



# Hirschmann Accessories

## Selection Guide

A wide range of system accessories that perfectly support industrial Ethernet and wireless solutions.

- +** **Increased flexibility** – a wide range of SFP and XFP transceivers that perfectly support Hirschmann’s industrial Ethernet solutions for reliable performance.
- +** **Simple plug-and-play** – after connecting the ACA, the new switch loads and saves the complete configuration and software.
- +** **Reliable power source** – for sensitive loads in many industrial automation environments where equipment is exposed to harsh conditions.
- +** **High-efficiency** – PoE injectors can satisfy the growing demand of energy-hungry devices.

### Accessories

- SFP and XFP Transceivers
- Power Supplies and Cables
- PoE Injectors
- Modular Industrial Patch Panel (MIPP)
- Auto-Configuration Adapters
- Terminal Cables
- Connectors
- Mounting Accessories
- Wireless Accessories
- Miscellaneous Accessories





## SFP and XFP Transceivers

Hirschmann's high quality Small Form-factor Pluggable (SFP) and 10 Gigabit Small Form Factor Pluggable (XFP) transceivers are tested and approved and are also working under the same environmental conditions like our switches. Transceivers are a crucial part of the network, which is why Hirschmann switches only support Hirschmann SFP and XFP transceivers.

### Fast Ethernet SFP Transceivers



Product Name	Order Number	Data Rate	Connector	Distance*, Fiber	Operating Temperature
M-Fast SFP-TX/RJ45	942 098-001	100 Mbit/s	RJ45	100 m	0 to +60 °C
M-Fast SFP-TX/RJ45 EEC	942 098-002	100 Mbit/s	RJ45	100 m	-40 to +85 °C
M-FAST SFP-MM/LC	943 865-001	100 Mbit/s	LC	5 km, 50/125 µm MM 4 km, 62.5/12.5 µm MM	0 to +60 °C
M-FAST SFP-MM/LC EEC	943 945-001	100 Mbit/s	LC	5 km, 50/125 µm MM 4 km, 62.5/12.5 µm MM	-40 to +85 °C
M-FAST SFP-SM/LC	943 866-001	100 Mbit/s	LC	25 km, 9/125 µm SM	0 to +60 °C
M-FAST SFP-SM/LC EEC	943 946-001	100 Mbit/s	LC	25 km, 9/125 µm SM	-40 to +85 °C
M-FAST SFP-SM+/LC	943 867-001	100 Mbit/s	LC	25 to 65 km, 9/125 µm SM	0 to +60 °C
M-FAST SFP-SM+/LC EEC	943 947-001	100 Mbit/s	LC	25 to 65 km, 9/125 µm SM	-40 to +85 °C
M-FAST SFP-LH/LC	943 868-001	100 Mbit/s	LC	55 to 140 km, 9/125 µm SM	0 to +60 °C
M-FAST SFP-LH/LC EEC	943 948-001	100 Mbit/s	LC	55 to 140 km, 9/125 µm SM	-40 to +85 °C
SFP-FAST-MM/LC	942 194-001	100 Mbit/s	LC	5 km, 50/125 µm MM 4 km, 62.5/12.5 µm MM	0 to +60 °C
SFP-FAST-MM/LC EEC	942 194-002	100 Mbit/s	LC	5 km, 50/125 µm MM 4 km, 62.5/12.5 µm MM	-40 to +85 °C
SFP-FAST-SM/LC	942 195-001	100 Mbit/s	LC	25 km, 9/125 µm SM	0 to +60 °C
SFP-FAST-SM/LC EEC	942 195-002	100 Mbit/s	LC	25 km, 9/125 µm SM	-40 to 85 °C

### Fast Ethernet Bi-Directional SFP Transceivers



Product Name	Order Number	Data Rate	Connector	Distance*, Fiber	Operating Temperature
SFP-FAST-BA MM/LC EEC	942 204-001	100 Mbit/s	LC	2 km, 50/125 µm MM 2 km, 62.5/12.5 µm MM	-40 to +85 °C
SFP-FAST-BB MM/LC EEC	942 204-002	100 Mbit/s	LC	2 km, 50/125 µm MM 2 km, 62.5/12.5 µm MM	-40 to +85 °C
SFP-FAST-BA SM/LC EEC	942 205-001	100 Mbit/s	LC	20 km, 9/125 µm SM	-40 to +85 °C
SFP-FAST-BB SM/LC EEC	942 205-002	100 Mbit/s	LC	20 km, 9/125 µm SM	-40 to +85 °C
SFP-FAST-BA SM+/LC EEC	942 206-001	100 Mbit/s	LC	60 km, 9/125 µm SM	-40 to +85 °C
SFP-FAST-BB SM+/LC EEC	942 206-002	100 Mbit/s	LC	60 km, 9/125 µm SM	-40 to +85 °C

### Gigabit Ethernet SFP Transceivers



Product Name	Order Number	Data Rate	Connector	Distance*, Fiber	Operating Temperature
M-SFP-SX/LC	943 014-001	1000 Mbit/s	LC	550 m, 50/125 µm MM 275 m, 62.5/125 µm MM	0 to +60 °C
M-SFP-SX/LC EEC	943 896-001	1000 Mbit/s	LC	550 m, 50/125 µm MM 275 m, 62.5/125 µm MM	-40 to +85 °C
M-SFP-LX/LC	943 015-001	1000 Mbit/s	LC	550 m, 50/125 µm MM 550 m, 62.5/125 µm MM 20 km, 9/125 µm SM	0 to +60 °C
M-SFP-LX/LC EEC	943 897-001	1000 Mbit/s	LC	550 m, 50/125 µm MM 550 m, 62.5/125 µm MM 20 km, 9/125 µm SM	-40 to +85 °C
M-SFP-MX/LC EEC	942 108-001	1000 Mbit/s	LC	1.5 km, 50/125 µm MM 500 m, 62.5/125 µm MM	-40 to +85 °C
M-SFP-LX+/LC	942 023-001	1000 Mbit/s	LC	5 to 42 km, 9/125 µm SM	0 to +60 °C
M-SFP-LX+/LC EEC	942 024-001	1000 Mbit/s	LC	5 to 42 km, 9/125 µm SM	-40 to +85 °C
M-SFP-LH/LC	943 042-001	1000 Mbit/s	LC	16 to 80 km, 9/125 µm SM	0 to +60 °C
M-SFP-LH/LC-EEC	943 898-001	1000 Mbit/s	LC	16 to 80 km, 9/125 µm SM	-40 to +85 °C
M-SFP-LH+/LC	943 049-001	1000 Mbit/s	LC	44 to 120 km, 9/125 µm SM	0 to +60 °C
M-SFP-LH+/LC EEC	942 119-001	1000 Mbit/s	LC	44 to 120 km, 9/125 µm SM	-40 to +85 °C
M-SFP-TX/RJ45	943 977-001	1000 Mbit/s	RJ45	100 m	0 to +60 °C
M-SFP-TX/RJ45 EEC	942 161-001	1000 Mbit/s	RJ45	100 m	-40 to +85 °C

### Gigabit Ethernet SFP Transceivers



Product Name	Order Number	Data Rate	Connector	Distance*, Fiber	Operating Temperature
SFP-GIG-LX/LC	942 196-001	1000 Mbit/s	LC	550 m, 50/125 µm MM 550 m, 62.5/125 µm MM 20 km, 9/125 µm SM	0 to +60 °C
SFP-GIG-LX/LC EEC	942 196-002	1000 Mbit/s	LC	550 m, 50/125 µm MM 550 m, 62.5/125 µm MM 20 km, 9/125 µm SM	-40 to +85 °C

### Gigabit Ethernet Bi-Directional SFP Transceivers



Product Name	Order Number	Data Rate	Connector	Distance*, Fiber	Operating Temperature
M-SFP-BIDI-Bundle LX/LC EEC	943 974-101	1000 Mbit/s	LC	20 km, 9/125 µm SM	-40 to +85 °C
M-SFP-BIDI-Bundle LH/LC EEC	943 975-101	1000 Mbit/s	LC	23 to 80 km, 9/125 µm SM	-40 to +85 °C
M-SFP-BIDIType ALH/LC EEC	943 975-001	1000 Mbit/s	LC	23 to 80 km, 9/125 µm SM	-40 to +85 °C
M-SFP-BIDIType ALX/LC EEC	943 974-001	1000 Mbit/s	LC	20 km, 9/125 µm SM	-40 to +85 °C
M-SFP-BIDIType BLH/LC EEC	943 975-002	1000 Mbit/s	LC	23 to 80 km, 9/125 µm SM	-40 to +85 °C
M-SFP-BIDIType BLX/LC EEC	943 974-002	1000 Mbit/s	LC	20 km, 9/125 µm SM	-40 to +85 °C
SFP-GIG-BA LX/LC EEC	942 207-001	1000 Mbit/s	LC	20 km, 9/125 µm SM	-40 to +85 °C
SFP-GIG-BB LX/LC EEC	942 207-002	1000 Mbit/s	LC	20 km, 9/125 µm SM	-40 to +85 °C
SFP-GIG-BA LX+/LC EEC	942 208-001	1000 Mbit/s	LC	12 to 40 km, 9/125 µm SM	-40 to +85 °C
SFP-GIG-BB LX+/LC EEC	942 208-002	1000 Mbit/s	LC	12 to 40 km, 9/125 µm SM	-40 to +85 °C
SFP-GIG-BA LH/LC EEC	942 209-001	1000 Mbit/s	LC	19 to 80 km, 9/125 µm SM	-40 to +85 °C
SFP-GIG-BB LH/LC EEC	942 209-002	1000 Mbit/s	LC	19 to 80 km, 9/125 µm SM	-40 to +85 °C

### 2.5 Gigabit Ethernet SFP Transceivers



Product Name	Order Number	Data Rate	Connector	Distance*, Fiber	Operating Temperature
M-SFP-2.5-MM/LC EEC	942 162-001	2500 Mbit/s	LC	550 m, 50/125 µm MM 170 m, 62.5/125 µm MM	-40 to +85 °C
M-SFP-2.5-SM-/LC EEC	942 163-001	2500 Mbit/s	LC	5 km, 9/125 µm SM	-40 to +85 °C
M-SFP-2.5-SM/LC EEC	942 164-001	2500 Mbit/s	LC	20 km, 9/125 µm SM	-40 to +85 °C
M-SFP-2.5-SM+/LC EEC	942 165-001	2500 Mbit/s	LC	21 to 45 km, 9/125 µm SM	-40 to +85 °C
M-SFP-2.5-LH/LC	942 220-001	2500 Mbit/s	LC	80 km, 9/125 µm SM	0 to +60 °C

### 10 Gigabit Ethernet XFP and SFP+ Transceivers



Product Name	Order Number	Data Rate	Connector	Distance*, Fiber	Operating Temperature
M-XFP-SR/LC	943 917-001	10000 Mbit/s	LC	300 m, 50/125 µm MM 33m, 62.5/125µmMM	0 to +60 °C
M-XFP SR/LC EEC	942 054-001	10000 Mbit/s	LC	300 m, 50/125 µm MM 33m, 62.5/125µmMM	-40 to +85 °C
M-XFP-LR/LC	943 919-001	10000 Mbit/s	LC	10 km, 9/125 µm SM	0 to +60 °C
M-XFP LR/LC EEC	942 055-001	10000 Mbit/s	LC	10 km, 9/125 µm SM	-40 to +85 °C
M-XFP-ER/LC	943 920-001	10000 Mbit/s	LC	10 to 40 km, 9/125 µm SM	0 to +60 °C
M-XFP ER/LC EEC	942 056-001	10000 Mbit/s	LC	10 to 40 km, 9/125 µm SM	-40 to +85 °C
M-XFP-ZR/LC	943 921-001	10000 Mbit/s	LC	40 to 80 km, 9/125 µm SM	0 to +60 °C
M-SFP-10-SR/LC EEC	942 210-001	10000 Mbit/s	LC	300 m, 50/125 µm MM 33m, 62.5/125µmMM	-40 to +85 °C
M-SFP-10-LR/LC EEC	942 211-001	10000 Mbit/s	LC	10 km, 9/125 µm SM	-40 to +85 °C
M-SFP-10-ER/LC EEC	942 212-001	10000 Mbit/s	LC	10 to 40 km, 9/125 µm SM	-40 to +85 °C
M-SFP-10-ZR/LC	942 213-001	10000 Mbit/s	LC	40 to 80 km, 9/125 µm SM	-5 to +85 °C

\*Achievable distance depends on selected fiber optic.



## Power Supplies and Cables

Hirschmann offers a wide range of AC and DC power supplies. Units with AC power input ranges extending from 100-240 V AC and 100-375 V DC are available. Units are also available that transform to either 24 V DC or 48 V DC. For applications where wa- ter might be present, two IP67 models are available. Convenient DIN-Rail mounting is available. The Hirschmann power supply products have been tested for electromagnetic interference and for safety. They have all of the relevant approvals. The products offer a reliable power source for sensitive loads in many industrial automation environments where equipment is exposed to harsh conditions.

### Power Supplies



RPS 30 RPS 120 EEC (CC)



RPS 260/PoE EEC RPS 90/48V HV



PC150/72V/48V-IP67

Product Name	Order Number	Description
RPS 15	943 662-015	Din-Rail power supply, 15W output power, 24 VDC output voltage, 100-240 V AC input voltage, operating temperature -10 °C up to +70 °C
RPS 30	943 662-003	Din-Rail power supply, 30 W output power, 24 VDC output voltage, 100-240 V AC input voltage, operating temperature -10 °C up to +70 °C
RPS 80 EEC	943 662-080	Din-Rail power supply, 80 W output power, 24 VDC output voltage, 100-240 V AC input voltage, operating temperature -25 °C up to +70 °C
RPS 120 EEC (CC)	943 662-121	Din-Rail power supply, 120 W output power, 24 VDC output voltage, 100-240 V AC input voltage, operating temperature -25 °C up to +70 °C, conformal coating
RPS 60/48V EEC	943 952-001	Din-Rail PoE power supply, 60 W output power, 48 VDC output voltage, 100-240 V AC input voltage, operating temperature -20 °C up to +70 °C
RPS 90/48V HV	943 979-001	Din-Rail PoE power supply, 90 W output power, 48 VDC output voltage, 110-230 V AC input voltage, operating temperature -40 °C up to +70 °C
RPS 90/48V LV	943 980-001	Din-Rail PoE power supply, 90 W output power, 48 VDC output voltage, 24-48 VDC input voltage, operating temperature -40 °C up to +70 °C
RPS 260/PoE EEC	942 200-001	Din-Rail PoE power supply, 260 W output power, 48 VDC output voltage, 100-240 V AC input voltage, operating temperature -25 °C up to +70 °C
PSW 5-20	943 008-001	Plug-in power supply, 10 W output power, 5 VDC output voltage, 90-260 V AC input voltage, operating temperature 0 °C up to +40 °C
PC150/36V/48V-IP67	943 968-001	IP67 PoE power supply, 150 W output power, 48 VDC output voltage, 24-48 VDC input voltage, operating temperature -40 °C up to +70 °C
PC150/72V/48V-IP67	943 968-001	IP67 PoE power supply, 150 W output power, 48 VDC output voltage, 72-110V DC input voltage, operating temperature -40 °C up to +70 °C

### Power Cables



Power Cord - Safety Plug, 1.5m

Product Name	Order Number	Description
M4-POWERCABLE	943 922-001	Spare power cable for use between M4-POWER chassis and MACH 4002 basic device, length 1m, Side A: Socket, angled, Side B: Connector, angled
M4-POWERCABLE II	943 922-101	Spare power cable for use between M4-POWER chassis and MACH 4002 basic device, length 1m, Side A: Socket, straight, Side B: Connector, straight
Power Cord	942 000-001	Connection cable to power switches with high voltage power supply (MACH1000, RSPx, RSR and GREYHOUND), length 2m, Side A: 3-pin female connector, Side B: 3 conductors
Power Cord - Safety Plug, 1.5m	942 067-001	Connection cable to power switches with high voltage power supply (MACH1000, RSPx, RSR and GREYHOUND), length 1.5m, Side A: 3-pin female connector, Side B: Safety Plug (CEE 7/4)
Power Cord - Safety Plug, 2.5m	942 067-101	Connection cable to power switches with high voltage power supply (MACH1000, RSPx, RSR and GREYHOUND), length 2.5m, Side A: 3-pin female connector, Side B: Safety Plug (CEE 7/4)
Power Cord Brazil	942 039-001	Connection cable to power MACH100 switches with high voltage power supply, length 3m, Side A: IEC 60320 C13 socket, Side B: NBR 14136 connector (Brazil)

## PoE Injectors

Power over Ethernet (PoE) injectors provide power to networked terminal devices without having to replace existing Ethernet switches or purchasing a stand-alone power supply – a solution that is both practical and cost-effective. For new or retrofit applications in need of maximum power without device limitations, these PoE/PoE+ injectors provide a high port count and up to 240 W of power.

### PoE/PoE+ Injectors with Optional Power Supply Capabilities



RPI-P1-8PoE, PoE Injector



RPI-A1-8PoE, PoE Injector

Product Name	Order Number	Description
RPI-A1-4PoE, PoE Injector	942 226-001	4 FE/Gig PoE/PoE+ ports, 30W per port, 100-240 V AC and 110-150 V DC input voltage, operating temperature -25 °C up to +70 °C
RPI-A1-8PoE, PoE Injector	942 224-001	8 FE/Gig PoE/PoE+ ports, 30W per port, 100-240 V AC and 110-150 V DC input voltage, operating temperature -25 °C up to +70 °C
RPI-P1-4PoE, PoE Injector	942 227-001	4 FE/Gig PoE/PoE+ ports, 30W per port, 48-56 V DC input voltage, operating temperature -40 °C up to +70 °C
RPI-P1-8PoE, PoE Injector	942 225-001	8 FE/Gig PoE/PoE+ ports, 30W per port, 48-56 V DC input voltage, operating temperature -40 °C up to +70 °C
SPIDER Giga 2TX PoE EEC	942 059-001	1 FE/Gig PoE/PoE+ ports, 30W per port, 24-48 V DC input voltage, operating temperature -40 °C up to +70 °C

## MIPP – The Industrial Termination and Patching Solution

MIPP (Modular Industrial Patch Panel) is a robust and versatile termination panel for both fiber and copper cables that need to be connected from operating environment to active equipment. It can be easily installed on any standard 35mm DIN rail, or wall mounted. MIPP offers high port-density with up to 72 fiber cables, wide temperature range from -20 °C to +70 °C, durable UL 1863 certified with a guaranteed lifetime over 10 years, and resistant to shocks and vibrations. As configurable product, MIPP provides you an abundant scale of pre-terminated configurators, and can be ordered as open variant by product number 942 082-998 with the configuration.



Fiber Splice Box



Copper Patch Panel



MIPP Mix



Pre-Terminated MPO Cassette

Product Name	Description	Type of Adapters	Fiber Applications
MIPP Fiber Splice Box	Splice tray and multiple fingers for easy fiber management, up to 3 cable entries for single fiber module, ideal for ring topology applications, high port density with up to 72 fiber counts (for a single MIPP).	Support for optical duplex adapters in plastic (LC, SC, ST, E2000), and in metal (SC, ST). Single and double fiber modules.	<ul style="list-style-type: none"> <li>Multimode: OM1, OM2, OM3 and OM4</li> <li>Singlemode: OS2 and OS2/APC</li> </ul>
MIPP Copper Patch Panel	Copper Patch Panel ensures maximum reliability for Industrial Ethernet and PROF-INET networks.	<ul style="list-style-type: none"> <li>RJ45 copper keystone jacks (unshielded and shielded, Cat5e, Cat 6, Cat 6A)</li> <li>RJ45 copper coupler (unshielded and shielded, Cat 6A)</li> </ul>	NA
MIPP Mix	Both fiber and copper cables in a single solution. Up to 6 single modules, 3 double modules (fiber only) or a combination can be used in one MIPP.	All available of Fiber Splice Box and Copper	<ul style="list-style-type: none"> <li>Multimode: OM1, OM2, OM3 and OM4</li> <li>Singlemode: OS2 and OS2/APC</li> </ul>
MIPP Pre-Terminated MPO Cassette	Multi Fiber Push On (MPO) Cassette, 100% pre-tested compact and rugged design, efficient, fast and reliable plug & play one-person installation, no need to splice, cleave or polish when installing. Temperature range from -10°C to +60°C. Up to 6 single modules with 72 fiber counts (for a single MIPP), combination with fiber and copper possible.	<b>Patch Side</b> <ul style="list-style-type: none"> <li>LC Duplex</li> <li>LC/APC Duplex</li> <li>LC Duplex w/ Shutters</li> <li>LC/APC Duplex w/ Shutters</li> <li>SC Duplex</li> <li>SC/APC Duplex</li> <li>SC Duplex w/ Shutters</li> <li>SC/APC Duplex w/ Shutters</li> <li>ST Duplex</li> </ul> <b>Trunk Side</b> <ul style="list-style-type: none"> <li>1-Port MPO-12 (m)</li> <li>1-Port MPO-12 (f)</li> </ul>	<ul style="list-style-type: none"> <li>Multimode: OM1, OM2, OM3 and OM4</li> <li>Singlemode: OS2 and OS2/APC</li> </ul> <b>Polarity</b> <ul style="list-style-type: none"> <li>Type - A</li> <li>Type - AALT</li> <li>Type - B</li> <li>Type - C</li> </ul>



## Auto-Configuration Adapter – ACA

The ACA storage mediums enable managed switches, firewalls and wireless access points to be easily commissioned and quickly replaced. The following operations are supported:

- Transferring the current configuration data from an Ethernet device to the ACA storage medium
- Transferring the configuration data from the ACA storage medium to an Ethernet device
- Updating the software of an Ethernet device



Product Name	Order Number	Description
ACA11-RJ11 EEC	943 751-002	Auto-configuration adapter, with RJ11 RS232 interface and extended temperature ranges
ACA11-M12 EEC	943 972-001	Auto-configuration adapter, with M12 interface and extended temperature range
ACA21-USB EEC	943 271-003	Auto-configuration adapter 512 MB, with USB 1.1 connection and extended temperature range
ACA21-M12 EEC	943 913-003	Auto-configuration adapter 64 MB, with M12 (USB 1.1) interface and extended temperature range
ACA22-USB EEC	942 124-001	Auto-configuration adapter 512 MB, with USB 2.0 connection and extended temperature range
ACA22A-USB Mini	942 152-001	Cordless Auto-configuration adapter 512 MB with USB 2.0 connection
ACA22-M12 EEC	942 125-001	Auto-configuration adapter 512 MB, with M12 (USB 2.0) interface and extended temperature range
ACA22-M12 EEC (right-angled)	942 125-002	Auto-configuration adapter 512 MB, with M12 (USB 2.0) interface and extended temperature range, right-angled
ACA31	942 074-001	Auto-configuration adapter, SD card with 512 MB, extended temperature range
Adapter Cable, M12-5pin to USB	942 199-001	Adapter cable to transfer files between an auto-configuration adapter (ACA21-M12 EEC or ACA22-M12 EEC) and a computer. Side A: M12 "A"-coded 5-pin socket Side B: USB A-Type connector

## Supported Auto-configuration Adapters

Product Family	ACA11-RJ11 EEC	ACA11-M12 EEC	ACA21-M12 EEC	ACA21-USB EEC	ACA22A-USB Mini	ACA22-M12 EEC	ACA22-M12 EEC (right-angled)	ACA22-USB EEC	ACA31
SPIDER III PL				x	x			x	
OCTOPUS 8TX			x			x	x		
RSB	x								
RS20/30/40	x*			x	x			x	
RSR				x	x			x	
MS20/30	x*			x	x			x	
MSP30									x
MSP40					x			x	x
RED				x	x			x	
RSP/RSPL/RSPS									x
RSPE				x	x			x	x
MACH100				x	x			x	
MACH1000				x	x			x	
MACH4000				x	x			x	
GRS1020/1030				x	x			x	
GRS1040					x			x	x
OCTOPUS		x**	x			x	x		
OCTOPUS II			x			x	x		
EagleOne				x					
EAGLE20/30								x	x
OpenBAT-R				x				x	
OpenBAT-F			x			x	x		
BAT450-F		x							

\*limited write support

\*\*ACA only supported by 942 025-005/-006/-007/-008

## Terminal Cables

Terminal cables enable a local connection from an external management station (PC with corresponding terminal emulation) to the serial interface of a network device (Ethernet switch, wireless access point or firewall). This gives you the option to set up a connection to the Command Line Interface (CLI) and to the system monitor.



Terminal Cable, RJ11 to DB9

Product Name	Order Number	Description
Terminal Cable, RJ11 to DB9	943 301-001	Terminal cable, Side A: RJ11 connector, Side B: Sub-D connector, 9-pin
Terminal Cable, RJ45 to USB	942 096-001	Terminal cable, Side A: RJ45 connector, Side B: USB A-Type connector
Terminal Cable, RJ45 to DB9	942 097-001	Terminal cable, Side A: RJ45 connector, Side B: Sub-D connector, 9-pin
Terminal Cable, M12-4pin to DB9	943 902-001	Terminal cable, Side A: M12 "A"-coded 4-pin connector, Side B: Sub-D connector, 9-pin
Terminal Cable, M12-8pin to DB9	942 087-001	Terminal cable, Side A: M12 "A"-coded 8-pin connector, Side B: Sub-D connector, 9-pin

## Supported Terminal Cables

Product Family	Terminal Cable RJ11 to DB9	Terminal Cable RJ45 to USB	Terminal Cable RJ45 to DB9	Terminal Cable M12-4pin to DB9	Terminal Cable M12-8pin to DB9
RSB	x				
RS20/30/40	x				
RSR	x				
MS20/30	x				
MSP30/40		x	x		
RED	x				
RSP/RSPL/RSPS/RSPE	x				
MACH100	x				
MACH1000	x				
MACH4000	x				
GRS1020/1030/1040		X	x		
OCTOPUS (II)				x	
EagleOne	x				
EAGLE20/30	x				
OpenBAT-R/-F					x
BAT450-F				x	

## Connectors

Hirschmann's Ethernet and power supply connectors and sockets are suitable for OCTOPUS IP65/67 switches and wireless LAN devices.





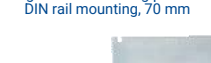








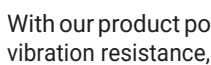
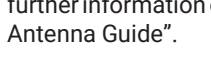




Product Name	Order Number	Description
0986 EMC 105	942 040-001	Field attachable Fast Ethernet connector, M12 male, 4-pole, "D"-coded, spring type
0986 EFC 107	942 078-001	Field attachable Fast Ethernet connector, M12 female, 4-pole, "D"-coded, spring type
BRSCIS 4D/9	942 159-001	Field attachable Fast Ethernet connector, M12 male, 4-pole, "D"-coded, IDC (Insulation Displacement Connector)
EM12G OCTOPUS	942 083-001	Field attachable Gigabit Ethernet connector, M12 male, 8-pole, "X"-coded
OCTOPUS M12-MiniPower Adaptor	943 944-001	Adapter cable, Side A: M12 "A"-coded 5-pin socket, Side B: 7/8 connector, 4-pole
RKC30/9, 7/8" socket	942 086-003	Field attachable 7/8 socket for supply voltage, 3-pole, for cable diameters 0.24 in. to 0.32 in. (6 mm to 8 mm)
RKC40/9, 7/8" socket	942 086-004	Field attachable 7/8 socket for supply voltage, 4-pole, for cable diameters 0.24 in. to 0.32 in. (6 mm to 8 mm)
RKC50/9, 7/8" socket	942 086-005	Field attachable 7/8 socket for supply voltage, 5-pole, for cable diameters 0.24 in. to 0.32 in. (6 mm to 8 mm)



## Mounting Accessories

A broad range of mounting accessories offer you a high flexibility when you mount Hirschmann devices. These specifically designed adapters and kits allow you to not only mount Hirschmann devices on a standard DIN-Rail but also on a wall, a 19" cabinet or a mast.

### Mounting Adapters and Kits

	Product Name	Order Number	Description
	<b>19" DIN Rail Adapter</b>	943 766-002	Installation rack for 19" cabinet, 8 units wide and 4 units high
	<b>Angled wall mounting plate for DIN rail mounting, 40 mm</b>	942 177-001	Fixture to laterally mount DIN Rail devices with a maximum width of 40 mm (e.g. SPIDER I/II, SPIDER SL) on a vertical flat surface
	<b>Angled wall mounting plate for DIN rail mounting, 70 mm</b>	942 177-002	Fixture to laterally mount DIN Rail devices with a maximum width of 70 mm (e.g. SPIDER PL, EagleOne) on a vertical flat surface
	<b>Wall mounting plate for DIN rail mounting, 60 mm</b>	943 971-003	Fixture to mount DIN Rail devices with a maximum width of 60 mm (e.g. SPIDER, EagleOne, BAT867-R) on a vertical flat surface
	<b>Wall mounting plate for DIN rail mounting, 90 mm</b>	943 971-002	Fixture to mount DIN Rail devices with a maximum width of 90 mm (e.g. RS20-08) on a vertical flat surface
	<b>Wall mounting plate for DIN rail mounting, 120 mm</b>	943 971-001	Fixture to mount DIN Rail devices with a maximum width of 120 mm (e.g. RSR) on a vertical flat surface
	<b>Wall mounting plate for DIN rail mounting, 150 mm</b>	943 971-004	Fixture to mount DIN Rail devices with a maximum width of 150 mm (e.g. OpenBAT-R) on a vertical flat surface
	<b>Wall mounting plate for screw mounting</b>	942 114-001	Fixture to mount RSP/RSPL/RSPS and EAGLE20/30 devices on a vertical flat surface
	<b>M4-RACKMOUNT, Brackets 19" (10 pcs)</b>	943 951-101	Brackets for mounting the MACH4000 in a 19" cabinet
	<b>M4-RACKMOUNT-50, Brackets 19" (10 pcs)</b>	943 951-001	Brackets for mounting the MACH4000 in a 19" cabinet, 50 mm lower than with 943 951-101
	<b>MACH100/1000 fixing brackets</b>	943 943-001	Brackets for mounting MACH100/1000 in a 19" cabinet
	<b>MACH100/1000 fixing brackets (extension + 50 mm)</b>	943 943-101	Brackets for mounting MACH100/1000 in a 19" cabinet, moves the device 50 mm backwards
	<b>MACH100/1000 fixing brackets (extension + 80 mm)</b>	943 943-201	Brackets for mounting MACH100/1000 in a 19" cabinet, moves the device 80 mm backwards
	<b>Mast mounting set for BAT450-F</b>	943 966-001	Set for fastening BAT450-F device to pole, permitted pole diameter 39 mm to 60 mm
	<b>Mast mounting set for OpenBAT-F</b>	942 116-001	Set for fastening OpenBAT-F device to pole, permitted pole diameter 39 mm to 60 mm
	<b>Mounting kit for ships 001</b>	942 007 001	The mounting kit enables you to avoid resonance rise. The kit 001 is snapped onto the DIN rail on the left and/or on the right of the networking device.
	<b>Mounting kit for ships 101</b>	942 007 101	The mounting kit enables you to avoid resonance rise. The kit 101 is snapped onto the DIN rail. The networking device is snapped onto the mounting kit.

## Wireless Accessories

With our product portfolio, we focus on a high industrial suitability. In order to improve our products, in particular with regard to vibration resistance, grounding behavior, impermeability and emission behavior, we have further developed our antenna portfolio. For further information on antennas and wireless accessories please refer to either "Wireless LAN Antenna Guide" or "Wireless WAN Antenna Guide".

### Wireless LAN Antennas

	Product Name	Order Number	Type	Connector	Band / Gain
	<b>BAT-ANT-N-6G-IP65</b>	943 981-022	Omni	N	2.4GHz / 6dBi
	<b>BAT-ANT-N-5A-IP65</b>	943 981-003	Omni	N	5GHz / 5dBi
	<b>BAT-ANT-N-3AGN-IP67 (10pcs)</b>	942 110-001	Omni	N	2.4GHz / 2dBi 5GHz / 2dBi
	<b>BAT-ANT-N-3AGN-F (10pcs)</b>	942 047-001	Omni	N	2.4GHz / 2.5dBi 5GHz / 5dBi
	<b>BAT-ANT-RSMA-2AGN-R (10pcs)</b>	942 046-001	Omni	RP-SMA	2.4GHz / 3dBi 5GHz / 5dBi
	<b>BAT-ANT-N-6ABG-IP65</b>	943 981-004	Hemispherical	N	2.4GHz / 6dBi 5GHz / 8dBi
	<b>BAT-ANT-N-14G-IP23</b>	943 981-005	Directional, vertical	N	2.4GHz / 14dBi
	<b>BAT-ANT-N-18A-V-IP65</b>	943 981-006	Directional, vertical	N	5GHz / 19dBi



## Wireless LAN Antennas



BAT-ANT-N-23A-V-IP65



BAT-ANT-N-MiMo5-9N-IP65

BAT-ANT-N-MiMoDB-5N-IP65

Product Name	Order Number	Type	Connector	Band / Gain
BAT-ANT-N-23A-V-IP65	943 981-007	Directional, vertical	N	5GHz / 23dBi
BAT-ANT-N-23A-VH-IP65	943 981-008	Directional vertical, horizontal	2 x N	5GHz / 23dBi
BAT-ANT-N-MiMo5-18N-IP65	943 981-014	Directional ±45° slant, vertical	3 x N	5GHz / 18dBi
BAT-ANT-N-8G-DS-IP65	943 981-009	Sector, ± 45° slant	2 x N	2.4GHz / 8dBi
BAT-ANT-N-9A-DS-IP65	943 981-010	Sector, ± 45° slant	2 x N	5GHz / 9dBi
BAT-ANT-N-MiMoDB-5N-IP65	943 981-012	Hemispherical	3 x N	2.4GHz / 3.5dBi 5GHz / 5.5dBi
BAT-ANT-N-MiMo5-9N-IP65	943 981-013	Sector ±45° slant, vertical	3 x N	5GHz / 9dBi

## Wireless LAN Accessories



BAT-Pigtail



BAT-CLB-2 N m-f



BAT-ANT-Protectors

Product Name	Order Number	Description
BAT-ANT-Protector m-f	943 903-373	Overvoltage protector
BAT-LAN-Protector IP68	943 903-374	Surge Arrestor LAN/PoE
BAT-Pigtail	943 903-360	Adapter cable (N socket/RPSMA plug)
BAT-CLB-2 N m-f	943 903-514	Antenna cable N-Plug to N-Jack 2 m (6.56 ft)
BAT-CLB-2-N m-m	943 903-513	Antenna cable N-Jack to N-Jack 2 m (6.56 ft)
BAT-CLB-5-N m-f	943 903-516	Antenna cable N-Plug to N-Jack 5 m (16.40 ft)
BAT-CLB-15 N m-f	943 903-515	Antenna cable N-Plug to N-Jack 15 m (49.21 ft)
BAT-LAN-Protector IP68	943 903-374	Overvoltage protector for the PoE/LAN cable
N Terminator 50 Ohm (10pcs)	942 118-001	N connector terminator
SMA Terminator 50 Ohm (10pcs)	942 117-001	SMA connector terminator

## Wireless WAN Antennas

2G/3G/4G (LTE) indoor antenna



Product Name	Order Number	Description
WWAN-A-I-41-S-O	942 042-105	2G/3G/4G (LTE) indoor antenna
WWAN-N-O-N-S	942 042-106	N to SMA adapter
GNSS-A-O-90-S-P	942 042-108	GPS/GNSS indoor antenna

## Miscellaneous Accessories



RJ45 Dust-Cover (50 pcs.)



Dust-Cover set for M12 sockets, metal (25 pcs.)

Product Name	Order Number	Description
RJ45 Dust-Cover (50 pcs.)	943 936-001	50 plastic covers to cover RJ45 ports
SFP Dust-Cover (25 pcs.)	943 942-001	25 plastic covers to cover SFP ports
Dust-Cover set for M12 socket, metal (25 pcs.)	942 057-001	25 metal covers to cover M12 sockets of OCTOPUS switches and BAT Wireless LAN devices
Dust-Cover set for M12 socket, plastic (25 pcs.)	942 057-002	25 plastic covers to cover M12 sockets of OCTOPUS switches and BAT Wireless LAN devices
Dust-Cover for M12 plug (10 pcs.)	942 115-001	10 metal covers to cover M12 plugs of OCTOPUS switches and BAT Wireless LAN devices
Dust-Cover for 7/8" plug (10 pcs.)	942 111-001	10 metal covers to cover 7/8" plugs of BAT Wireless LAN devices
SFP mounting tool	942 079-001	SFP mounting tool for IP67 sockets
ML-MS2x/MM	943 767-001	Labels for MICE switches (MS2x) and MICE media modules (MM)
ML-MS3x	943 768-001	Labels for MICE switches (MS3x)
RSPM-cover	942 131-001	Cover plate to cover empty media slots on RSPE switches
GRS1040, cover plate media module slot	942 198-001	Cover plate to cover empty media slots on Greyhound 1040 switches
GRS1040, cover plate power supply slot	942 198-002	Cover plate to cover empty power supply slots on Greyhound 1040 switches



### Belden Competence Center

As the complexity of communication and connectivity solutions has increased, so have the requirements for design, implementation and maintenance of these solutions. For users, acquiring and verifying the latest expert knowledge plays a decisive role in this. As a reliable partner for end-to-end solutions, Belden offers expert consulting, design, technical support, as well as technology and product training courses, from a single source: Belden Competence Center. In addition, we offer you the right qualification for every area of expertise through the world's first certification program for industrial networks. Up-to-date manufacturer's expertise, an international service network and access to external specialists guarantee you the best possible support for products.

Irrespective of the technology you use, you can rely on our full support – from implementation to optimization of every aspect of daily operations.



#### Always Stay Ahead with Belden

In a highly competitive environment, it is crucial to have reliable partners who add value to your business. When it comes to signal transmissions, Belden is the No. 1 solutions provider. We know your business and want to understand your specific challenges and goals to show how effective signal transmission solutions can push you ahead of the competition. By combining the strengths of our five leading brands, Belden, GarrettCom, Hirschmann, Lumberg Automation and Tofino Security, we are able to offer the integrated solution you need. Today, it may be a single cable, switch or connector, to solve a specific issue; tomorrow, it can be a complex range of integrated applications, systems and solutions. With the rise in smart, connected devices brought on by the Industrial Internet of Things (IIoT), together, we can make sure your infrastructure is ready to handle and make sense of the influx of data. Transform your business now with instant access to information, and make your vision a reality. Visit [info.belden.com/iiot](http://info.belden.com/iiot) to learn more.

#### About Belden

Belden Inc., a global leader in high quality, end-to-end signal transmission solutions, delivers a comprehensive product portfolio designed to meet the mission-critical network infrastructure needs of industrial, enterprise and broadcast markets. With innovative solutions targeted at reliable and secure transmission of rapidly growing amounts of data, audio and video needed for today's applications, Belden is at the center of the global transformation to a connected world. Founded in 1902, the company is headquartered in St. Louis, USA, and has manufacturing capabilities in North and South America, Europe and Asia.

For more information, visit us at [www.belden.com](http://www.belden.com) and follow us on Twitter [@BeldenIND](https://twitter.com/BeldenIND).

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