HIRSCHMANN
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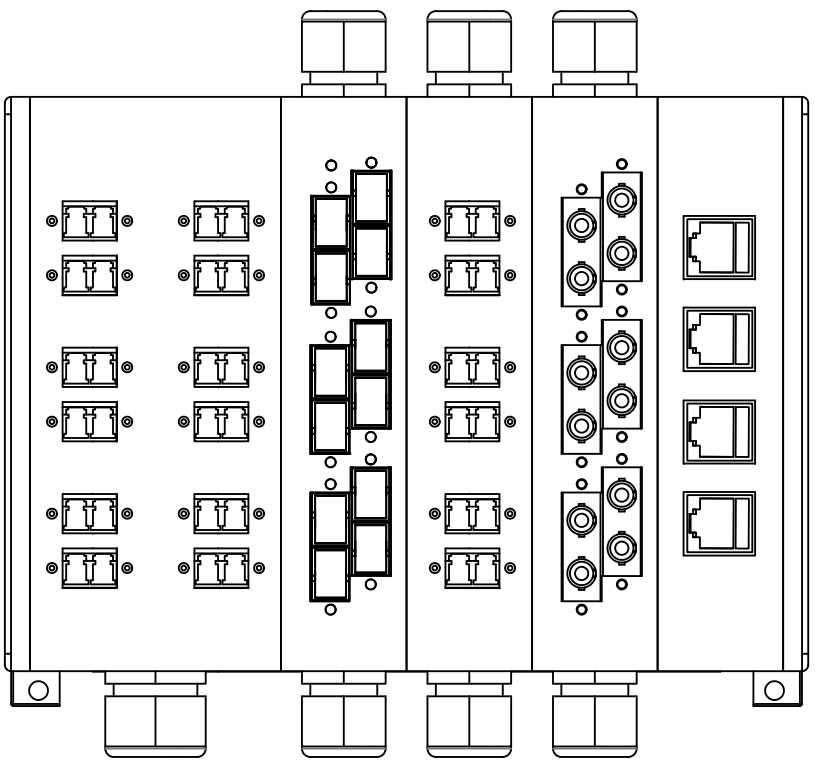
User Manual

Installation
Modular Industrial Patch Panel
MIPP



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Contents

Safety instructions

Certified usage

The device may only be employed for the purposes described in the catalog and technical description, and only in conjunction with external devices and components recommended or approved by the manufacturer.

Environment

- ☐ The device may only be operated at the specified ambient temperatures (temperature of the ambient air at a distance of up to 1.97 in (5 cm) from the device) and at the specified humidity.
- ☐ Install the device in a location where the climatic limit values specified in the technical data are not exceeded.
- ☐ The device may only be used in environments with the pollution degrees not exceeding the values specified in the technical data.

Qualification requirements for personnel

Qualified personnel as understood in this manual and the warning signs, are persons who are familiar with the installation, assembly, startup, and operation of this product and are appropriately qualified for their job. This includes, for example, those persons who have been:

- ▶ Trained or directed in the care and use of appropriate safety equipment in accordance with the current standards of safety engineering
- ▶ Trained or educated in the installation of fiber optics
- ▶ Trained in providing first aid

General safety instructions

- ☐ Never start operation with damaged components.
- ☐ Only use the devices in accordance with this manual. In particular, observe all warnings and safety-related information.
- ☐ Any work that may be required on the electrical installation may only be carried out by personnel trained for this purpose.
- ☐ The proper and safe operation of this device depends on proper handling during transport, proper storage and assembly, and conscientious operation and maintenance procedures.

⚠ WARNING

Laser Light

Light is emitted from the optical connections or from the ends of the optical fibers that are connected to them.

Do not look into the beam or view it directly with optical instruments (e.g. magnifying glass, microscope).

Failure to observe this warning can endanger your sight.

CE marking

The labeled devices comply with the regulations contained in the following European directive(s):

2011/65/EU and 2015/863/EU (RoHS)
Directive of the European Parliament and of the Council on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

Maintenance

When designing this device, Hirschmann largely avoided using high-wear parts. The parts subject to wear and tear are dimensioned to last longer than the lifetime of the product when it is operated normally. Operate this device according to the specifications.

Recycling note

After usage, this device must be disposed of properly as electronic waste, in accordance with the current disposal regulations of your county, state, and country.

About this manual

The “Installation” user manual contains a device description, safety instructions, a description of the display, and the other information that you need to install the device.

Documentation mentioned in the “User Manual Installation” that is not supplied with your device as a printout can be found as PDF files for downloading on the Internet at: https://www.doc.hirschmann.com

Legend

The symbols used in this manual have the following meanings:

▶	Listing
☐	Work step
■	Subheading

1 Description

The Modular Industrial Patch Panel (MIPP) is a device for coupling and managing fiber optics and electrical conductors for data exchange.
It is designed for the special requirements of industrial automation and production and meets relevant industry standards.

The device is suitable for Ethernet component connections according to IEEE 802.3-2000.
The modular concept enables integration of the device according to individual requirements (see table 1).
Both amount and order of the modules and adapters and/or Keystone sockets can be defined and adapted to modified network structures.

The device consists of the following basic components:

- modular housing for 1 to 6 modules
- modules with
  - LC Duplex adapters for optical fiber (F/O) cable connection
  - SC Duplex adapters for optical fiber (F/O) cable connection
  - RJ45 Keystone sockets for Ethernet cable connection
  - ST Duplex adapters for optical fiber (F/O) cable connection
  - E-2000™ Duplex adapters for optical fiber (F/O) cable connection
  - Pre-Terminated MPO Cassette: MPO on trunk side, LC, SC or ST on patch side

Module type	Module design	Max. number of adapter elements	Design of adapter elements	Suitable plugs
LC	Single module	12	LC Duplex adapter	LC plug in accordance with IEC 61754-20
	Double module[a]	24		
SC	Single module	12	SC Duplex adapter	SC plug in accordance with IEC 61754-4, -19
	Double module[a]	24		
ST	Single module	12	ST Duplex adapter	ST plug in accordance with IEC 61754-2
	Double module[a]	24		
E-2000™	Single module	12	E-2000™ Duplex adapter	E-2000™ plugs in accordance with IEC 61754-15
	Double module[a]	24		
Pre-Terminated MPO Cassette	Single module	12	MPO male adapter on trunk side LC, SC or ST adapter on patch side	MPO plug (female) on trunk side LC, SC or ST plug on patch side
CU	Single module	4	RJ45 Keystone socket	RJ45 plug

Table 1: Module variations

a. You have the option to use 1 double module instead of 2 single modules.

Available exclusively in the USA from Belden Wire & Cable:

- Pre-assembled housing variants IPDM1/2/3 (Industrial Patch Panel DIN Rail Modular Design) with 1 to 3 CU modules (empty) for use with RJ45 keystone sockets

Further informationen: See “IPDM1/2/3” on page 22.

Casing, modules and adapters are each fixed with 2 screws. Keystone sockets are installed by means of a snap-in locking device.
The device is designed to be mounted on a DIN rail.

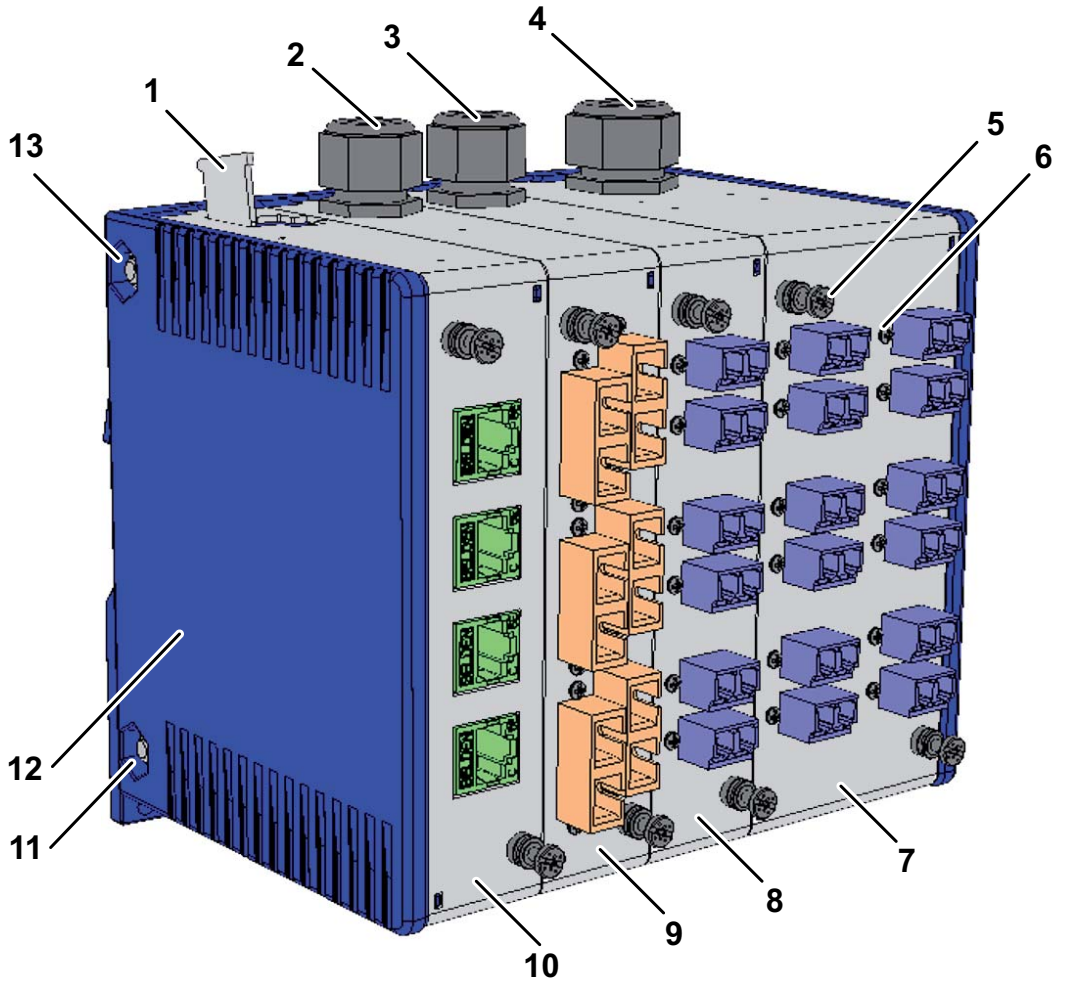

Figure 1: MIPP with 3 single modules and 1 double module
1 – Cable entry with bracket for tie wraps
2 – Cable entry with cable gland M16
3 – Cable entry with cable gland M16
4 – Cable entry with cable gland M20
5 – Screw for fixing the module
6 – Screw for fixing the adapter
7 – LC double module with LC Duplex adapter
8 – LC single module with LC Duplex adapter
9 – SC single module with SC Duplex adapter
10 – CU single module with RJ45 Keystone sockets
11 – Screw for mounting the casing
12 – Casing
13 – Screw for mounting the casing

1.1 Description of the casing

The casing has a modular design and is thus adaptable to the number of modules. There is space for max. 6 single modules.
The following components are available:

- 2 device casing walls, 1 left and 1 right
- Spacer with divider for the separation of 2 single modules
- Spacer without divider for the use of 1 double module
- Slider for mounting the device on a DIN rail.
- 2 coil springs
- 2 device casing bolts M6, inner-hexagonal, with nuts

Note: The length of the device casing bolts to be used is determined by the number and width of all modules used. A total of 6 different lengths are available .

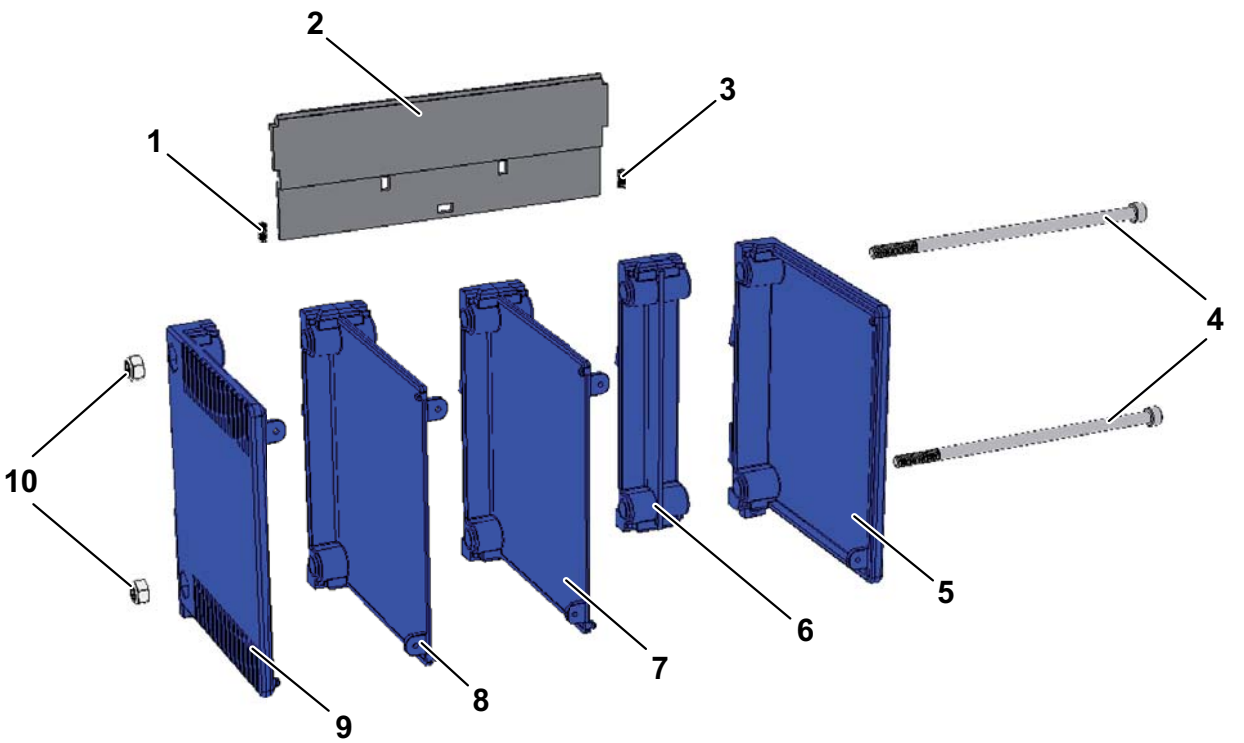

Figure 2: Device casing components
1 – Coil spring
2 – Slider
3 – Coil spring
4 – Device casing bolts
5 – Device casing wall right
6 – Spacer without divider
7 – Spacer with divider
8 – Hole for mounting modules
9 – Device casing wall left
10 – Nuts

1.2 Description of the modules

The modules form the interface between the installation cables and patch cables.
F/O cables are connected via adapters, Ethernet cables via RJ45 Keystone sockets.

The following modules are available:
- LC for connecting LC patch cables
- SC for connecting SC patch cables
- ST for connecting ST patch cables
- E-2000™ for connecting E-2000™ patch cables
- Pre-Terminated MPO Cassette for connecting distributor cables with female MPO and LC, SC or ST patch cables
- CU for connecting Ethernet patch cables

The modules can be:
- combined with each other in any way
- mounted in the casing with the cable entry located on the bottom or top
- equipped with adapters or Keystone sockets according to your order requirements

1.2.1 LC module

The following module designs are available:
- Single module, width 1.18 in (30 mm), with LC Duplex adapters for max. 12 fibers
- Double module, width 2.36 in (60 mm), with LC Duplex adapters for max. 24 fibers

The LC module consists of the following components:
- Fiber bracket
- LC Duplex adapters in mirrored construction
- 2 fixed screws for mounting in the casing
- Brilliance connectors or F/O pigtails with LC plugs (depending on order)
- F/O splice holder
- Strain relief fixture
- Cable gland
  - M16 with single modules
  - M20 with double modules

  Note: The pre-mounted F/O splice holder is suitable for an optical fiber diameter of max. 0.05 in (1.3 mm); an additional F/O splice holder for an optical fiber diameter of 0.09 in to 0.10 in (2.4 mm to 2.6 mm) is included.

Note: The M16 cable gland of the single module is suitable for cables with a diameter of max. 0.39 in (10 mm). The M20 cable gland of the double module is suitable for cables with a diameter of max. 0.51 in (13 mm).

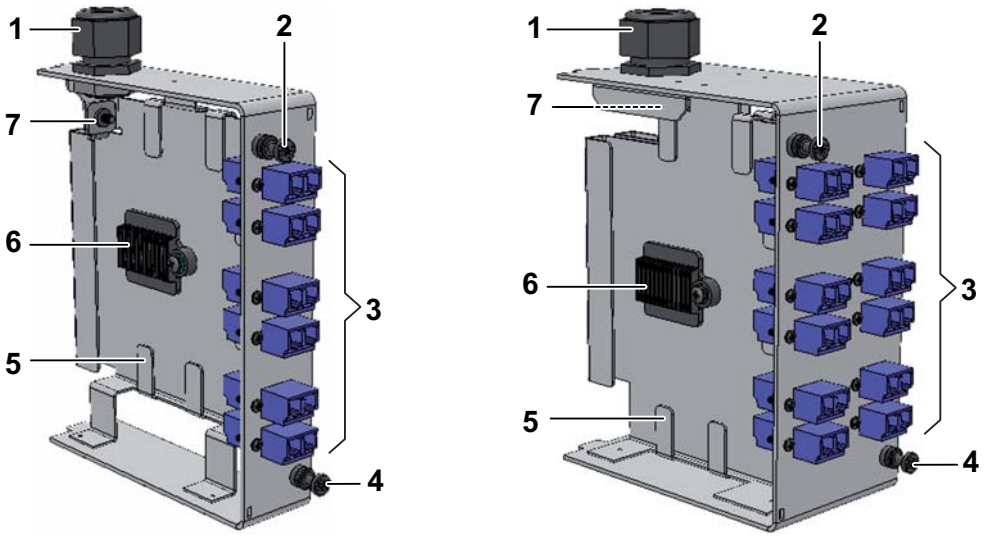

Figure 3: LC single module and LC double module – components
1 – Cable gland
2 – Mounting screw
3 – LC duplex adapters
4 – Mounting screw
5 – Fiber holder
6 – F/O splice holder
7 – Strain relief fixture

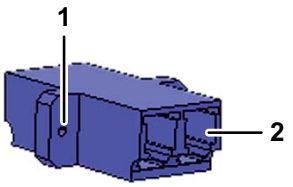

Figure 4: LC Duplex adapter
1 – Hole for mounting
2 – Connector inlet

The following cable types can be used:
- F/O loose tube cable
- Tight buffer cable
- Semi-tight buffer cable

The following plug types can be used:
- LC plug in accordance with IEC 61754-20

1.2.2 SC module

The following module designs are available:

- Single module, width 1.18 in (30 mm), with SC Duplex adapters for max. 12 fibers
- Double module, width 2.36 in (60 mm), with SC Duplex adapters for max. 24 fibers

The SC module consists of the following components:

- Fiber bracket
- SC Duplex adapters in mirrored construction
- 2 fixed screws for mounting in the casing
- Brilliance connectors or F/O pigtails with SC plugs (depending on order)
- F/O splice holder
- Strain relief fixture
- Cable gland
  - M16 with single modules
  - M20 with double modules

Note: The pre-mounted F/O splice holder is suitable for an optical fiber diameter of max. 0.05 in (1.3 mm); an additional F/O splice holder for an optical fiber diameter of 0.09 in to 0.10 in (2.4 mm to 2.6 mm) is included.

Note: The M16 cable gland of the single module is suitable for cables with a diameter of max. 0.39 in (10 mm).
The M20 cable gland of the double module is suitable for cables with a diameter of max. 0.51 in (13 mm).

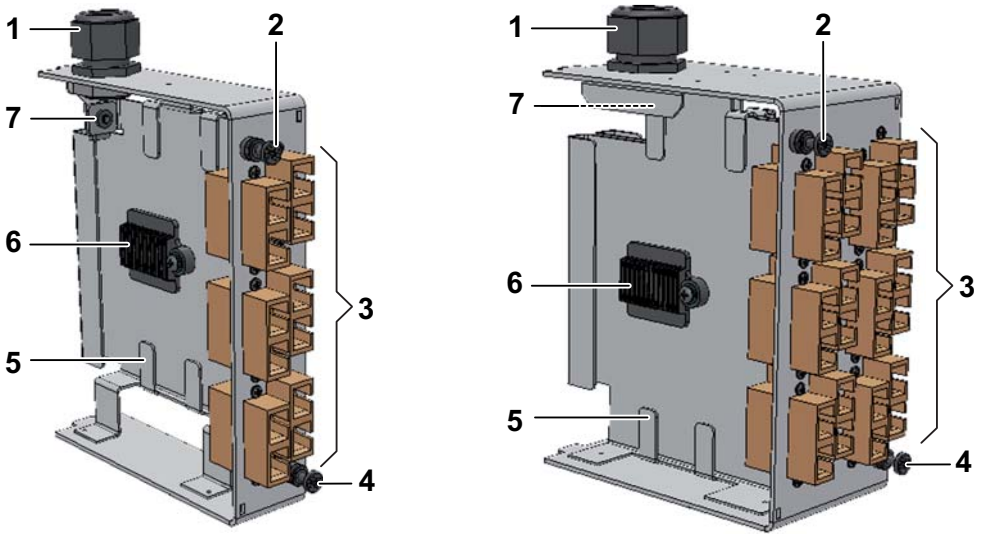

Figure 5: SC single module and SC double module – components
1 – Cable gland
2 – Mounting screw
3 – SC duplex adapters
4 – Mounting screw
5 – Fiber holder
6 – F/O splice holder
7 – Strain relief fixture

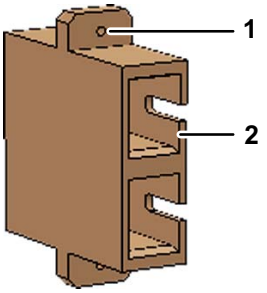

Figure 6: SC Duplex adapter
1 – Hole for mounting
2 – Connector inlet

The following cable types can be used:
- F/O loose tube cable
- Tight buffer cable
- Semi-tight buffer cable

The following plug types can be used:
- SC plug in accordance with IEC 61754-4, -19

1.2.3 ST module

The following module designs are available:
- Single module, width 1.18 in (30 mm), with ST Duplex adapters for max. 12 fibers
- Double module, width 2.36 in (60 mm), with ST Duplex adapters for max. 24 fibers

The ST module consists of the following components:
- Fiber bracket
- ST Duplex adapters in mirrored construction
- 2 fixed screws for mounting in the casing
- Brilliance connectors or F/O pigtails with ST plugs (depending on order)
- F/O splice holder
- Strain relief fixture
- Cable gland
  - M16 with single modules
  - M20 with double modules

  Note: The pre-mounted F/O splice holder is suitable for an optical fiber diameter of max. 0.05 in (1.3 mm); an additional F/O splice holder for an optical fiber diameter of 0.09 in to 0.10 in (2.4 mm to 2.6 mm) is included.

  Note: The M16 cable gland of the single module is suitable for cables with a diameter of max. 0.39 in (10 mm).
  The M20 cable gland of the double module is suitable for cables with a diameter of max. 0.51 in (13 mm).

The following cable types can be used:
- F/O loose tube cable
- Tight buffer cable
- Semi-tight buffer cable

The following plug types can be used:
- ST plug in accordance with IEC 61754-2

1.2.4 E-2000™ module

The following module designs are available:
- Single module, width 1.18 in (30 mm), with E-2000™ Duplex adapters for max. 12 fibers
- Double module, width 2.36 in (60 mm), with E-2000™ Duplex adapters for max. 24 fibers

The E-2000™ module consists of the following components:
- Fiber bracket
- E-2000™ Duplex adapters in mirrored construction

- 2 fixed screws for mounting in the casing
- Brilliance connectors or F/O pigtails with E-2000™ plugs (depending on order)
- F/O splice holder
- Strain relief fixture
- Cable gland
  - M16 with single modules
  - M20 with double modules

Note: The pre-mounted F/O splice holder is suitable for an optical fiber diameter of max. 0.05 in (1.3 mm); an additional F/O splice holder for an optical fiber diameter of 0.09 in to 0.10 in (2.4 mm to 2.6 mm) is included.

Note: The M16 cable gland of the single module is suitable for cables with a diameter of max. 0.39 in (10 mm).
The M20 cable gland of the double module is suitable for cables with a diameter of max. 0.51 in (13 mm).

The following cable types can be used:
- F/O loose tube cable
- Tight buffer cable
- Semi-tight buffer cable

The following plug types can be used:
- E-2000™ plugs in accordance with IEC 61754-15

1.2.5 Pre-Terminated MPO Cassette

The following module designs are available:
- Single module, 1.18 in (30 mm) wide, with LC Duplex adapters for max. 12 fibers on patch side and MPO adapter on trunk side
- Single module, 1.18 in (30 mm) wide, with SC Duplex adapters for max. 12 fibers on patch side and MPO adapter on trunk side
- Single module, 1.18 in (30 mm) wide, with ST Duplex adapters for max. 12 fibers on patch side and MPO adapter on trunk side

The following cable types can be used:
- F/O loose tube cable
- Tight buffer cable
- Semi-tight buffer cable

Depending on module, the following plug types can be used:
- Trunk side: MPO 12 plug (male or female)
- Patch side: LC plug in accordance with IEC 61754-20
- Patch side: SC plug in accordance with IEC 61754-4, -19
- Patch side: ST plug in accordance with IEC 61754-2

1.2.6 CU module

The CU module consists of the following components:

- RJ45 Keystone sockets
- 2 fixed screws for mounting in the casing
- Cable entry
- Ground screw
- Bracket for tie wraps

The following module designs are available:

- Single module, width of 1.18 in (30 mm), with RJ45 Keystone sockets for max. 4 Ethernet lines

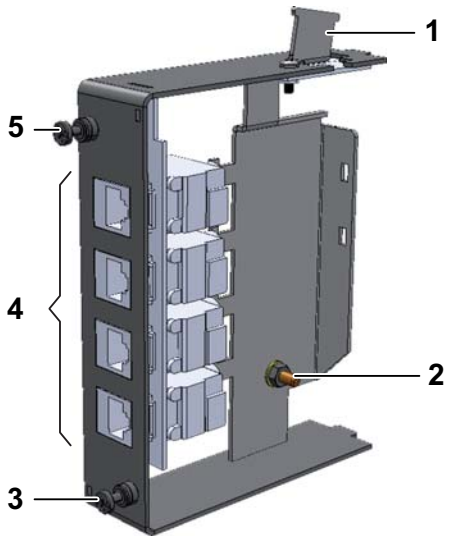

Figure 7: CU single module – components
1 – Cable entry with bracket for tie wraps
2 – Ground screw
3 – Mounting screw
4 – RJ45 Keystone sockets
5 – Mounting screw

The following socket types can be used:

- RJ45 Keystone socket
- Industrial REVConnect RJ45 Keystone socket/coupler

RJ45 Keystone socket

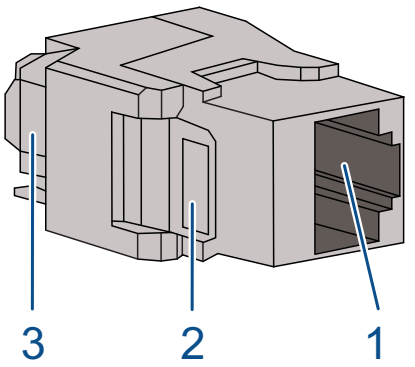

Figure 8: RJ45 Keystone socket
1 – Patch cable inlet
2 – Latch
3 – Installation cable inlet

The following cable types can be used:
- Cat 5E (shielded and unshielded)
- Cat 6 (shielded and unshielded)
- Cat 6A (shielded and unshielded)
- Cat 7 (shielded)

The following plug types can be used:
- RJ45 plug

Industrial REVConnect RJ45 Keystone socket/coupler

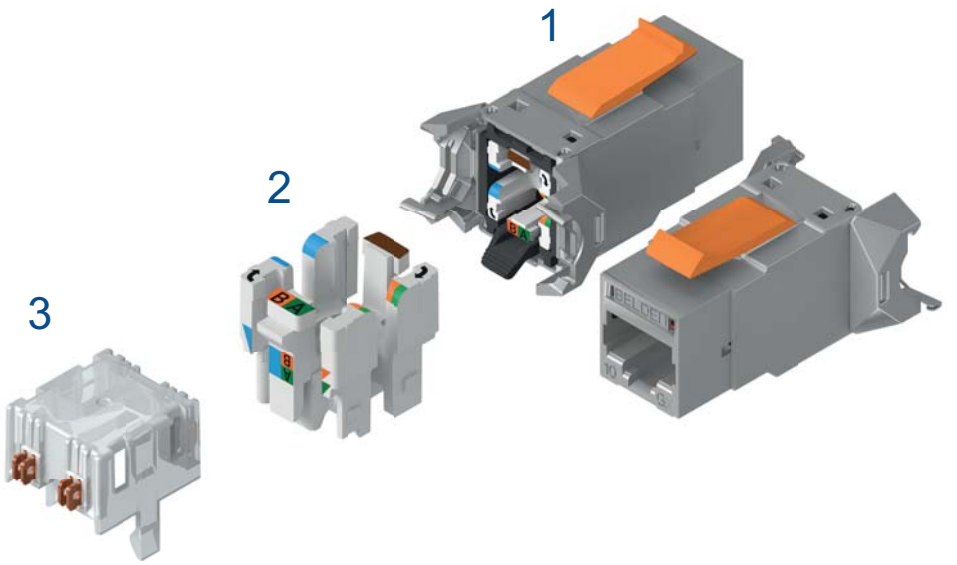

Figure 9: 1 – Industrial REVConnect RJ45 Keystone socket (coupler also available)
2 – Cable manager
3 – Termination cap

The following cable types can be used:

- Cat 5E (shielded and unshielded)
- Cat 6 (shielded and unshielded)
- Cat 6A (shielded and unshielded)

The following plug types can be used:

- RJ45 plug

1.3 IPDM1/2/3

Note: Available exclusively in the USA from Belden Wire & Cable.

The **I**ndustrial **P**atch Panel **D**IN Rail **M**odular Design (IPDM) consists of a robust aluminum housing with 1, 2 or 3 single CU (copper) modules (empty) and is compatible with shielded or unshielded RJ45 keystone sockets or couplers with or without Industrial REVConnect.

The CU (copper) module (empty) consists of the following components:

- RJ45 Keystone sockets
- 2 fixed screws for mounting in the casing
- Cable entry
- Ground screw
- Bracket for tie wraps

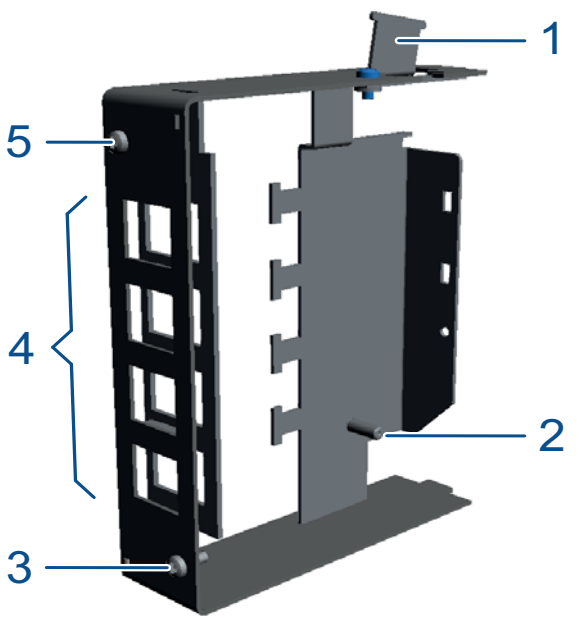

Figure 10: CU module (empty) – components

1 – Cable entry with bracket for tie wraps
2 – Ground screw
3 – Mounting screw
4 – RJ45 Keystone sockets
5 – Mounting screw

1.3.1 Device variants

Device version	Modules	Max. number of adapter elements	Suitable cable types	Suitable plugs
IPDM1	1 CU module (empty)	4	shielded and unshielded Cat 5E, Cat 6, Cat 6A	RJ45 plug
IPDM2	2 CU modules (empty)	8	shielded and unshielded Cat 5E, Cat 6, Cat 6A	RJ45 plug
IPDM3	3 CU modules (empty)	12	shielded and unshielded Cat 5E, Cat 6, Cat 6A	RJ45 plug

Table 2: Device variants IPDM

1.3.2 Technical data

Dimensions W × D × H	IPDM1	1.65 in × 4,56 × 5.43 in (42 mm × 116 mm × 138 mm)
	IPDM2	2.83 in × 4.56 in × 5.43 in (72 mm × 116 mm × 138 mm)
	IPDM3	4.01 in × 4.56 in × 5.43 in (102 mm × 116 mm × 138 mm)
Weight	IPDM1	22.22 oz (630 g)
	IPDM2	34.56 oz (980 g)
	IPDM3	46.91 oz (1330 g)
Climatic conditions during operation	IPDM1/2/3	Ambient air temperature[a] -40 °F ... +158 °F (-40 °C ... +70 °C)
Protection classes	IPDM1/2/3	IP20

a. Temperature of the ambient air at a distance of 2 in (5 cm) from the device

2 Installation

The device has been developed for practical application in a harsh industrial environment.
The following sequence has proven itself in practice during installation:

- Unpacking the package and checking the content
- Installing the modules
  - Removing the modules from the casing
  - Install the installation cable on the modules
  - Mount modules in the casing
- Mount device on the DIN rail
- Connecting patch cables

2.1 Checking the package contents

☐ Check whether the package includes all items named in the section “Scope of delivery” on page 30.
☐ Check the individual parts for transport damage.

2.2 Installing modules

You will receive the device with modules pre-installed according to your order.
You require the following tools (not included in the delivery):

- Cross-tip screwdriver
- Strip tool
- Splicer (with F/O cables)

Note: Observe the minimum bend radius provided by the cable manufacturer.

2.2.1 Removing the module from the casing

Perform the following work steps:

☐ Loosen the 2 fixed screws on the front of the module and pull the module forward out of the casing.

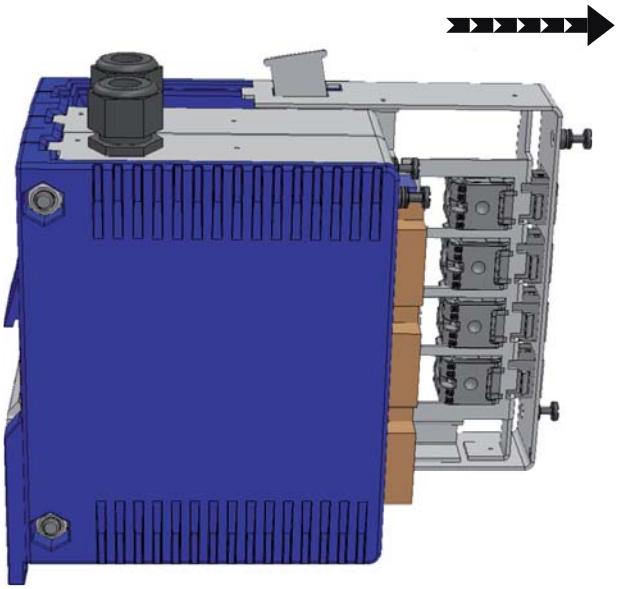

Figure 11: Removing the module

2.2.2 Installation of installation cables on LC, SC, ST and E-2000TM modules

Perform the following work steps

☐ Loosen the cable gland.
☐ Run the installation cable trough the cable gland and into the module.
☐ Remove the jacket from the installation cable on a sufficient length for splicing.
☐ When using a double module: Install 12 fibers on both sides.
☐ Tighten the cable gland.
☐ Fix the strain relief fixture.

Note: Follow the safety instructions of the splicer manufacturer.

Note: When performing fusion splicing, we recommend to use heat shrink protectors with a length of 0.98 in to 1.38 in (25 mm to 35 mm) and a diameter of 0.05 in or 0.10 in (1.3 mm or 2.5 mm) after shrinkage.

Note: When performing mechanical splicing, we recommend to use crimp splice protectors with a length of 0.98 in to 1.38 in (25 mm to 35 mm) and a diameter of 0.05 in or 0.10 in (1.3 mm or 2.5 mm) after shrinkage.

☐ **A)** Splice the pigtails to the fibers of the installation cable and fix the splice location in place in the splice holder.

Or:
B) Connect the fibers with Brilliance connectors.

Note: When using heat shrink protectors or crimp splice protectors with a diameter of 0.05 in (1.3 mm), the pre-mounted splice holder can be used. When using heat shrink protectors or crimp splice protectors with a diameter of 0.05 in (2.5 mm), replace the pre-mounted splice holder with the included splice holder with a diameter of 0.10 in (2.5 mm).

☐ Place the fiber supply in the fiber bracket.

Note: The module has space for a fiber supply of max. 49 ft (15 m).

☐ Insert the plugs or Brilliance connectors into the adapters until they lock in place.

2.2.3 Installation of installation cables on CU modules

Perform the following work steps:

☐ Install the installation cables in the RJ45 keystone sockets (refer to the Keystone socket manufacturer product documentation).

☐ Insert the Keystone sockets into the cutouts in the module until they lock in place. Note the following order:
- Cable 3
- Cable 4
- Cable 1
- Cable 2

(see figure 12)

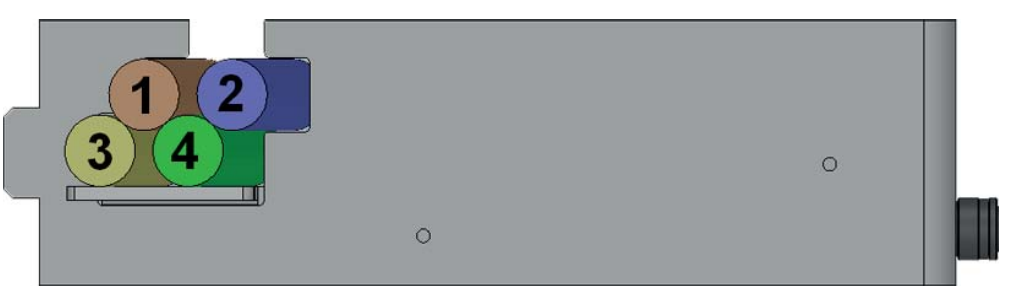

Figure 12: Cable arrangement – Top view

☐ Fix the installation cables to the metal bracket with the included Velcro strip.
☐ Fix the ground cable (not included in the delivery) with one end to the ground connection of the module and with the other end to the ground bar of the installation system.

2.2.4 Installing the module in the casing

Perform the following work steps:

☐ Install the modules in the casing.
☐ Tighten the 2 fixed screws on the front of the module.

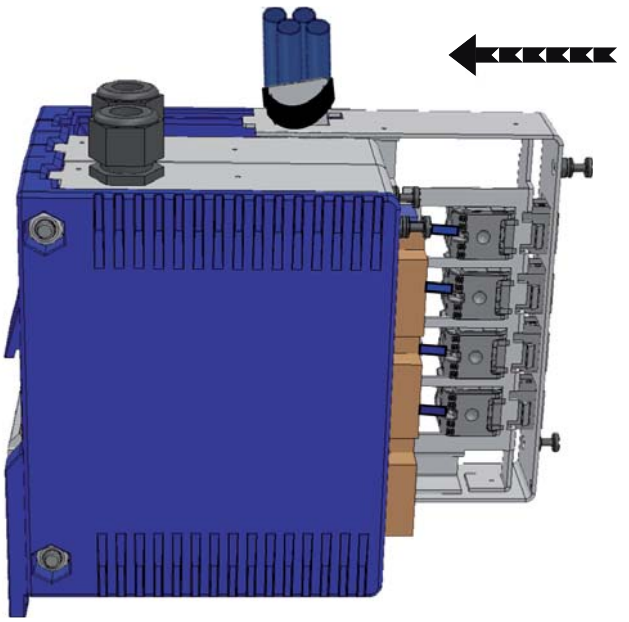

Figure 13: Installing the module

2.3 Installing the device and grounding

2.3.1 Mounting on the DIN rail

You have the option to attach the device to a 35 mm DIN rail according to DIN EN 60715.
No tools are necessary.

Perform the following work steps:

☐ Insert the slider into the rail and press the device down against the rail until it locks into place (see figure 14).

☐ Fix the ground cable (not included in the delivery) with one end to the ground connection of the module and with the other end to the ground bar of the installation system.

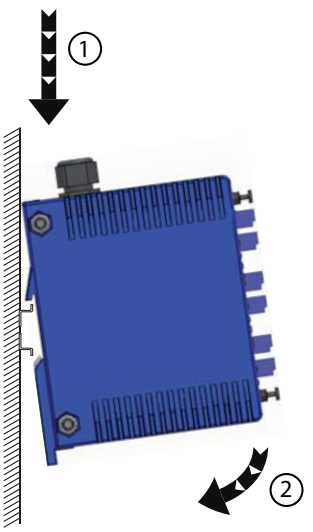

Figure 14: Mounting the device on the DIN rail

3 Technical data

General technical data

Dimensions W × D × H	Single module, front side	1.18 in × 5.24 in × 5.75 in (30 mm × 133 mm × 146 mm)
	Single module, rear side	1.18 in × 5.24 in × 6.58 in (30 mm × 133 mm × 167 mm)
	Double module, front side	2.36 in × 5.24 in × 5.75 in (60 mm × 133 mm × 146 mm)
	Double module, rear side	2.36 in × 5.24 in × 6.58 in (60 mm × 133 mm × 167 mm)
	Device casing wall	0.24 in × 5.24 in × 6.58 in (6 mm × 133 mm × 167 mm)
	Spacer with divider	1.18 in × 5.24 in × 6.58 in (30 mm × 133 mm × 167 mm)
	Spacer without divider	1.18 in × 5.24 in × 6.58 in (30 mm × 133 mm × 167 mm)
Weight	LC/SC/ST/E-2000™ Single module	8.29 oz (235 g) (10.58 oz (300 g) with metal adapters)
	CU single module	18.17 oz (515 g) (22.58 oz (640 g) with shielding)
	Double module	15.87 oz (450 g) (19.05 oz (540 g) with metal adapters)
	Pre-Terminated MPO Cassette	9.17 oz (260 g)
	Device casing wall	6.00 oz (170 g)
	Spacer with divider	4.94 oz (140 g)
	Spacer without divider	2.51 oz (71 g)
Climatic conditions during operation	LC/SC/ST/CU/E-2000™ module, Pre-Terminated MPO Cassette	Ambient air temperature[a] -4 °F ... +158 °F (-20 °C ... +70 °C)
Protection classes	LC/SC/ST/E-2000™ module/ Pre-Terminated MPO Cassette	IP40
	CU module	IP20

a. Temperature of the ambient air at a distance of 2 in (5 cm) from the device

Adapters and Keystone jacks

Adapter	Suitable cables	Suitable connectors
LC Duplex adapter	Cable types: - F/O loose tube cable - Tight buffer cable - Semi-tight buffer cable	LC connector in accordance with IEC 61754-20
SC Duplex adapter	Cable types: - F/O loose tube cable - Tight buffer cable - Semi-tight buffer cable	SC connector in accordance with IEC 61754-4, -19
ST Duplex adapter	Cable types: - F/O loose tube cable - Tight buffer cable - Semi-tight buffer cable	SC connector in accordance with IEC 61754-2

Adapter	Suitable cables	Suitable connectors
E-2000™ Duplex adapter	Cable types: - F/O loose tube cable - Tight buffer cable - Semi-tight buffer cable	E-2000™ connector in accordance with IEC 61754-15
MPO 12 (male), polarity Type A adapter	Cable types: - F/O loose tube cable - Tight buffer cable - Semi-tight buffer cable	MPO 12 connector (female)
RJ45 Keystone socket	Cable types: - Cat 5E (shielded and unshielded) - Cat 6 (shielded and unshielded) - Cat 6A (shielded and unshielded) - Cat 7 (shielded)	RJ45 connector

4 Scope of delivery

Device	Scope of delivery
Modular Industrial Patch Panel (MIPP)	Device with modules according to order Installation user manual Return note

5 Underlying technical standards

Designation	
IEC 61754-2, -4, -15, -19, -20	Optical connectors
IEC 60825-1	Laser product safety
IEEE 802.3-2009	Information technology
UL 1863	Communication Circuit Accessories

Table 3: List of based specifications and standards. Certified devices are marked with a certification identifier.

The device has an approval based on a specific standard exclusively if the approval indicator appears on the device casing.
If your device has a shipping approval according to Germanischer Lloyd, you find the approval mark printed on the device label. You will find out whether your device has other shipping approvals on the Hirschmann website under www.hirschmann.com in the product information.

A Further support

Technical questions

For technical questions, please contact any Hirschmann dealer in your area or Hirschmann directly.

You find the addresses of our partners on the Internet at http://www.hirschmann.com.

A list of local telephone numbers and email addresses for technical support directly from Hirschmann is available at https://hirschmann-support.belden.com.

This site also includes a free of charge knowledge base and a software download section.

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