117: this standard describes the design and construction of plug and flange housings for RJ45 in IP67. IEC 61076-2-101: this standard describes the design and construction of M12, D-coded connectors for Ethernet

## Passive components

- RJ45 and M12 connecting elements
- Copper cables
- Fibre-optic cable (FO)

## Transmission characteristics:

- Cat.5/class D: max. 100 MHz, for 100BASE-TX
- Cat.6/class E: max. 250 MHz, for 1GBASE-T
- Cat.6A/class E<sub>A</sub>: max. 500 MHz, for 10GBASE-T
- Cat.7/class F: max. 600 MHz, for 10GBASE-TX

## For offices ...



## ... and industrial applications



## Standards

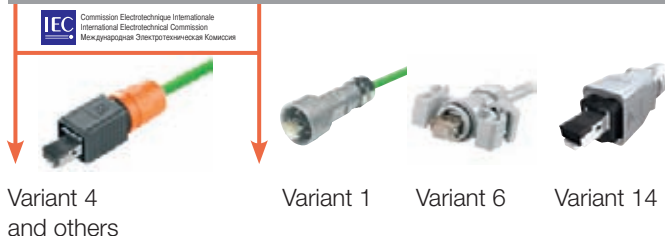
- ISO/IEC 11801
- ISO/IEC 60603-7 (RJ 45)

## Standards

- Production floors
- IEC 24702

- Production units
- ISO/IEC 61918 (CD-V)
  - IEC 61784-5

## Plug-in connectors to IEC 61076-3-106



## Structured cabling

Take account of the directives for structured cabling according to DIN EN 50173/50174 during planning and installation work.

# Industrial Ethernet exists in a variety of different industrial environments.

There, its advantages are well known:

- the ability to interconnect multiple networks that are often separated by great distances
- Teleservicing
- Teleservices
- Continuity within the corporate network

C



## Machine construction

- Monitoring of operational characteristics
- Teleservicing



## Automotive construction

- Networking machinery and plants
- Interfacing to the corporate network



## Traffic engineering

- Control of individual applications
- Passenger information systems



## Process industry

- Networking individual process steps
- Interfacing to the process management level

# Best service

## Practical Guidelines for Industrial Ethernet

Are you an electrical engineer, installer or contractor in search of assistance, tricks and checklists for working on Industrial Ethernet? Our practical guidelines provide detailed descriptions for the installation and implementation of industrial networks.

- You'll find helpful tips and recommendations for selecting the proper components and for documenting your network
- Real-world practical advice for assembling copper and fibre-optic cables
- Pointers to the current standards and regulations in the industrial networking sector
- Simple network implementation, including tips for operation and security
- Maintenance tips for preventing crashes
- ...and much more!

Please ask your personal sales representative about these practical guidelines.



### Industrial Ethernet Handbook

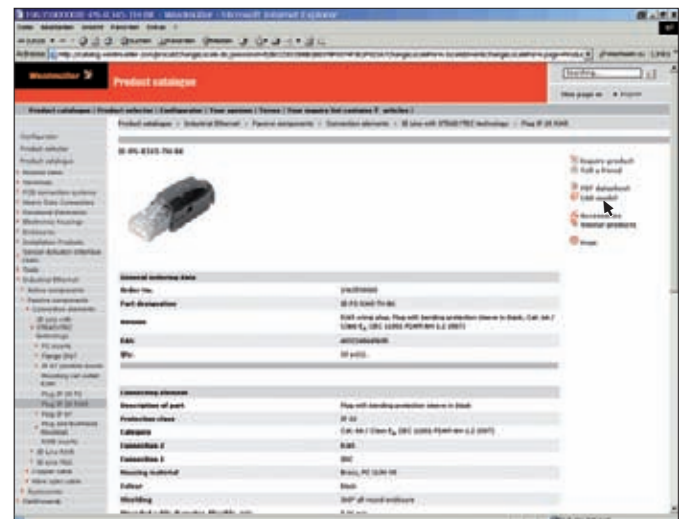
- Design and planning
- Installation
- Commissioning

**Weidmüller**

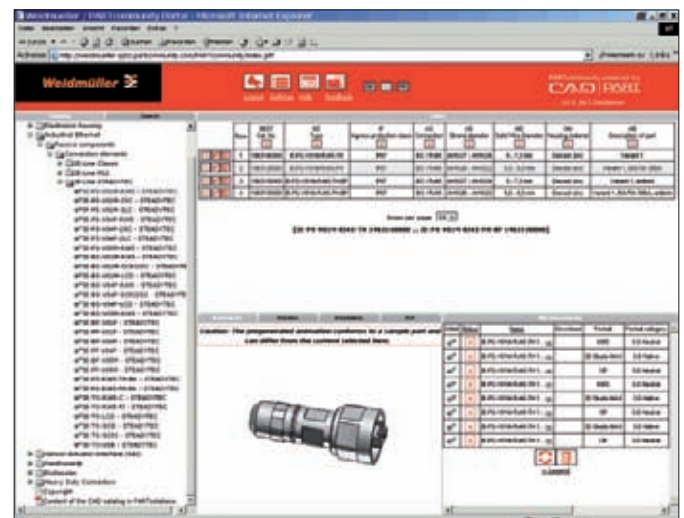
## 3-D data

Do you require 3-D models of your components so you can design them into your application? And precisely in your own CAD format?

The parts are located in our Online Catalogue with a direct link to the Partserver ([www.partserver.com](http://www.partserver.com)). You can then input your product, CAD format and e-mail address. And you will quickly receive an e-mail with your 3-D model as an attachment.



You can also login at the web site <http://Weidmüller.sp02.partcommunity.com/> to view and download 3-D files.





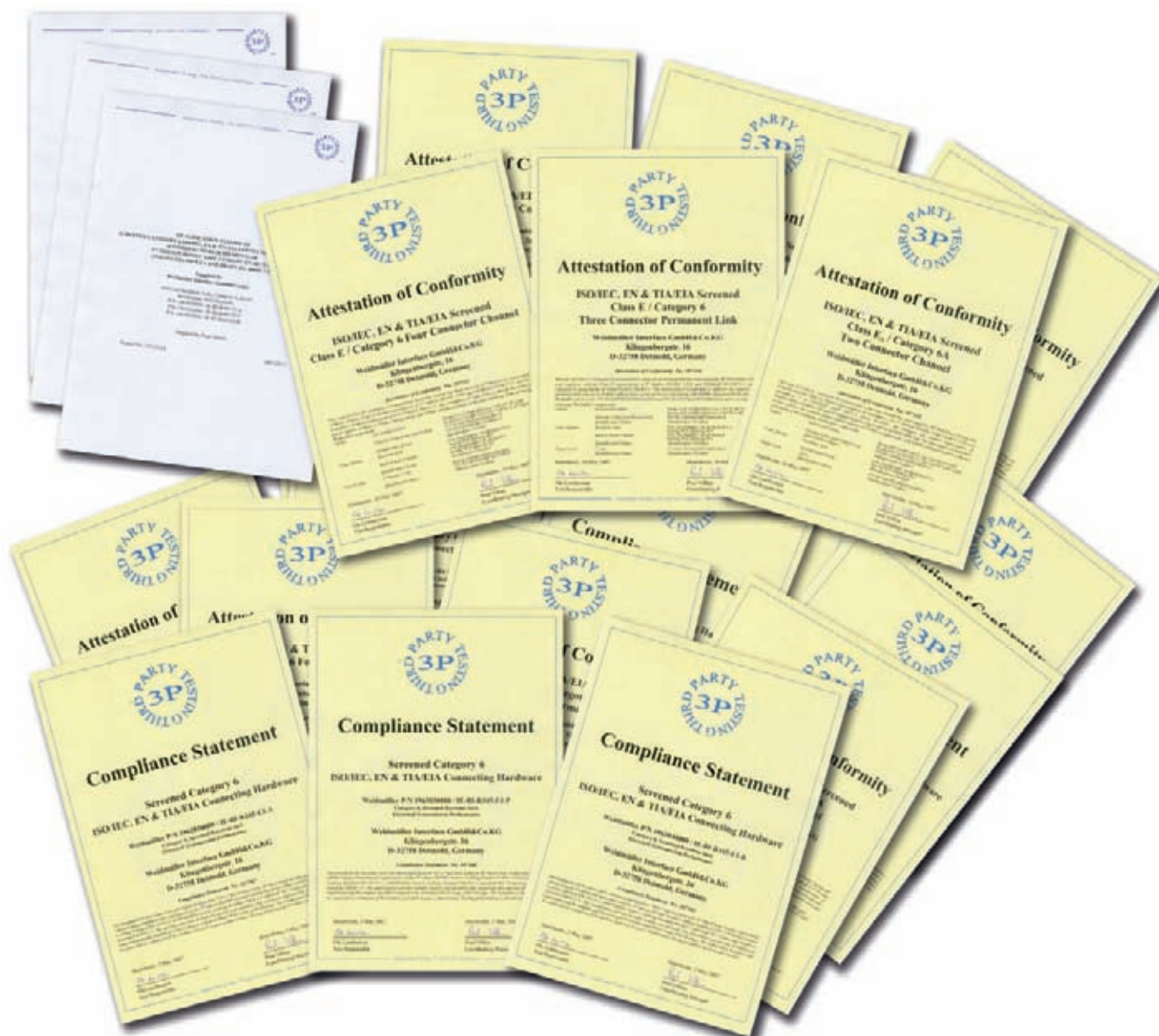
## ... and what more can Weidmüller do for you?

### Certificates

Do you want to prove to your customer that you have installed only the best components? The GHMT (Society for High-frequency Measuring Technology) and the 3P (Third Party Testing) are independent testing institutes and recognized specialists for industrial cabling. The institutes support the industry by means of test certifications for communication cables, connection hardware, patch cords and permanent links and channels.

Their other primary functions are brand testing, safety testing, quality analyses, and error analyses.

By means of these proven certificates, we can assure you of our high quality and performance expectations. Please ask your personal sales partner if you would like to see a copy of our certifications. You can also download the individual certificates from our online catalogue.



# The Weidmüller IE-LINE plug-in connectors with **STEADYTEC**® technology



**STEADYTEC**® – this name stands for the future of connection technology in the field of data and signal transmissions. Established by the leading names in this branch of industry, the technology brand **STEADYTEC**® forms the foundation for reliable, application-centric and conforming solutions – for offices and harsh industrial conditions.

**The objective:** The development of reliable plug-in connector technologies for industrial applications. Technologies that satisfy the highest customer demands and hence enable new, professional and consistent solutions.

**The result:** An extremely reliable, extraordinarily practical, flexible and especially efficient plug-in connector system for office and industrial applications. Using products whose characteristics reflect perfectly the values from which they originated:

- fast
- reliable
- solution-based
- simple

## The Ethernet connector system: clever – flexible – modular

Connectors for modern industrial applications need to be designed in such a way that they simplify processes and cope with faster data transmission. Weidmüller's Ethernet connectors keep you a step ahead. These products are not only ready for 10 gigabit, they are also standardized for IEC 61076-3-106 and IEC 61076-3-117. In addition, the connector variants 4 (Ethernet/TCP/IP), variants 5 and 1 (Ethernet IP) and variant 14 (PROFINET/AIDA) which are named in these standards are all specified as mandatory in the standards covering generic cabling systems for industrial premises: ISO/IEC 24702, IEC 61918 (Automation Island), as well as for Fieldbus installations IEC 61784-5. What's more, you have a unique choice of versions made of plastic or metal as well as inserts for copper and fibre-optic cabling.

All of the connectors are designed for ease of use and for quick on-site assembly. They are also modular and are tailored to suit your application.



**STEADYTEC**® is a registered trademark of the Weidmüller, BTR NETCOM and Telegärtner companies.



### Tool-less assembly and powerful connections: the RJ45 gigabit connector!

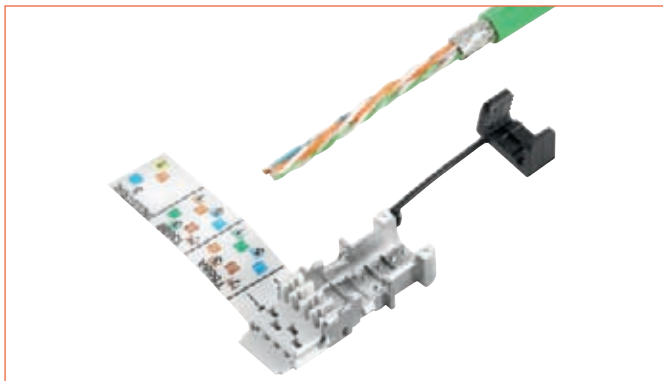
You can now securely plug the connector you need directly into your machinery with very little effort – and without a single tool! The 10-gigabit connector, with IDC-connection, was developed to provide quick, simple, secure and, most importantly, tool-free wiring.

In addition, zinc die-casting makes the connector extra robust and therefore suitable for industrial applications. It is also fitted with a protected locking clip for tough industrial applications. Weidmüller's IE product line fulfils the requirements for 10 GBit Ethernet, according to IEEE 802.3an, up to 500 MHz.

#### **STEADYTEC®: Systematic benefits**

- **Cat.6A 10GBit System Class EA**
- **Assembly without tools in the field**
- **Countless variations thanks to highly diverse combinations of inserts**
- **Unrestricted compatibility because standardised to IEC 61076-3-106**
- **Reliable and long-lasting thanks to diecast zinc**
- **Suitable for industry thanks to IP 67 class of protection**
- **Simple ordering procedure and low storage costs thanks to Weidmüller's modular system**

C



1. Strip sheath cladding and shorten shield to 5 mm



2. Prepare wires and shorten



3. Snap together the two pluggable elements



4. Finished

# Connector overview

## Connectors for copper cable



**RJ45 (IP20)** acc. to IEC 60603-7

For use in office environments, in floor and building distributors, or in the electrical cabinet

The benefits:

- For high-speed transmissions, up to 10-gigabit Ethernet
- Standardized internationally
- Can be used overall
- Sturdy version suitable for industrial applications



**RJ45 (IP67)** acc. to IEC 61076-3-106

For connections between electrical cabinets and for use in the field for gigabit applications

The benefits:

- For high-speed transmissions, up to 10-gigabit Ethernet
- IP67 protection
- Can be assembled in the field



**M12, D-coded** acc. to IEC 61076-2-101

For use near machinery or where a high degree of vibration resistance is required

The benefits:

- Compact design
- IP67 protection
- Can be used with extrusion mould or assembled in the field
- particularly resistant to vibrations

## Connector for fibre-optic cable



**SC duplex** acc. to IEC 61754-4

For use in building distributors, electrical cabinets, together with protective housing it can also be used in the field or for connecting our active components

The benefits:

- For multi-mode, single-mode or POF



**SC-RJ** acc. to IEC 61754-24

For use in building distributors, electrical cabinets, or together with protective housing it can also be used in the field in compliance with PROFINET directive

The benefits:

- For multi-mode, single-mode and POF



**LC-Duplex** acc. to IEC 61754-20

For use in building distributors, electrical cabinets, or together with protective housing it can also be used in the field in compliance with EtherNet/IP directive

The benefits:

- For multi-mode and single-mode
- In protective housing, also in IP67



**ST** acc. to IEC 61754-2

For use in building distributors, electrical cabinets, or for connecting our active components





















The benefits:

- For multi-mode, single-mode and POF



# Unlimited combinations: the modular principle



	Plug insert	Plug housing	Flange-mounted housing	Flange insert
<b>Copper</b>	 <b>RJ45 crimp</b>  <b>RJ45 can be assembled on-site</b>	 <b>HDC RockStar / Variant 5</b>  <b>Push-Pull / Variant 14</b>  <b>Bayonet / Variant 1, plastic</b>	   	 <b>RJ45 coupling</b>  <b>RJ45 Module A, B, P</b>  <b>USB-A coupling</b>
<b>Fibre-optic</b>	 <b>2 x SC</b>  <b>LC duplex</b>	 <b>Bayonet / Variant 1, metal</b>  <b>Push-Pull / Variant 4</b>  <b>Push-Pull / Variant 14</b>	 <b>Refer to the sets</b>	 <b>2SC/SCRJ adapter</b>  <b>LC duplex adapter</b>









Take advantage of maximum flexibility! The range of products guarantees you decisive advantages for your industrial applications. During planning, assembling and everyday operations. All variants are designed for class of protection IP 67.

The Weidmüller products take account of the latest market conditions and most recent international standards. And in so doing we offer you the option of unrestricted choice. What that means is that you get exactly the products you need for your application!

## Features







- The only 8-core, on-site assembled, RJ45 connector for 10 Gigabit-Ethernet.
- Larger cable sheath diameter range (up to 10 mm) for variants V4, V1, and V14. For V5 up to 12 mm.
- Suitable for connecting stranded conductors in sizes AWG 27/7 to AWG 22/7; solid conductors in sizes AWG 27/1 to 22/1.
- Modules and couplers have a robust diecast zinc housing (Cat.6 / Cat.6A).
- Design results in enhanced vibration and shock resistance for couplers and RJ45 modules.
- Variable bulkhead housing fixing options for variants V1 and V4.
- Additional marking surfaces on plug and bulkhead housing, subsequent colour coding of IP 20 and IP 67 plug-in connectors.
- Dirt-resistant housing design with enhanced resistance to oils, greases, acids and alkalis.

## Metal plug


Housings				Variant 1 Bayonet		Variant 14 PushPull RJ		Variant 14 PushPull fibre-optic		Variant 5 HDC
										
				With KS	Without KS	With KS	Without KS	With KS	Without KS	Without KS
<b>Inserts</b>				1962560000	1962550000	1011570000	1011560000	1058110000	1058100000	1962540000
	RJ45 AWG 24 crimp		1962720000	1963150000	1963140000	1012070000	1012160000			1963110000
	RJ45 AWG 22 tool-free	TIA-A/-B/-P	1962730000	1963130000	1963120000	1012090000	1012170000			1963200000
	LWL SC	MM	1962750000	1963270000	1963260000			Please order separately		
		SM	1962760000	1963310000	1963300000			Please order separately		
		POF	1962770000	1963290000	1963280000			Please order separately		
	LWL LC	MM	1962780000	1963230000	1963220000			Please order separately		
		SM	1962790000	1963250000	1963240000			Please order separately		
	Protective cap			1965690000		1058280000		1058280000		1963690000


KS = anti-kink protection

## Plastic plug

Housings				Variant 1 Bayonet		Variant 4 PushPull	
							
				With KS	Without KS	With KS	Without KS
<b>Inserts</b>				1012460000	1012440000	1962530000	1962520000
	RJ45 AWG 24 crimp		1962720000	1012560000	1012470000	1963190000	1963180000
	RJ45 AWG 22 tool-free	TIA-A/-B/-P	1962730000	1012570000	1012490000	1963170000	1963160000
	LWL SC	MM	1962750000	bitte einz. bestellen		1963370000	1963360000
		SM	1962760000	bitte einz. bestellen		1963410000	1963400000
		POF	1962770000	bitte einz. bestellen		1963390000	1963380000
	LWL LC	MM	1962780000	bitte einz. bestellen		1963330000	1963320000
		SM	1962790000	bitte einz. bestellen		1963350000	1963340000
	Protective cap			1965690000		1963890000	

KS = anti-kink protection

 Individual components

 Sets

V1 with SC multi-mode  
**1963260000**



V5 with RJ45 crimp  
**1963110000**



V4 with LC multi-mode  
**1963320000**














V14 with RJ45 tool-free  
**1912170000**














## Metal flange

Housings				Variant 1 Bayonet	Variant 14 PushPull RJ		Variant 14 PushPull fibre-optic		Variant 5 HDC
Inserts					 Standardized flange	 Central flange	 Standardized flange	 Central flange	
				1963540000	1011540000	1047950000			1963530000
	RJ45 coupling		1962840000	1963470000	1012310000	1058250000			1963510000
	RJ45 module	TIA-A	1962850000	1963480000	1012320000	1058270000			1963460000
		TIA-B	1963840000	Please order separately	Please order separately	Please order separately			Please order separately
		Profinet	1963830000	Please order separately	Please order separately	Please order separately			1963700000
	SC/SCRJ coupling	Multi Mode	1964430000	1964450000			1058120000	1062590000	
		Single Mode	1962870000	1963440000			1058140000	1062600000	
	LC Duplex coupling	Multi Mode	1964420000	1964440000			1058130000	1062610000	
		Single Mode	1962880000	1963430000			1058150000	1062620000	
	USB coupling		1019570000	Please order separately	Please order separately	Please order separately			Please order separately
	Protective cap			1965700000	1058310000		1058310000	1058310000	1665750000

## Plastic flange

Housings				Variant 1 Bayonet	Variant 4 PushPull
Inserts					
				1016960000	1963520000
	RJ45 coupling		1962840000	1012370000	1963490000
	RJ45 module	TIA-A	1962850000	1012380000	1963500000
		TIA-B	1963840000	Please order separately	1963730000
		Profinet	1963830000	Please order separately	Please order separately
	SC/SCRJ coupling	Multi Mode	1964430000	Please order separately	1964470000
		Single Mode	1962870000	Please order separately	1963420000
	LC Duplex coupling	Multi Mode	1964420000	Please order separately	1964460000
		Single Mode	1962880000	Please order separately	1963450000
	USB coupling		1019570000	Please order separately	Please order separately
	Protective cap			1965700000	1963900000

 Individual components  
 Sets

V5 with RJ45 coupling  
**1963510000**



V1 with SC multi-mode  
**1964450000**



V4 with LC multi-mode  
**1964460000**










V14 with RJ45 module  
**1012320000**





Junction boxes

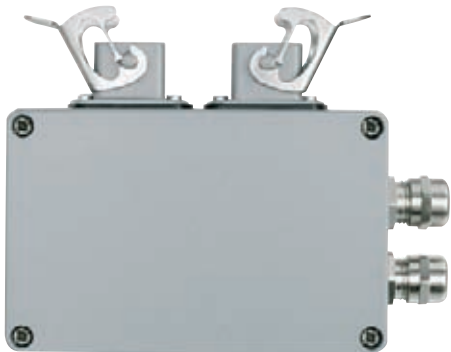
Flange version		Variant 1 Bayonet metal	Variant 4 PushPull/plastic	Variant 5 HDC
				
Housings				
	1 port – straight version	1966300000	1966220000	1966260000
	2 ports – right version	1966310000	1966230000	1966270000
	2 ports – left version	1966320000	1966240000	1966280000
	2 ports – straight version	1966330000	1966250000	1966290000

Other versions available on request.

V05 / 1 port, straight  
1966260000



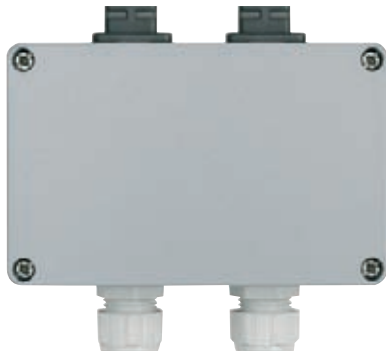
V 05 / 2 ports, right  
1966270000



V 01 / 2 ports, left  
1966320000



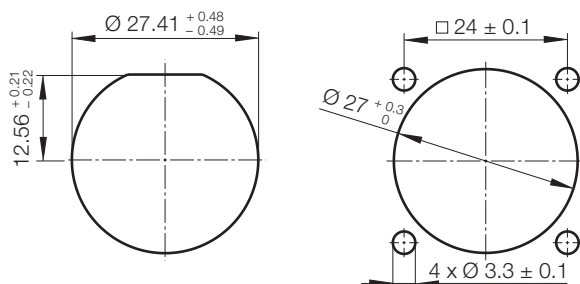
V 04 / 2 ports, straight  
1966250000





## Housing variant: 1 metal

- IP 67



## Housing variant: 1 metal

## Application:

The Weidmüller variant 1 housing are made up of a bottom part (flange) and a top part (plug housing). When plugged together, they achieve IP67 protection.

## Variation:

- 1962550000: plug-in housing
- 1962560000: plug-in housing with bending protection
- 1965690000: protective cap for plug-in housing (PA)
- 1963540000: bulkhead housing
- 1965700000: protective cap for bulkhead housing (PA)

The Weidmüller range of tools includes a selection of sheet metal punches for creating the cut-outs in switchgear cabinet doors. We also offer a comprehensive range of markers for connectors and flanges. See also the „Accessories“ chapter.



## Ordering data

Flange-mounted housing	Type	Order No.
	IE-BH-V01M	1963540000
Plug housing		
	IE-PH-V01M	1962550000
With kink prevention	IE-PH-V01M-BP	1962560000

## Accessories

Colour coding	Type	Order No.
yellow	IE-CR-IP67-WS20-YE	1963030000
Blue	IE-CR-IP67-WS20-BU	1963020000
Orange	IE-CR-IP67-WS20-OG	1963010000
green	IE-CR-IP67-WS20-GN	1963040000
grey	IE-CR-IP67-WS20-GY	1963000000
white	IE-CR-IP67-WS20-WH	1962990000
Dust cap		
Flange-mounted housing, protective cap	IE-BP-V01P	1965700000
Plug housing protective cap	IE-PP-V01P	1965690000
Note		

## Technical data

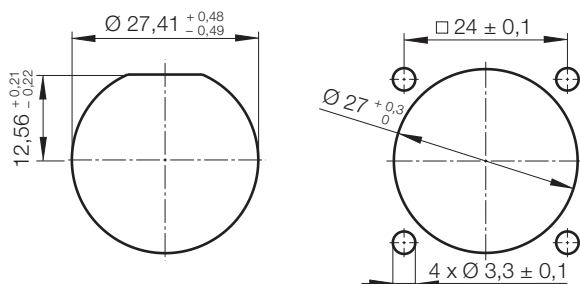
Protection class	IP 67
Housing material	Diecast zinc
Variant	Variant 1 to IEC 61076-3-106
Cladding diameter	5 mm - 10 mm
Configuration	Plug housing with labelling/marketing holder: 9*11 mm; suitable for holding RJ45 and fibre-optic inserts
Operating temperature, min. / max.	-40 °C / 70 °C
Plugging cycles	750 plugging cycles for plugs to IEC 60603-7

Note:

## Weidmüller IE-LINE

## Housing variant: 1 plastic

- IP 67



## Housing variant: 1 plastic

## Application:

The Weidmüller variant 1 housing are made up of a bottom part (flange) and a top part (plug housing). When plugged together, they achieve IP67 protection.

## Variation:

- 1012440000: plug-in housing
- 1012460000: plug-in housing with bending protection
- 1965690000: protective cap for plug-in housing (PA)
- 1016960000: bulkhead housing
- 1965700000: protective cap for bulkhead housing (PA)

The Weidmüller range of tools includes a selection of sheet metal punches for creating the cut-outs in switchgear cabinet doors. We also offer a comprehensive range of markers for connectors and flanges. See also the „Accessories“ chapter.



## Ordering data

Flange-mounted housing	Type	Order No.
	IE-BH-V01P	1016960000
Plug housing		
	IE-PH-V01P	1012440000
With kink prevention	IE-PH-V01P-BP	1012460000

## Accessories

Colour coding	Type	Order No.
yellow	IE-CR-IP67-WS20-YE	1963030000
Blue	IE-CR-IP67-WS20-BU	1963020000
Orange	IE-CR-IP67-WS20-OG	1963010000
green	IE-CR-IP67-WS20-GN	1963040000
grey	IE-CR-IP67-WS20-GY	1963000000
white	IE-CR-IP67-WS20-WH	1962990000
Dust cap		
Flange-mounted housing, protective cap	IE-BP-V01P	1965700000
Plug housing protective cap	IE-PP-V01P	1965690000
Note		

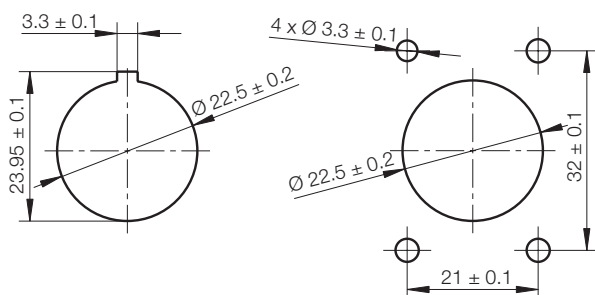
## Technical data

Protection class	IP 67
Housing material	PA UL 94 V0
Variant	Variant 1 to IEC 61076-3-106
Cladding diameter	5 mm - 10 mm
Configuration	Connector housing with label retainer 9*11 mm; suitable for holding RJ45 and FO inserts
Operating temperature, min. / max.	-40 °C / 70 °C
Plugging cycles	750 plugging cycles for plugs to IEC 60603-7

Note:

## Housing variant: 4 plastic

- IP 67



## Housing variant: 4 plastic

## Application:

The Weidmüller variant 4 housing are made up of a bottom part (flange) and a top part (plug housing). When plugged together, they achieve IP67 protection.

## Variation:

- 1962520000: plug-in housing
- 1962530000: plug-in housing with bending protection
- 1963890000: protective cap for plug-in housing(PA)
- 1963520000: bulkhead housing
- 1963900000: protective cap for bulkhead housing(PA)

The Weidmüller range of tools includes a selection of sheet metal punches for creating the cut-outs in switchgear cabinet doors. We also offer a comprehensive range of markers for connectors and flanges. See also the „Accessories“ chapter.



## Ordering data

Flange-mounted housing	Type	Order No.
	IE-BH-V04P	1963520000
Plug housing		
	IE-PH-V04P	1962520000
With kink prevention	IE-PH-V04P-BP	1962530000

## Accessories

Colour coding	Type	Order No.
yellow	IE-CR-IP67-WS20-YE	1963030000
Blue	IE-CR-IP67-WS20-BU	1963020000
Orange	IE-CR-IP67-WS20-OG	1963010000
green	IE-CR-IP67-WS20-GN	1963040000
grey	IE-CR-IP67-WS20-GY	1963000000
white	IE-CR-IP67-WS20-WH	1962990000
Dust cap		
Flange-mounted housing, protective cap	IE-BP-V04P	1963900000
Plug housing protective cap	IE-PP-V04P	1963890000
Note		

## Technical data

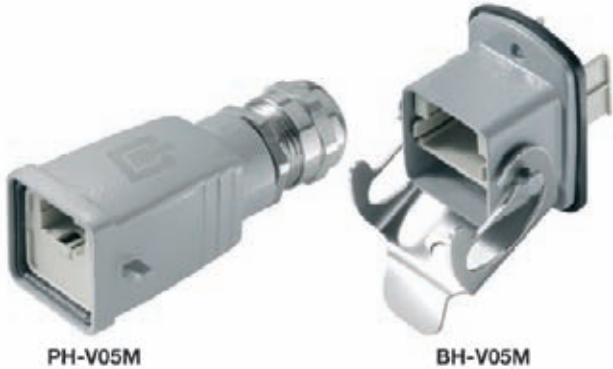
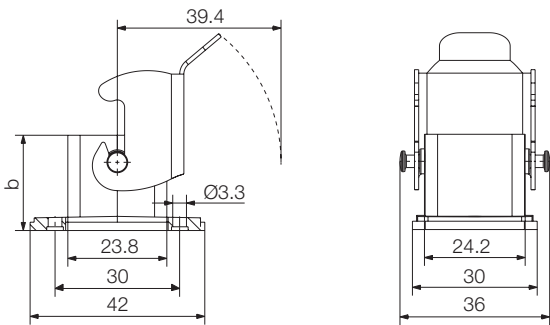
Protection class	IP 67
Housing material	PA UL 94 V0
Variant	Variant 4 to IEC 61076-3-106
Cladding diameter	5 mm - 10 mm
Configuration	Connector housing with label retainer 9*11 mm; suitable for holding RJ45 and FO inserts
Operating temperature, min. / max.	-40 °C / 70 °C
Plugging cycles	750 plugging cycles for plugs to IEC 60603-7

Note:

Weidmüller IE-LINE

Housing variant: 5 metal

- IP 67



Housing variant: 5 metal

Application:

The Weidmüller variant 5 housing are made up of a bottom part (flange) and a top part (plug housing). When plugged together, they achieve IP67 protection.

Variation:

- 1962540000: plug-in housing
- 1963690000: protective cap for plug-in housing
- 1963530000: bulkhead housing
- 1665750000: protective cap for bulkhead housing

The Weidmüller range of tools includes a selection of sheet metal punches for creating the cut-outs in switchgear cabinet doors. We also offer a comprehensive range of markers for connectors and flanges. See also the „Accessories“ chapter.

Ordering data

Flange-mounted housing	Type	Order No.
	IE-BH-V05M	1963530000
Plug housing		
	IE-PH-V05M	1962540000

Accessories

Dust cap	Type	Order No.
Flange-mounted housing, protective cap	IE-BP-V05M	1968930000
Plug housing protective cap	IE-PP-V05M	1968920000
Note		

Technical data

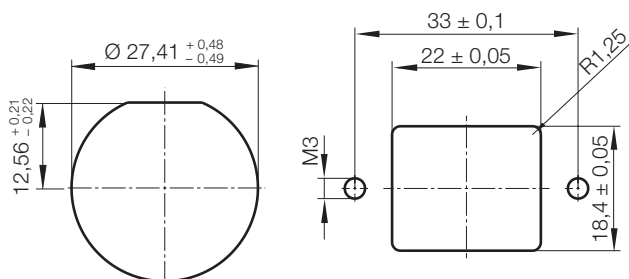
Protection class	IP 67
Housing material	Diecast aluminium
Variant	Variant 5 to IEC 61076-3-106
Cladding diameter	5 mm - 12 mm
Configuration	Suitable for fitting with RJ45 inserts
Operating temperature, min. / max.	-40 °C / 70 °C
Plugging cycles	750 plugging cycles for plugs to IEC 60603-7

Note:



## Housing variant: 14 metal

- IP 67



## Housing variant: 14 metal

## Application:

The Weidmüller variant-14 housings are made up of a bottom part (flange) and a top part (plug housing). When plugged together, they achieve IP67 protection.

## The differences:

- 1011560000: plug housing with RJ45 adapter
- 1011570000: plug housing with RJ45 adapter and kink prevention
- 1058100000: plug housing with fibre-optic adapter
- 1058110000: plug housing with fibre-optic adapter and kink prevention
- 1058280000: plug housing: protective cap (PA)
- 1011540000: standardized flange with RJ45 adapter
- 1047940000: device flange
- 1047950000: central locking flange with RJ45 adapter
- 1058310000: flange housing: protective cap (PA)

The Weidmüller range of tools includes a selection of sheet metal punches for creating the cut-outs in electrical cabinet doors. We also offer a comprehensive range of markers for connectors and flanges. See also the „Accessories“ chapter.



CR-IP67



BHS-V14M



PH-V14M



PH-V14M-BP

## Ordering data

Flange-mounted housing	
Standardized flange with RJ45 adapter	
Central locking flange with RJ45 adapter	
Device flange	
Plug housing	
With RJ45 adapter	
With RJ45 adapter and kink prevention	
With fibre-optic adapter	
With fibre-optic adapter and kink prevention	
on request	

Type	Order No.
IE-BHS-V14M-RJA	1011540000
IE-BHC-V14M-RJA	1047950000
IE-BHD-V14M	1047940000
IE-PH-V14M-RJ	1011560000
IE-PH-V14M-RJ-BP	1011570000
IE-PH-V14M-FO	1058100000
IE-PH-V14M-FO-BP	1058110000
on request	

## Accessories

Colour coding	
yellow	
Blue	
Orange	
green	
grey	
white	
Dust cap	
Flange-mounted housing, protective cap	
Plug housing protective cap	
Note	

Type	Order No.
IE-CR-IP67-WS20-YE	1963030000
IE-CR-IP67-WS20-BU	1963020000
IE-CR-IP67-WS20-OG	1963010000
IE-CR-IP67-WS20-GN	1963040000
IE-CR-IP67-WS20-GY	1963000000
IE-CR-IP67-WS20-WH	1962990000
IE-BP-V14P	1058310000
IE-PP-V14P	1058280000

## Technical data

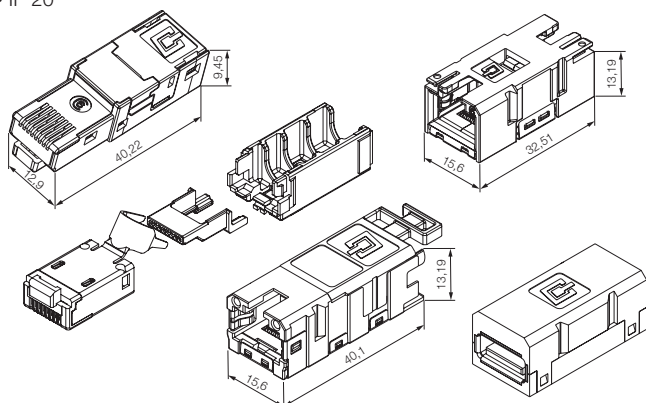
Protection class	IP 67
Housing material	Diecast zinc
Variant	Variant14 to IEC 61076-3-117
Cladding diameter	5mm - 10mm
Configuration	Connector housing with label retainer 9*11 mm; suitable for holding RJ45 and FO inserts
Operating temperature, min. / max.	-40 °C / 70 °C
Plugging cycles	750 plugging cycles for plugs to IEC 60603-7

Note:

## Weidmüller IE-LINE

### RJ45 inserts

- Cat.6A
- IP 20



### RJ45 inserts

#### Application:

The inserts are designed for use in Weidmüller housings – regardless of whether variant 1, variant 4 or variant 5.

#### RJ45 tool-free connector insert

- Die-cast zinc housing, black
- Litz conductor: AWG 26/7 to AWG 22/7
- Solid conductor: AWG 26/1 to AWG 22/1
- Sheath diameter: 5.5 to 8.5 mm
- Wire insulation diameter: up to 1.6 mm
- Colour coding on connector in TIA A/B/ProfiNet

#### RJ45 crimp connector insert:

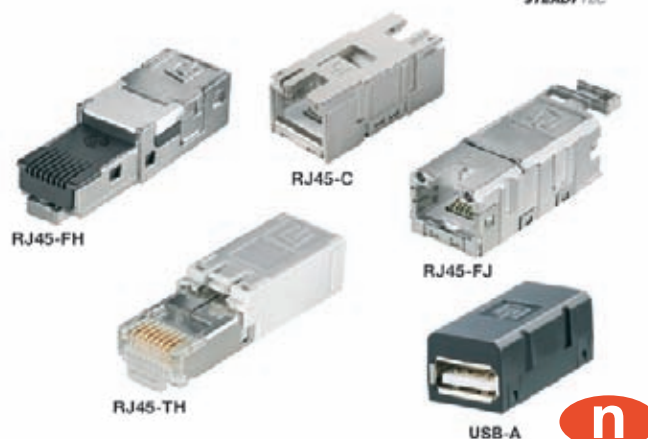
- Brass housing
- Litz conductor: AWG 27/7 to AWG 24/7
- Solid conductor: AWG 27/1 to AWG 24/1
- Sheath diameter: 5 to 7.3 mm
- Wire insulation diameter: 0.85 to 1.05 mm

#### RJ45 flange insert:

- Die-cast zinc housing
- Version for TIA A/B ProfiNet
- Litz conductor: AWG 26/7 to AWG 22/7
- Solid conductor: AWG 26/1 to AWG 22/1
- Sheath diameter: 5.5 to 10 mm
- Wire insulation diameter: up to 1.6 mm

#### USB flange insert

- Housing made from thermoplastic (PBT)
- Type A acc. to IEC 61076-3-107
- USB 2.0 compliant
- Rated for more than 1500 plugging cycles



### Ordering data

Flange insert	Type	Order No.
USB coupling, type A	IE-BI-USB-A	1019570000
RJ45 coupling, Type C	IE-BI-RJ45-C	1962840000
RJ45 AWG 22, EIA / TIA 586 A	IE-BI-RJ45-FJ-A	1962850000
RJ45 AWG 22, EIA / TIA 586 B	IE-BI-RJ45-FJ-B	1963840000
RJ45 AWG 22, PROFINET	IE-BI-RJ45-FJ-P	1963830000
Plug insert		
RJ45 tool-free	IE-PI-RJ45-FH	1962730000
RJ45 crimp	IE-PI-RJ45-TH	1962720000

### Accessories

tools	Type	Order No.
Pressing tool	TT 8 RS MP 8	9202800000
Note	See also the „Accessories“ chapter.	

### Technical data

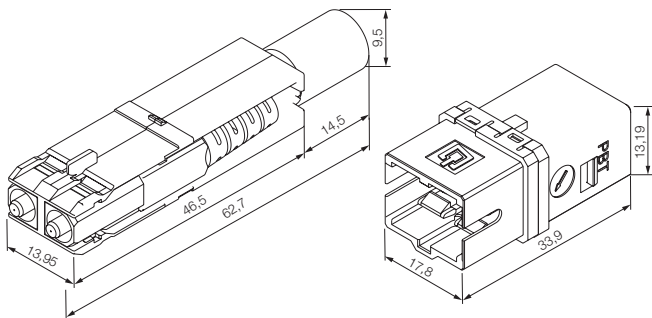
Category	Cat. 6A / Class E <sub>A</sub> (IEC 11801 PDAM Am 1.2 2007)
Protection class	IP 67 with housing
Plugging cycles	750 plugging cycles for plugs to IEC 60603-7
Shielding	360° all-round enclosure
Configuration	Connector and flange insert for variant 1, 4, 5 and 14 housings

Note:



## SC inserts

- IP 20



## SC inserts

### Application:

The SC inserts are designed for use in Weidmüller housings - regardless of whether variant1, variant 4 or variant 14.

You will find FO fabrication tools in the „Accessories“ chapter.

## Ordering data

Flange insert	
	SCRJ on 2 SC, single-mode
	SCRJ on 2 SC, multi-mode
Plug insert	
	2 SC, single-mode
	2 SC, multi-mode
	2 SC, POF

Type	Order No.
IE-BI-SCRJ2SC-SM-C	1962870000
IE-BI-SCRJ2SC-MM-C	1964430000
IE-PI-2SC-SM	1962760000
IE-PI-2SC-MM	1962750000
IE-PI-2SC-POF	1962770000

## Accessories

tools	
	Crimping pliers GOF
	Crimping pliers POF
	Crimping pliers GOF PROFINET
	Fibre-optic tool case
Note	

Type	Order No.
IE-CT-SC-GOF	9205320000
IE-CT-SC-POF	9205340000
IE-CT-SC-GOF-P	9205350000
IE-CTC-SCST-GOF	1032030000

## Technical data

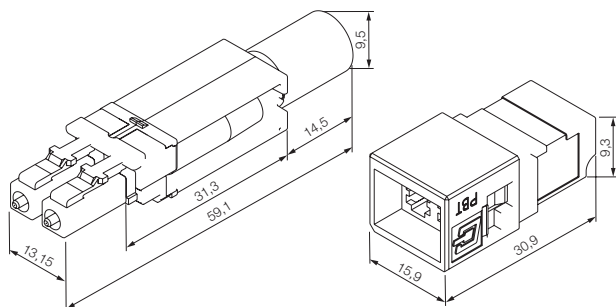
Protection class	IP 67 with housing
Housing material	Diecast zinc (plug), PA (flange)
Plugging cycles	1000 plugging cycles for plugs to IEC 61754
Configuration	Connector and flange insert for variant 1, 4 and 14 housings
Operating temperature, min. / max.	-40 °C / 70 °C

Note:

## Weidmüller IE-LINE

### LC inserts

- IP 20



PI-2LC



BI-LCD

### LC inserts

#### Application:

The LC inserts are designed for use in Weidmüller housings - both variant 1, variant 4 or variant 14.

You will find FO fabrication tools in the „Accessories“ chapter.

### Ordering data

Flange insert	
	LC duplex, single-mode
	LC duplex, multi-mode
Plug insert	
	2 LC, single-mode
	2 LC, multi-mode

Type	Order No.
IE-BI-LCD-SM-C	1962880000
IE-BI-LCD-MM-C	1964420000
IE-PI-2LC-SM	1962790000
IE-PI-2LC-MM	1962780000
Other versions on request	

### Accessories

tools	
	Crimping pliers GOF
	Fibre-optic tool case
Note	

Type	Order No.
IE-CT-LC-GOF	9205330000
IE-CTC-SCST-GOF	1032030000

### Technical data

Protection class	IP 67 with housing
Housing material	PBT diecast zinc
Plugging cycles	1000 plugging cycles for plugs to IEC 61754
Configuration	Connector and flange insert for variant 1, 4 and 14 housings
Operating temperature, min. / max.	-40 °C / 70 °C

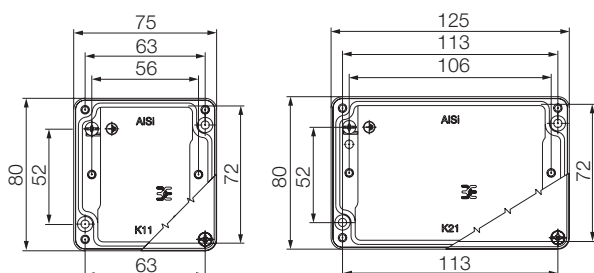
Note:





## Outlet boxes IP 67

- IP 67
- for floor or wall mounting



## IP 67 junction boxes

### Application:

The Weidmüller IP 67 junction boxes should be your first choice when you need connection options for your networks in industrial environments.

### Variations:

- variant 4 with M16 plastic cable glands
- variant 1 and variant 5 with nickel-plated brass cable glands in M16
- Variant 14 on request

## Ordering data

Variant 1	Type	Order No.
1 port, straight	IE-OM-V01M-K11-1S	1966300000
2 ports, left	IE-OM-V01M-K21-2L	1966320000
2 ports, right	IE-OM-V01M-K21-2R	1966310000
2 ports, straight	IE-OM-V01M-K21-2S	1966330000
Variant 4		
1 port, straight	IE-OM-V04P-K11-1S	1966220000
2 ports, left	IE-OM-V04P-K21-2L	1966240000
2 ports, right	IE-OM-V04P-K21-2R	1966230000
2 ports, straight	IE-OM-V04P-K21-2S	1966250000
Variant 5		
1 port, straight	IE-OM-V05M-K11-1S	1966260000
2 ports, left	IE-OM-V05M-K21-2L	1966280000
2 ports, right	IE-OM-V05M-K21-2R	1966270000
2 ports, straight	IE-OM-V05M-K21-2S	1966290000
Additional variants on request RJ45 modules can be ordered separately		

## Accessories

Flange insert	Type	Order No.
AWG 22, EIA / TIA 586 A	IE-BI-RJ45-FJ-A	1962850000
AWG 22, EIA / TIA 586 B	IE-BI-RJ45-FJ-B	1963840000
AWG 22, PROFINET	IE-BI-RJ45-FJ-P	1963830000
Note		

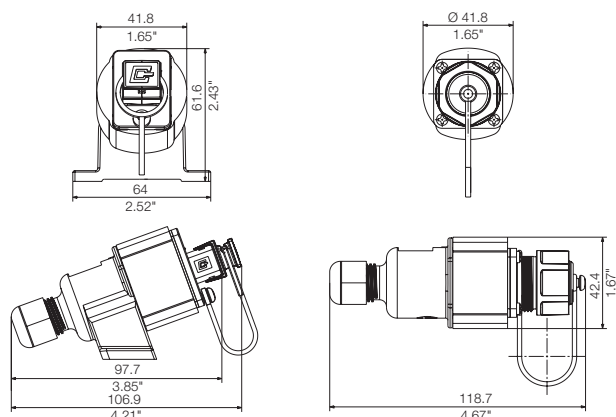
## Technical data

Protection class	IP 67
Housing material	Al - Si 12
Colour	grey
Installation	Wall or floor mounting
Configuration	Rugged powder coating, in RAL 7001. Two housing sizes. One or two ports in variants V1, V4 and V5. Straight, left and right cable exit. Protective caps included in delivery
Operating temperature, min. / max.	-40 °C / 70 °C
Plugging cycles	750 plugging cycles for plugs to IEC 60603-7

Note:

## Weidmüller IE-LINE

### Junction box, cable coupling



### Junction box, cable coupling

Application: Weidmüller's junction boxes and cable couplings should be your first choice when you need connection options for your networks in industrial environments.

#### The differences:

- 1045780000: wall-mounted socket, variant 4
- 1045960000: coupling, variant 4
- 1061830000: wall-mounted socket, variant 1
- 1061820000: coupling, variant 1



OP-V04P-1S



CC-V01P

### Ordering data

Variation 1	
	Junction box
	Cable coupling
Variation 4	
	Junction box
	Cable coupling

Type	Order No.
IE-OP-V01P-1S	1061830000
IE-CC-V01P	1061820000
Type	Order No.
IE-OP-V04P-1S	1045780000
IE-CC-V04P	1045960000
RJ45 modules can be ordered separately	

### Accessories

Flange insert	
	AWG 22, EIA / TIA 586 A
	AWG 22, EIA / TIA 586 B
	AWG 22, PROFINET
Note	

Type	Order No.
IE-BI-RJ45-FJ-A	1962850000
IE-BI-RJ45-FJ-B	1963840000
IE-BI-RJ45-FJ-P	1963830000

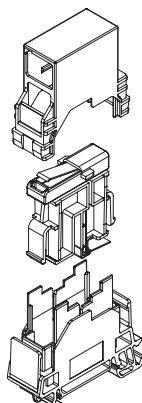
### Technical data

Technical data	
Protection class	IP 67
Housing material	PA UL 94 V0
Colour	black
Installation	Wall or floor mounting, for exposed connections
Operating temperature, min. / max.	-40 °C / 70 °C
Plugging cycles	750 plugging cycles for plugs to IEC 60603-7

Note:

## Mounting rail outlet RJ45

- Cat.6A
- IP 20
- TS35



RJ45-C RJ45-FJ-A RJ45-FJ-B RJ45-FJ-P

## Mounting rail outlet RJ45

### Application:

Weidmüller mounting rail outlets should be your first choice in the switchgear cabinet when you need to connect

- installation cables,
- RJ45 cables,

### Variations:

- 8946920000: RJ45 coupling
- 8946930000: Outlet RJ45 A-coded
- 8946940000: Outlet RJ45 B-coded
- 8946950000: Outlet RJ45 ProfiNet-coded

## Ordering data

RJ45	Type	Order No.
RJ45 coupling	IE-TO-RJ45-C	8946920000
Outlet RJ45 A-coded	IE-TO-RJ45-FJ-A	8946930000
Outlet RJ45 B-coded	IE-TO-RJ45-FJ-B	8946940000
Outlet RJ45 PROFINET-coded	IE-TO-RJ45-FJ-P	8946950000

## Accessories

markers	Type	Order No.
9*11 mm, white	ESG 9/11K MC NEUTRAL	1857440000
Labels		
9*11 mm, white	LM MT DIN A5 9/11 WS	1964070000
9*11 mm, blue	LM MT DIN A5 9/11 BL	1964100000
9*11 mm, yellow	LM MT DIN A5 9/11 GE	1964110000
9*11 mm, grey	LM MT DIN A5 9/11 GR	1964080000
9*11 mm, green	LM MT DIN A5 9/11 GN	1964120000
9*11 mm, orange	LM MT DIN A5 9/11 OR	1964090000
Note		

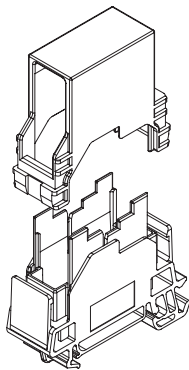
## Technical data

Category	Cat. 6A / Class E <sub>A</sub> (IEC 11801 PDAM Am 1.2 2007)
Protection class	IP 20
Housing material	PA UL94 VO
Colour	light grey (RAL 7035)
Installation	for terminal rail TS35
Configuration	Switchable voltage connection from module / coupling to mounting rail
Plugging cycles	750 plugging cycles for plugs to IEC 60603-7
Operating temperature, min. / max.	-25 °C / 70 °C

Note:

## Mounting rail outlet FO

- IP 20
- TS35



## Mounting rail outlet FO

## Application:

Weidmüller mounting rail outlets should be your first choice in the switchgear cabinet when you need to connect

- fibre optic cable with SC-Duplex-, SCRJ- and LC-duplex connectors.

## Variations:

- 8946970000: SC-Duplex Multi-mode
- 8946980000: SC-Duplex Single-mode
- 8946990000: SCRJ Multi-mode
- 8947000000: SCRJ Single-mode
- 8947010000: LC-Duplex Multi-mode
- 8947020000: LC-Duplex Single-mode

## Ordering data

Fibre-optic		Type	Order No.
LCD multi-mode	LCD multi-mode	IE-TO-LCD-MM	8947010000
	LCD single-mode	IE-TO-LCD-SM	8947020000
	SCD multi-mode	IE-TO-SCD-MM	8946970000
	SCD single-mode	IE-TO-SCD-SM	8946980000
	SCRJ multi-mode	IE-TO-SCRJ-MM	8946990000
	SCRJ single-mode	IE-TO-SCRJ-SM	8947000000

## Accessories

markers		Type	Order No.
Labels	9*11 mm, white	ESG 9/11K MC NEUTRAL	1857440000
	9*11 mm, white	LM MT DIN A5 9/11 WS	1964070000
	9*11 mm, blue	LM MT DIN A5 9/11 BL	1964100000
	9*11 mm, yellow	LM MT DIN A5 9/11 GE	1964110000
	9*11 mm, grey	LM MT DIN A5 9/11 GR	1964080000
	9*11 mm, green	LM MT DIN A5 9/11 GN	1964120000
Note		9*11 mm, orange	LM MT DIN A5 9/11 OR

## Technical data

Protection class	IP 20
Housing material	PA UL94 VO
Colour	light grey (RAL 7035)
Installation	for terminal rail TS35
Plugging cycles	1000 plugging cycles for plugs to IEC 61754
Operating temperature, min. / max.	-25 °C / 70 °C

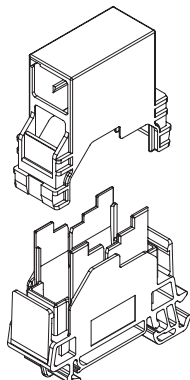
Note:





## Mounting rail outlet USB

- IP 20
- TS35



TO-USB

## Mounting rail outlet USB

### Application:

Weidmüller mounting rail outlets should be your first choice in the switchgear cabinet when you need to connect

- USB-A cable.

## Ordering data

USB	Type	Order No.
TO-USB	IE-TO-USB	8946960000

## Accessories

markers	Type	Order No.
9*11 mm, white	ESG 9/11K MC NEUTRAL	1857440000
Labels		
9*11 mm, white	LM MT DIN A5 9/11 WS	1964070000
9*11 mm, blue	LM MT DIN A5 9/11 BL	1964100000
9*11 mm, yellow	LM MT DIN A5 9/11 GE	1964110000
9*11 mm, grey	LM MT DIN A5 9/11 GR	1964080000
9*11 mm, green	LM MT DIN A5 9/11 GN	1964120000
9*11 mm, orange	LM MT DIN A5 9/11 OR	1964090000
Note		

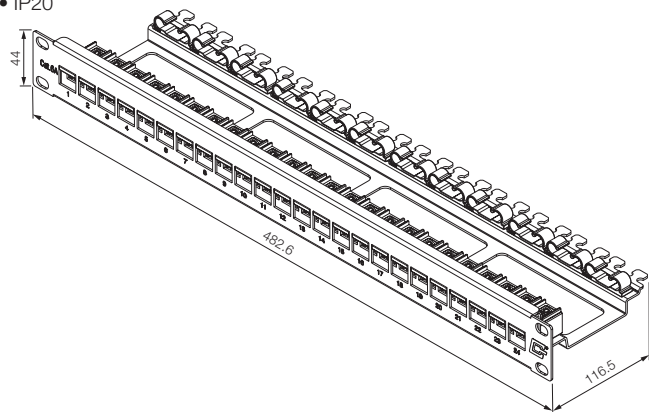
## Technical data

Protection class	IP 20
Housing material	PA UL94 VO
Colour	light grey (RAL 7035)
Installation	for terminal rail TS35
Operating temperature, min. / max.	-25 °C / 70 °C

Note:

19" patch panel

- Cat.6A
- IP20



19" patch panel

Application:

Weidmüller's 19" patch panel can help you implement a Category 6A (acc. to IEC 11801) installation of your Industrial Ethernet – all the way from the building distributor to the electrical cabinet.

The differences:

- 1049270000: 19" panel with 24 RJ45 adapters (without inserts)
- 1049910000: 19" panel with 24 RJ45 modules EIA / TIA 586 A
- 1049920000: 19" panel with 24 RJ45 modules EIA / TIA 586 B
- 1049930000: 19" panel with 24 RJ45 couplings



Ordering data

19" patch panel	Type	Order No.
With 24 RJ45 adapters	IE-PPA19-24P	1049270000
With 24 RJ45 modules A	IE-PPA19-24P-RJ45-FJ-A	1049910000
With 24 RJ45 modules B	IE-PPA19-24P-RJ45-FJ-B	1049920000
With 24 RJ45 couplings	IE-PPA19-24P-RJ45-C	1049930000

Accessories

Flange insert	Type	Order No.
AWG 22, EIA / TIA 586 A	IE-BI-RJ45-FJ-A	1962850000
AWG 22, EIA / TIA 586 B	IE-BI-RJ45-FJ-B	1963840000
AWG 22, PROFINET	IE-BI-RJ45-FJ-P	1963830000
USB coupling, type A	IE-BI-USB-A	1019570000
Note		

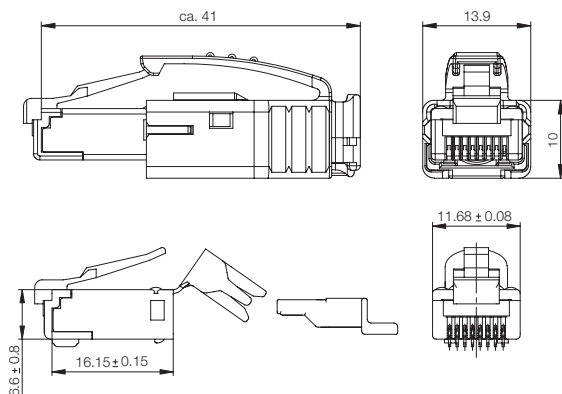
Technical data

Category	Cat. 6A / Class E <sub>A</sub> (IEC 11801 PDAM Am 1.2 2007)
Protection class	IP 20
Housing material	Powder-coated steel sheet
Colour	light grey (RAL 7035)
Plugging cycles	750 plugging cycles for plugs to IEC 60603-7
Operating temperature, min. / max.	-40 °C / 70 °C

Note:

## RJ45 crimp plug

- Cat.6A
- IP 20



## RJ45 crimp plug

### Application:

Weidmüller's AWG24 connector - for assembling your installation and connection cable.

### Variations:

- 1963590000: a complete connector, including black kink protection sleeve
- 1963580000: connector for combination with the coloured kink-prevention sleeves



## Ordering data

Plug	
With kink-prevention sleeve, black	
Without kink-prevention sleeve	

Type	Order No.
IE-PS-RJ45-TH-BK	1963590000
IE-PM-RJ45-TH	1963580000

## Accessories

Kink-prevention sleeve	
yellow	
Blue	
Orange	
green	
grey	
white	
black	

Type	Order No.
IE-PH-RJ45-TH-YE	1962480000
IE-PH-RJ45-TH-BU	1962470000
IE-PH-RJ45-TH-OG	1962450000
IE-PH-RJ45-TH-GN	1962490000
IE-PH-RJ45-TH-GY	1962440000
IE-PH-RJ45-TH-WH	1962430000
IE-PH-RJ45-TH-BK	1962500000

tools	
Crimping tool	

TT 8 RS MP 8	9202800000
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Note	
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## Technical data

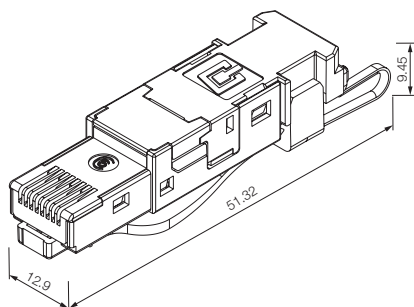
Category	Cat. 6A / Class E <sub>A</sub> (IEC 11801 PDAM Am 1.2 2007)
Protection class	IP 20
Housing material	Brass, PC UL94 V0
Stranded cable diameter, Flexible, min. / max.	0.46 mm / 0.61 mm
Cable strand diameter, flexible, min. / max.	AWG 27 / AWG 24
Solid wire diameter, min. / max.	0.36 mm / 0.51 mm
Solid wire diameter, min. / max.	AWG 27 / AWG 24
Wire insulation diameter, max.	1.05 mm
Cladding diameter, min. / max.	5 mm / 7.3 mm
Shielding	360° all-round enclosure
Plugging cycles	750 plugging cycles for plugs to IEC 60603-7
Configuration	Connects piercing contacts and shielded connections in one step, retro-fit for bending protection sleeves, Multi-port compatible
Operating temperature, min. / max.	-40 °C / 70 °C

### Note:

## Weidmüller IE-LINE

### RJ45 plug field installation

- Cat.6A
- IP 20



CR-IP20-RJ45



PS-RJ45

### RJ45 plug, no tools required

#### Application:

Weidmüller's on-site user-assembled AWG22 connector is especially suited for assembling your installation cables, no crimping tool is required.

You can open and close this connector at least five times - without any loss of function.

### Ordering data

Plug
EIA / TIA 568 A/B/PROFINET

Type	Order No.
IE-PS-RJ45-FH-BK	1963600000

### Accessories

Strain relief
yellow
Blue
Orange
grey
green
white
Note

Type	Order No.
IE-CR-IP20-RJ45-FH-YE	1963090000
IE-CR-IP20-RJ45-FH-BU	1963080000
IE-CR-IP20-RJ45-FH-OG	1963070000
IE-CR-IP20-RJ45-FH-GY	1963060000
IE-CR-IP20-RJ45-FH-GN	1963100000
IE-CR-IP20-RJ45-FH-WH	1963050000

### Technical data

Category	Cat. 6A / Class E <sub>A</sub> (IEC 11801 PDAM Am 1.2 2007)
Protection class	IP 20
Housing material	Diecast zinc
Colour	black
Stranded cable diameter, Flexible, min. / max.	0.48 mm / 0.76 mm
Cable strand diameter, flexible, min. / max.	AWG 26 / AWG 22
Solid wire diameter, min. / max.	0.4 mm / 0.64 mm
Solid wire diameter, min. / max.	AWG 26 / AWG 22
Wire insulation diameter, max.	1.6 mm
Cladding diameter, min. / max.	5.5 mm / 8.5 mm
Shielding	360° all-round enclosure
Plugging cycles	750 plugging cycles for plugs to IEC 60603-7
Configuration	Eight-wire user-assembled RJ45 connector with colour coding on connector, TIA A/B/PROFINET, Multi-port compatible
Operating temperature, min. / max.	-40 °C / 70 °C

Note:

**FO connector**

- IP 20
- POF, multimode or singlemode

**PS-SC****PS-SCD****PS-LCD****PS-SCRJ****FO connector****Application:**

Weidmüller's FO connectors are your best choice when assembling your own fibre-optic cables.

**Connection brackets for SCRJ:**

- IE-PB-SCRJ-MM 1962890000 beige
- IE-PB-SCRJ-SM 1965850000 blue
- IE-PB-SCRJ-POF 1965840000 yellow

**Connection brackets for SCD:**

- IE-PB-SCD-MM 1962900000 beige
- IE-PB-SCD-SM 1965860000 blue
- IE-PB-SCD-POF 1967690000 yellow

You will find FO fabrication tools in the „Accessories“ chapter.

**Ordering data**

Plug LC-duplex		Type	Order No.
	Single-mode	IE-PS-LCD-SM	1962980000
	Multimode	IE-PS-LCD-MM	1962970000
Plug SC			
	Single-mode	IE-PS-SC-SM	1962920000
	Multimode	IE-PS-SC-MM	1962910000
	POF	IE-PS-SC-POF	1962930000
Plug SC-duplex			
	Single-mode	IE-PS-SCD-SM	1964410000
	Multimode	IE-PS-SCD-MM	1964480000
Plug SCRJ			
	Single-mode	IE-PS-SCRJ-SM	1962950000
	Multimode	IE-PS-SCRJ-MM	1962940000
	POF	IE-PS-SCRJ-POF	1962960000

**Accessories**

Fibre-optic plug clip		Type	Order No.
	SC duplex, multi-mode, beige	IE-PB-SCD-MM	1962900000
	SCRJ, multi-mode, beige	IE-PB-SCRJ-MM	1962890000
Note			

**Technical data**

Protection class	IP 20
Plugging cycles	1000 plugging cycles for plugs to IEC 61754
Configuration	Retaining frame for integrating Simplex connectors
Operating temperature, min. / max.	-40 °C / 70 °C

Note:

# Overview of Weidmüller IE-LINE RJ45 and M12

For use in switching cabinets and on machines and plants in harsh industrial environments.

## Terminal rail outlets



for connections in switching cabinets or junction boxes

- in Cat.6
- IP 20

## Adapter and coupler



for linking and connecting M12 cables

- M12, d-coded

## Junction box, coupler and plug



for IP 67 connections in the field

- in Cat.6
- IP 67

## PCB connecting elements



for your devices in the field of PROFINET

- M12, d-coded

## Built-in flange



for switching cabinet interfaces in IP 67

- in Cat.6
- IP 67
- various models

## Plug-in connector



With tension-clamp or screw connection

- M12 D-coded
- Stainless steel or brass version

## Cable splitter module



for adapting an 8-core installation cable to two 4-core services

- in Cat.5
- IP 20

## Connecting module



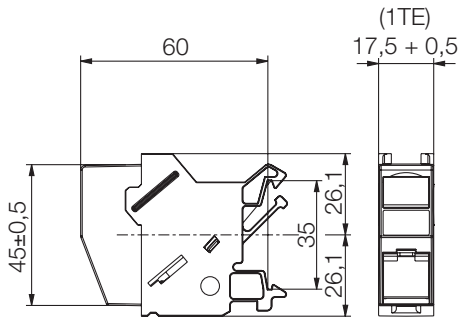
for connecting or repairing installation lines

- in Cat.7
- IP 20



Terminal rail outlets

- Cat.6
- IP 20
- TS35



Terminal rail outlets

Application:

Weidmüller mounting rail outlets should be your first choice in the switchgear cabinet when you need to connect

- installation cables,
- RJ45 cables,
- Fibre optic cable with ST connectors

The differences:

- 8808360000: RJ45 module insert for connecting conductor from AWG26 to AWG22; colour-coded acc. to EIA/TIA 568 A
- 8891980000: RJ45 module insert for connecting conductor from AWG26 to AWG22, colour-coded acc. to EIA/TIA 568 B
- 8879050000: coupling insert RJ45 to RJ45
- 8808340000: coupling insert ST to ST

Ordering data

with Coupling	
	RJ45 - RJ45
	ST - ST
with module insert	
	RJ45 module EIA/TIA 568 A
	RJ45 module EIA/TIA 568 B

Type	Order No.
IE-XM-RJ45/RJ45	8879050000
IE-XM-ST/ST	8808340000
IE-XM-RJ45/IDC	8808360000
IE-XM-RJ45/IDC-B	8891980000

Accessories

	Outlet marker
Note	

Type	Order No.
IE-DM	8813500000

Technical data

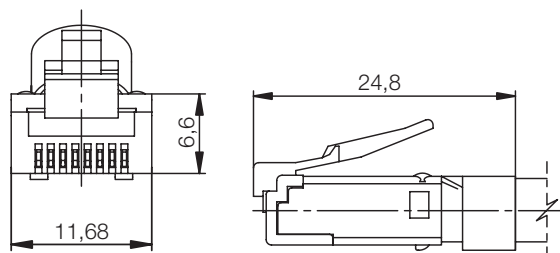
Category	Cat.6 (IEC 11801)
Protection class	IP 20
Housing material	PA 66; UL 94: V0
Colour	light grey (RAL 7035)
Plugging cycles	750 plugging cycles for plugs to IEC 60603-7
Installation	for terminal rail TS35

Note:

## Weidmüller IE-LINE RJ45

## RJ45 connecting plug

- Cat.6
- with bending protection



## RJ45 connecting plug

## Application:

Weidmüller's RJ45 connectors help you to assemble your cable, whether they are from solid or flexible conductors.

## Variations:

- 8813110000: connector with bending protection sleeve; Cable clamping range from 5.5 to 6.2 mm
- 8881320000: connector with kink-prevention sleeve; Cable clamping range from 6.2 to 7.1 mm

## Ordering data

Plug	
With kink prevention; 5,5 - 6,2 mm	
With kink prevention; 6,2 - 7,1 mm	

Type	Order No.
IE-P63	8813110000
IE-P70	8813120000

## Accessories

tools	
Crimping tool	
Note	

Type	Order No.
TT 8 RS MP 8	9202800000
See also the „Accessories“ chapter.	

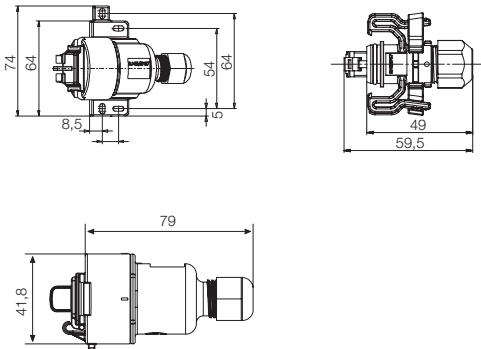
## Technical data

Category	Cat.6 (IEC 11801)
Protection class	IP 20
bending protection / Locking lever catch	Yes
Stranded cable diameter, Flexible, min. / max.	0.46 mm / 0.61 mm
Cable strand diameter, flexible, min. / max.	AWG 27/7 / AWG 24/7
Solid wire diameter, min. / max.	0.36 mm / 0.51 mm
Solid wire diameter, min. / max.	AWG 27/1 / AWG 24/1
Plug to IEC 60603-7-5 (standard)	Yes, tested to 250 MHz
Bending protection sleeve material	Polyamide PA6, UL94-VO
Material of insulating parts	PC UL 94 V-0
Contact material	Phosphorus bronze
Contact surface	gold-plated
Shielding material	0.5 mm brass, 2 µm nickel
Plugging cycles	750 plugging cycles for plugs to IEC 60603-7
Cable pull-out force, min.	89 N
Insertion force, max.	20 N
Operating temperature, min. / max.	-40 °C / 70 °C
Contact resistance, max.	20 mΩ
Insulation resistance, min.	500 MΩ
Dielectric strength, contact - contact	1000 V DC
Dielectric strength, contact - shield	1500 V DC
Operating current at 50°C	1 A

## Note:

Junction box, cable coupler, plug V 06

- Cat.6
- IP 67



Junction box, cable coupling, V 06 plug

Application:

Use connectors with IP 67 protection to connect your industrial Ethernet lines in industrial environments.

The differences:

- 8808370000: junction box for fixed mounting; IDC connection for conductors from AWG26 to AWG 22
- 8813090000: cable coupling for exposed connections; IDC connection for conductors from AWG 26 to AWG 22
- 8808380000: crimp-version plug set for connecting to junction box or cable coupling; for flexible conductors from AWG 27/7 to AWG 24/7

Ordering data

Description of article	Type	Order No.
Junction box	IE-S-IP67	8808370000
Cable coupling	IE-C-IP67	8813090000
Plug	IE-P-IP67	8808380000

Accessories

tools	Type	Order No.
Crimping tool	TT 8 RS MP 8	9202800000
Note	See also the „Accessories“ chapter.	

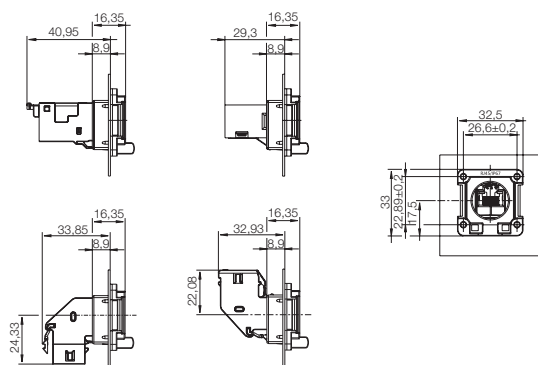
Technical data

Category	Cat.6 (IEC 11801)
Protection class	IP 67
Shielding	360° shield contact
Housing material	PA 66; UL 94: V-0
Colour	light grey (RAL 7035)
Plugging cycles	750 plugging cycles for plugs to IEC 60603-7
Installation	Wall or floor mounting, for exposed connections
Wiring	Colour-coded pin assignment to EIA/TIA T568 A.
Operating temperature, min. / max.	-40 °C / 70 °C

Note:

### Built-in flange V 06

- Cat.6
- IP 67



### V 06 mounting flange

**Application:**

Weidmüller's mounting flanges are your best choice when you need IP 67 connections at the switching cabinet or distribution board.

**TVariations:**

- 8808440000: RJ45 module insert for connection of conductors ranging from AWG 26 to AWG 22; Colour coding acc. to EIA/TIA 568 A
- 8808450000: coupling insert for RJ45 to RJ45, straight version
- 8829450000: coupling insert for RJ45 to RJ45, downwards angled version
- 8829440000: coupling insert for RJ45 to RJ45, upwards angled version
- 8892670000: coupling insert for USB to USB

## Ordering data

<b>Coupling flange</b>	straight
	Angled, downwards
	Angled, upwards
<b>RJ45 module flange</b>	straight
<b>USB flange</b>	

## Accessories

Flange insert	
	RJ45 module A, straight
	RJ45 module B, straight
	RJ45 coupling, straight
	RJ45 coupling, angled
<b>Note</b>	

Type	Order No.
IE-X1M-FJ45/RJ45-IP67	8808450000
IE-XM-6D-RJ45/RJ45-IP67	8829450000
IE-XM-6U-RJ45/RJ45-IP67	8829440000
IE-XM-RJ45/IDC-IP67	8808440000
IE-XM-USB/USB-IP67	8892670000

Type	Order No.
IE-XRJ45/DC	8808330000
IE-XRJ45/DC-B	8908840000
IE-XRJ45/RJ45	8878120000
IE-U-XRJ45/RJ45	8878130000

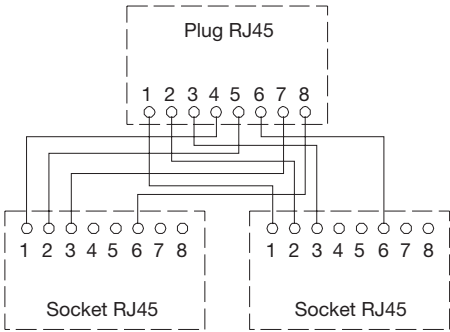
## Technical data

Category	Cat.6 (IEC 11801)
Protection class	IP 67
Housing material	PA 66; UL 94: V-0
Colour	light grey (RAL 7035)
Shielding	360° shield contact
Installation	in switching cabinet or junction boxes
Plugging cycles	750 plugging cycles for plugs to IEC 60603-7

**Note:**

Cable splitter module

- Cat.5
- IP 20



Cable splitter module

Application:

If you need an adapter that lets you use one eight-wire installation cable for two four-wire services, then the Weidmüller cable splitter module is the right choice for you.

Ordering data

Description of article	Type	Order No.
Cable splitter module	IE-CSM 1 Set	8808400000
	Supplied in packs of 2 pcs	

Accessories

Note

Technical data

Category	Cat.5 (IEC 11801)
Protection class	IP 20
Colour	light grey (RAL 7035)
Installation	can be plugged in adjacent to each other in patch panel
Housing material	shockproof ABS, metallised aluminium

Note:

Connection module

- Cat.7
- IP 20



Connecting module

Application:

The Weidmüller connecting module is useful for repairing or extending cables in confined spaces without any extra cable.

Please note that you will need to make an extra plug-in connection when using this module. This can influence the transmission properties of that stretch and must therefore be documented.

Ordering data

Description of article	Type	Order No.
Connecting module	IE-CCM	8808410000

Accessories

tools	Type	Order No.
PUNCH DOWN TOOL	PUNCH DOWN TOOL PDT	9013970000
Note	Blades see the „Tools“ chapter (page E.7).	

Technical data

Category	Cat.7 (IEC 11801)
Protection class	IP 20
Housing material	fully shielded metal housing
Colour	grey
Shielding	Captive 360° shield connection, plus separate strain relief
Installation	Wall or floor mounting
Functionality	Module for extending or repairing Ethernet cables; cable can be fed from one or both ends.
Connection for core	AWG 24 to AWG 22/1 IDC LSA Plus®

Note:





# M12 connection system

## Description

M12 is by far the most widespread connection method for controller systems and field level connections. M12 connections have been used with success in the automation sector for about thirty years. The M12 is trusted by users for its compact and sturdy design. It is also available with IP67 protection in compliance with EN 60529. IE organizations and associations are now leading harmonization efforts regarding IP67 connections in Industrial Ethernet. These organizations agree on the use of the M12 connector with the D-coded mating profile. The Profibus User Organization (Profinet), Ethernet Powerlink Standardization Group (Ethernet Powerlink), Modbus IDA (Modbus) and ODVA (Ethernet/IP) all support the M12, D-coded connection along side the RJ45 connection.

## Application

M12, D-coded plug-in connectors and cables are used for applications in harsh industrial environments – ideal for Ethernet connections in class of protection IP 67 between devices on the machine and in the switching cabinet, or in moving cable carriers.

## Features

- IP 67 class of protection
- 4-core conductor connection
- M12, d-coded pin arrangement to ISO IEC 61076-2-101

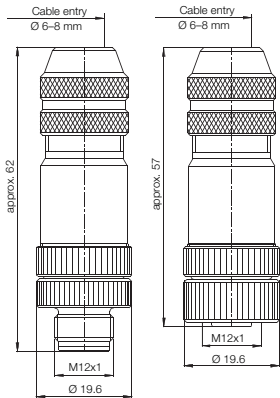
## The benefits for you

- Familiar connection technology for Industrial Ethernet as well
- Compact dimensions



M12 connector, screw connection

- Cat.5
- IP 67
- Screw connection



M12 connector, screw connection 1

Application:

Weidmüller's field-assembled M12 plug-in connectors can be used for assembling 4-wire Ethernet cables directly on-site:

- on the panel
- without tools
- fast
- simple

Features:

- Cat.5
- M12 D-coded
- IP 67
- in male and female versions

The differences:

- 1892120000: male version, straight, brass, nickel-plated, screw connection
- 1892130000: female version, straight, brass, nickel-plated, screw connection

Ordering data

Male	Type	Order No.
4-pole, PG 9	SAISM-4/8S-M12-4P D-COD	1892120000
Socket		
4-pole, PG 9	SAIBM-4/8S-M12-4P D-COD	1892130000

Accessories

Note
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Technical data

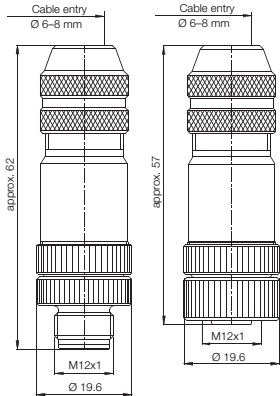
Category	Cat.5
Protection class	IP 67
Connection type	Screw connection
Housing material	Brass
Contact tube diameter	M12
Cladding diameter, min. / max.	6 mm / 8 mm
Cross-section	0.14 ... 0.5 mm²
Operating temperature, min. / max.	-40 °C / 85 °C

Note:

Weidmüller IE-LINE M12

M12 connector, tension-clamp connection

- IP 67
- Tension-clamp connection



M12 connector, tension-clamp connection

Application:

Weidmüller's field-assembled M12 plug-in connectors can be used for assembling 4-wire Ethernet cables directly on-site:

- in the field
- without tools
- fast
- simple

Features:

- M12 D-coded
- IP 67
- in male and female versions

Differences:

- 1892120001: Male straight version, brass, nickel-plated, tension-clamp connection
- 1803930001: Male angled version, brass, nickel-plated, tension-clamp connection
- 1892130001: Female straight version: brass, nickel-plated, tension-clamp connection

Ordering data

Male	
	Tension-clamp connection, straight
	Tension-clamp connection, angled
Socket	
	Tension-clamp connection, straight

Type	Order No.
SAISM-4/8S-M12 4P D-ZF	1892120001
SAISW-4/8S-M12 4P D-ZF	1803930001
SAIBM-4/8S-M12 4P D-ZF	1892130001

Accessories

Note
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Note
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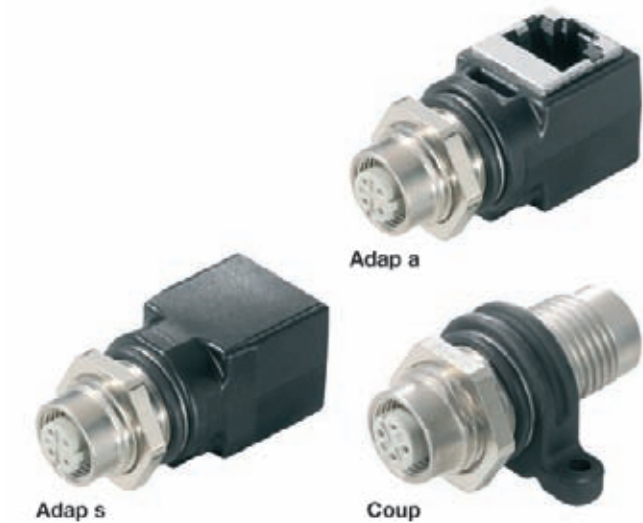
Technical data

Protection class	IP 67
Connection type	Tension clamp connection
Housing material	Brass
Contact tube diameter	M12
Cladding diameter, min. / max.	6 mm / 8 mm
Cross-section	0.25 ... 0.5 mm²
Operating temperature, min. / max.	-40 °C / 85 °C

Note:

M12 adapters and coupling

- Cat.5
- IP 67



Adaptors and couplings M12

Application:

Weidmüller's M12 adaptors and couplings should be used whenever you need to bring an M12 cable to the switchgear cabinet, or whenever you need to connect two M12 cables.

Variations:

- 8901630000: angled adapter from M12 female to RJ45-female; for mounting in wall of switchgear cabinet
- 8901620000: straight adapter from M12-female to RJ45-female; for mounting in wall of switchgear cabinet
- 8901640000: straight adapter from M12-female to RJ45-female; for surface mounting or exposed

Ordering data

Adapter	
	straight
	Angled
with Coupling	

Type	Order No.
IE-M12-ADAP S	8901620000
IE-M12-ADAP A	8901630000
IE-M12-COUP	8901640000

Accessories

Note	


Technical data

Category	Cat.5 (IEC 11801)
Protection class	IP 67
Configuration	M12-female to RJ45-female (adaptor), M12-female to M12-female (coupling)
Housing material	Polyamide, fully shielded metal housing
Shielding	360° shield contact
Operating temperature, min. / max.	-5 °C / 60 °C

Note:

M12 PCB connecting element

- Cat.5
- for device installation



M12 PCB connection element

Weidmüller PCB connection elements can be used for the equipment you use in the field. These permit the connection of M12 connectors with D-coded pin layout.

Variations:

- 8902810000: M12 female connector, for direct mount to PCB
- 8902820000: M12 female connector special, for additional snap-on to PCB

Ordering data

Connection element
THR
THT, Can be snapped on

Type	Order No.
IE-M12-PCBCE	8902810000
IE-M12-PCBCE-PANEL	8902820000

Accessories

Note

Technical data

Category	Cat.5 (IEC 11801)
Protection class	IP 65 according to DIN EN 60529
Configuration	Reflow compatible
Housing material	Polyamide, CuZn, nickel-plated
Shielding	360° shield contact
Operating temperature, min. / max.	-40 °C / -85 °C

Note:





# FrontCom®

**Communicating through the closed front panel of the switchgear cabinet, by using Weidmüller's front panel interface in IP65.**

Access to the computer is typically via standardized interfaces such as RJ45 and USB, in order to program and configure the facility. With IPC however, this interface is located within switchgear cabinet. Users must always first open the cabinet door before servicing. In conjunction with our customers, Weidmüller has developed an amazingly simple and practical solution for accessing devices within the cabinet without opening the cabinet door - the FrontCom® front panel interface. The front panel interface also functions as a service flap through which the standard interfaces are easily accessible externally.

Designed with IP65 protection, the front panel interface offers a cover which can be closed and locked. You can thus raise the level of security when needed and prevent access by a third party. In addition, FrontCom® has an efficient and open design. Customized interfaces and functions can be delivered pre-assembled as adapter plates, on customer request. The result is a quicker, simpler and more targeted approach to your system's implementation, service, monitoring and expansion. Because of a variety of available adapter solutions, FrontCom® accepts different interfaces and can be variably adapted for your application.



# FrontCom® simplifies service, start-up, and monitoring

## Create your customized service interface.

Weidmüller's FrontCom® product line offers many possibilities; it can be combined with RJ45, Sub-D 9-pole/15-pole/19-pole, USB or Schuko sockets. Additional interfaces available on request.

Both the proven RJ45 modules (from the IE line) with **STEADYTEC®** technology as well as the USB module can be used in the FrontCom® Micro.



FrontCom® Custom



FrontCom® RockStar®



FrontCom® Micro



Front panel interface

FrontCom® frame

- IP 65
- contains cover, frame, seals, fixings and designation tags, no insert

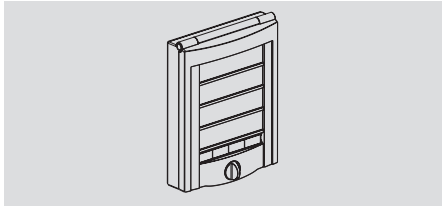
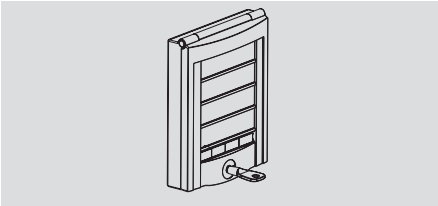
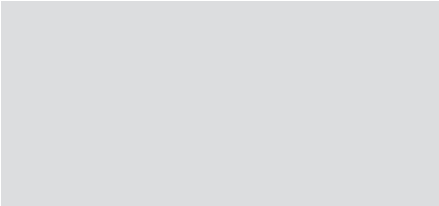
FrontCom® GH Key

lockable



FrontCom® GH Knob

lockable



Technical data

Version

Material

UL 94 flammability class

Colour

Resistance to shocks

Threaded bolts / screws

Durability

Ingress protection class

Pollution severity

Storage temperature

Lockable housing

PPE

V0

RAL 7004

to DIN EN 50102

M5 / V2A

UV; Fuel; Oil

IP65 according to EN 60529

3

-20 °C...+80 °C

Lockable housing

PPE

V0

RAL 7004

to DIN EN 50102

M5 / V2A

UV; Fuel; Oil

IP65 according to EN 60529

3

-20 °C...+80 °C

Length x width x height

mm

Note

33 x 101 x 136

With 2 keys, without insert

33 x 101 x 136

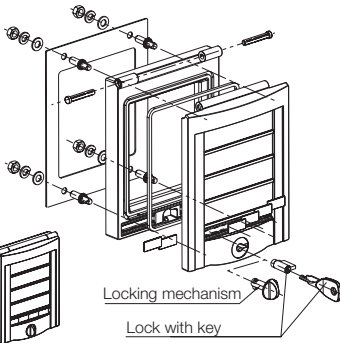
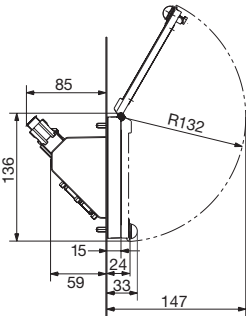
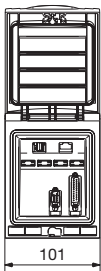
with lock, without insert

Ordering data

Type	Qty.	Order No.
FRONTCOM GH KEY	1	1879200000
<div> <div>Designation tags ESG8/17 1720610000</div> <div>Felt pen STI-S 0508401694</div> </div>		

Type	Qty.	Order No.
FRONTCOM GH KNOB	1	1879210000
<div> <div>Designation tags ESG8/17 1720610000</div> <div>Felt pen STI-S 0508401694</div> </div>		

Application



FrontCom® Inserts

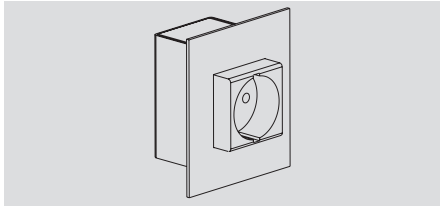
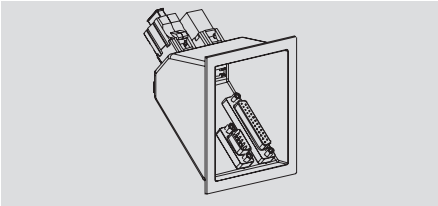
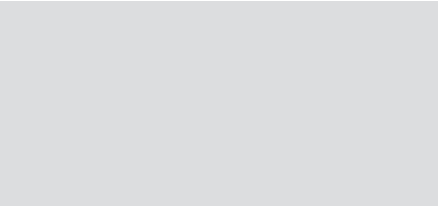
- IP 65
- Inserts for FrontCom® frames

FrontCom® AR Data

RJ45, USB, SUB D 9+25 pole

FrontCom® AR Plug

Adapter for 230 V earthed plug



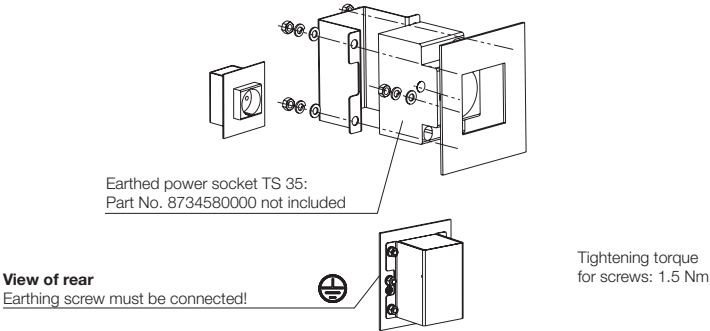
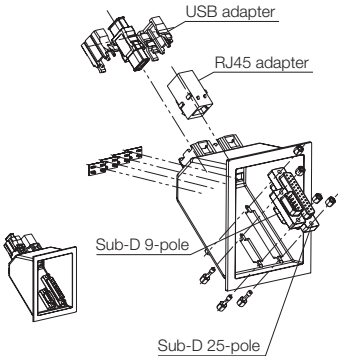
Technical data

Version	Combination of four integrated data interfaces	Frame includes a Schuko socket
Material	Wired 1:1	
UL 94 flammability class	PPE	Stainless steel
Colour	V0	
Storage temperature	RAL 7004	
Interfaces	-20 °C...+80 °C	-20 °C...+80 °C
	1 x USB: type A, female-female, Lockable with inserted USB stick	230 V Schuko socket
	1 x RJ45: female-female, Cat.From 5 to 100 MHz	
	1 x SUB D 9-pole: female-male	
	1 x SUB D 25-pole: female-male	
Length x width x height	85 x 101 x 136	59 x 101 x 136
Note		

Ordering data

Type	Qty.	Order No.	Type	Qty.	Order No.
FRONTCOM AR DATA	1	1879220000	FRONTCOM AR PLUG	1	1879230000
Note	Designation tags ESG8/17 1720610000 Felt pen STI-S 0508401694		Earthed power socket 8734580000		

Application



Front panel interface

FrontCom® Inserts

- IP 65
- Inserts for FrontCom® frames

FrontCom® AR

Universal



Classic



Technical data

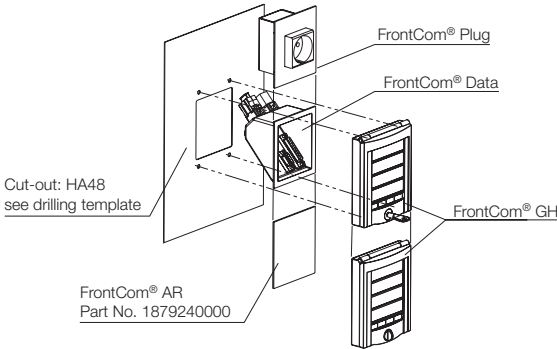
Version	Universal plate without cut-outs	Aluminium plate, completely assembled
Material	Aluminium	Aluminium
UL 94 flammability class	V0	
Storage temperature	-20 °C...+80 °C	-20 °C...+80 °C
Interfaces	Universal	1x Schuko socket 1x RJ45, female-female 1x USB, Type A, female-female 1x SUB D 9-pole, male-female

Length x width x height	mm	2,5 x 101 x 136	136 x 101 x 35
Note			

Ordering data

Type	Qty.	Order No.	Type	Qty.	Order No.
FRONTCOM AR	1	1879240000	FC-AR-D9/RJ45/USB/230	1	1008130000
Note					

Application





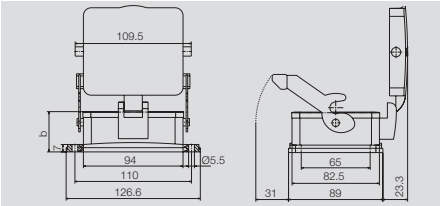
FrontCom® frame and insert

FrontCom® RockStar®

FrontCom® RockStar®

Frame

Insert



Technical data

Version  
Material  
Resistance to shocks  
Ingress protection class  
Storage temperature  
Interfaces

Lockable housing  
diecast aluminium  
to DIN EN 50102  
IP65 according to EN 60529  
-40 °C...+100 °C

Aluminium plate, completely assembled  
Aluminium  
  
-20 °C...+80 °C  
1x Schuko socket  
1x RJ45, female-female  
1x USB, Type A, female-female  
1x SUB D 9-pole, male-female

Length x width x height mm  
**Note**

74 x 85 x 35

Ordering data

Type	Qty.	Order No.
HDC 32B ADLU	1	1219800000

Type	Qty.	Order No.
FC-RS-D9/RJ45/USB/23	1	1008120000

**Note**

Application



Front panel interface – Accessories

Base plates



Inserts



Base plates

Type	Order No.
Frontcom Standard base plate	4341150000
Frontcom RockStar base plate	4341160000

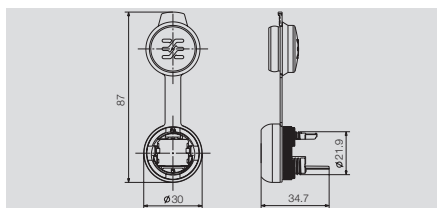
FrontCom® Custom and RockStar®

Type	Order No.
Insert for RJ45 coupling0	4341270000
Insert for USB coupling	8941340000
Insert for Sub-D 9-pole plug/socket0	8910980000
Insert for Sub-D 9-pole plug/plug	5655400000
Insert for Sub-D 9-pole socket/socket	5655390000
Insert for Sub-D 15-pole plug/plug	5655410000
Insert for Sub-D 15-pole socket/socket	5655420000
Insert for Sub-D 25-pole plug/plug	5655430000
Insert for Sub-D 25-pole plug/socket	5655440000
Insert for Sub-D 25-pole socket/socket	5655450000
Einsatz Sub-D 25-pol Buchse/Buchse	5655460000

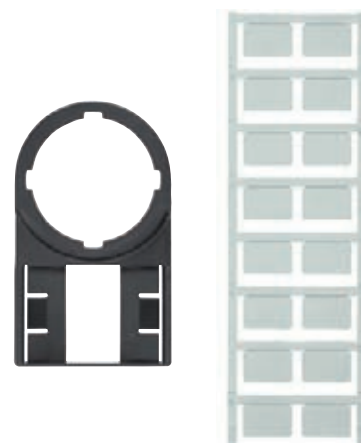
## FrontCom® Micro

- Cat.6A
- IP 65

## FrontCom® Micro



## Markers, FrontCom® Micro



## Technical data

Category  
Protection class  
Housing material  
Colour  
Shielding  
Installation  
Plugging cycles

Cat. 6A / Class E<sub>A</sub> (IEC 11801 PDAM Am 1.2 2007)  
IP 65 gemäß EN 60529  
PA; UL 94: V-0 (Protective cap NBR)  
black  
360° shield contact  
to electrical cabinet, distribution board or control panel  
750 plugging cycles for connectors, according to IEC 60603-7

## Application:

Weidmüller's FrontCom® Micros are your best choice when you need an IP65 connection at the control panel, electrical cabinet or distribution board.

## The differences:

- 1018790000: Coupling insert for RJ45 to RJ45, straight version
- 1018810000: RJ45 module insert for connecting AWG 26 – AWG 22 wires; colour coding according to EIA/TIA 568 A
- 1018820000: RJ45 module insert for connecting wires from AWG 26 to AWG 22; colour coding according to EIA/TIA 568 B
- 1018830000: RJ45 module insert for connecting wires from AWG 26 to AWG 22; colour coding according to industrial Ethernet
- 1018840000: Coupling insert for USB to USB

## Ordering data

Product description  
FrontCom® Micro RJ45 Coupling  
FrontCom® Micro RJ45, TIA-A Module  
FrontCom® Micro RJ45, TIA-B Module  
FrontCom® Micro RJ45, Industrial Ethernet Module  
FrontCom® USB Coupling  
SwitchMark holder  
SwitchMark markers, white

Type	Order No.
IE-FCM-RJ45-C	1018790000
IE-FCM-RJ45-FJ-A	1018810000
IE-FCM-RJ45-FJ-B	1018820000
IE-FCM-RJ45-FJ-P	1018830000
IE-FCM-USB-A	1018840000
SM-H 27/18	1716630000
SM 27/18 MC	1699860000

Note: Refer to Catalogue 7 for additional variants.

