



Modular Industrial Patch Panel - MIPP

Combines both copper and fiber cable termination in one future-proof solution

The MIPP is designed for harsh environments, where its robust construction and high port density with multiple connector types make it ideal for installation in industrial networks.



Maximum system flexibility & versatility by combining copper and fiber management in one patch panel.



Highest level of reliability due to its solid metal construction, designed for use in indoors industrial environments without a cabinet.



Quick and easy installation of structured cabling to reduce installation costs (CapEx) and maintenance costs (OpEx).

Key Features

- High port density: up to 72 fibers and 24 copper cables
- LC, SC, ST and E-2000 fiber duplex adapters
- Support singlemode and multimode fibers
- Double fiber module accommodates hybrid fiber cables
- RJ45 copper keystone jacks (shielded and unshielded, CAT5E, CAT6, CAT6A)
- RJ45 copper coupler (shielded and unshielded, CAT6A)
- RJ45 copper Industrial REVConnect jacks (shielded and unshielded, CAT6A)
- RJ45 copper Industrial REVConnect couplers (unshielded, CAT6A)
- Module can be removed from housing for easy cable installation
- 100% factory tested pre-terminated MPO cassette for fast, reliable fiber installation
- Wide temperature range from -20 °C to +70 °C
- UL approval (UL 1863)



Due to their compact dimensions, up to 6 modules can be combined in any permutation – and when required, each module can be easily removed or replaced.

**Be certain.
Belden.**



MIPP Mix



Pre-Terminated MPO Cassette

MIPP: A Versatile, Modular Patch Panel for Industrial Applications

The MIPP provides the ideal connection between Belden cables and Hirschmann switches. Its industrial modular design is suitable for industrial applications where active devices or end devices must be connected to infrastructure cabling.

It can easily be mounted on a DIN Rail, or attached at the sides of the cabinets by simply using a wall mount plate.

The MIPP Pre-Terminated MPO Cassette is 100% tested during manufacture. No need to splice, cleave or polish when installing on the plant floor.

The MIPP is available as both single and double modules:

- Single Fiber Modules (up to 12 fiber connections)
 - 6 x SC duplex adapters
 - 6 x LC duplex adapters
 - 6 x ST duplex adapters
 - 6 x E-2000 duplex adapters
- Single Copper Modules
 - 2 or 4 x RJ45 keystone shielded
 - 2 or 4 x RJ45 keystone unshielded
 - 2 or 4 x RJ45 coupler shielded
 - 2 or 4 x RJ45 coupler unshielded
 - 2 or 4 x RJ45 Industrial REVConnect jack shielded
 - 2 or 4 x RJ45 Industrial REVConnect jack unshielded
 - 2 or 4 x RJ45 Industrial REVConnect coupler unshielded
- Double Fiber Modules (up to 24 fiber connections)
 - 12 x SC duplex adapters
 - 12 x LC duplex adapters
 - 12 x ST duplex adapters
 - 12 x E-2000 duplex adapters









Applications and Markets







The MIPP is ideal for use in a wide range of industrial applications requiring maximum system reliability and flexibility. The industrial design makes it highly suited for use in Machine Building, Transportation, Alternative Power Generation, Oil & Gas, and Power Transmission & Distribution markets, as well as more general use in enterprise, buildings and other applications.

Technical Information

Housing Type and Description						
Description	Modular Industrial Patch Panel, DIN Rail					
Number of Single Modules	1	2	3	4	5	6
Mechanical Construction						
Material Housing	Aluminium					
Dimensions (W x H x D)	42 x 138 x 122 mm	72 x 138 x 122 mm	102 x 138 x 122 mm	132 x 138 x 122 mm	162 x 138 x 122 mm	192 x 138 x 122 mm
Dimensions with Adapters and Gland, max. (H x D)	165 x 133 mm	165 x 133 mm	165 x 133 mm	165 x 133 mm	165 x 133 mm	165 x 133 mm
Mounting	DIN Rail					
Appr. Weight Housing	360 g	530 g	697 g	865 g	1034 g	1200 g
Dimension Wallmount Plate (W x H)	38 x 157 mm	68 x 157 mm	98 x 157 mm	128 x 157 mm	158 x 157 mm	188 x 157 mm
Appr. Weight Wallmount Plate	67 g	119 g	172 g	223 g	277 g	329 g

Technical Information

Module Type and Description						
	MIPP Fiber Splice Box				MIPP Copper Patch Panel	
Type	Single Module	Single Module	Single Module	Single Module	Single Module	Single Module
Description	6 x SC Duplex	6 x LC Duplex	6 x ST Duplex	6 x E-2000 Duplex	4 x RJ45 Keystone Jack, Unshielded	4 x RJ45 Coupler, Unshielded
						
Mechanical Construction						
Material	Steel					
Adapter/Keystone Types	<ul style="list-style-type: none"> Blue SC adapter OS2 UPC zirconia ceramic Beige SC adapter OM1/OM2 PC phosphor bronze Aqua SC adapter OM3/OM4 PC zirconia ceramic 	<ul style="list-style-type: none"> Blue LC adapter OS2 UPC zirconia ceramic Beige LC adapter OM1/OM2 PC phosphor bronze Aqua LC adapter OM3/OM4 PC zirconia ceramic 	<ul style="list-style-type: none"> Blue ST adapter OS2 UPC zirconia ceramic Beige ST adapter OM1/OM2 PC phosphor bronze Aqua ST adapter OM3/OM4 PC zirconia ceramic 	<ul style="list-style-type: none"> Blue E-2000 adapter OS2 UPC zirconia ceramic Beige E-2000 adapter OM1/OM2 PC zirconia ceramic Aqua E-2000 adapter OM3/OM4 PC zirconia ceramic 	<ul style="list-style-type: none"> CAT5E Modular Jack, Keyconnect, black CAT6+ Modular Jack, Keyconnect, black CAT6A/10GX Modular Jack, Keyconnect, black CAT6A/10GX Industrial REVConnect Jack, black 	<ul style="list-style-type: none"> CAT6A/10GX Modular Jack, Keyconnect Couple, black CAT6A/10GX Industrial REVConnect Coupler, black
Appr. Weight Module	218 g	218 g	218 g	218 g	516 g	516 g
Protection Class	IP40	IP40	IP40	IP40	IP20	IP20
Cable Entry	3 x M16 Glands	3 x M16 Glands	3 x M16 Glands	3 x M16 Glands	<ul style="list-style-type: none"> 1 cable entry point with tie wrap fixing latch 	<ul style="list-style-type: none"> 1 cable entry point with tie wrap fixing latch
Maximum Diameter Cable	10 mm	10 mm	10 mm	10 mm	8.6 mm	8.6 mm
Cable Types	Fiber cables up to 12 fibers: loose tube, mini-breakout, breakout cables				CAT5E unshielded, CAT6 unshielded, CAT6A unshielded	

Module Type and Description						
Type	Double Modules	Double Modules	Double Modules	Double Modules	Single Module	Single Module
Description	12 x SC Duplex	12 x LC Duplex	12 x ST Duplex	12 x E-2000 Duplex	4 x RJ45 Keystone Jack, Shielded	4 x RJ45 Coupler, Shielded
						
Mechanical Construction						
Material	Steel					
Adapter/Keystone Types	<ul style="list-style-type: none"> Blue SC adapter OS2 UPC zirconia ceramic Beige SC adapter OM1/OM2 PC phosphor bronze Aqua SC adapter OM3/OM4 PC zirconia ceramic 	<ul style="list-style-type: none"> Blue LC adapter OS2 UPC zirconia ceramic Beige LC adapter OM1/OM2 PC phosphor bronze Aqua LC adapter OM3/OM4 PC zirconia ceramic 	<ul style="list-style-type: none"> Blue ST adapter OS2 UPC zirconia ceramic Beige ST adapter OM1/OM2 PC phosphor bronze Aqua ST adapter OM3/OM4 PC zirconia ceramic 	<ul style="list-style-type: none"> Blue E-2000 adapter OS2 UPC zirconia ceramic Beige E-2000 adapter OM1/OM2 PC phosphor bronze Aqua E-2000 adapter OM3/OM4 PC zirconia ceramic 	<ul style="list-style-type: none"> CAT5E Shielded Modular Jack, Keyconnect, metal body CAT6+ Shielded Modular Jack, Keyconnect, metal body CAT6A/10GX Shielded Modular Jack, Keyconnect, metal body CAT6A/10GX Shielded Industrial REVConnect Jack, metal body 	<ul style="list-style-type: none"> CAT6A/10GX Shielded Modular Jack, Keyconnect Coupler, metal body
Appr. Weight Module	450 g	450 g	450 g	450 g	636 g	636 g
Protection Class	IP40	IP40	IP40	IP40	IP20	IP20
Cable Entry	1 x M20 Gland 2 x M16 Glands	1 x M20 Gland 2 x M16 Glands	1 x M20 Gland 2 x M16 Glands	1 x M20 Gland 2 x M16 Glands	<ul style="list-style-type: none"> 1 cable entry point with tie wrap fixing latch 	<ul style="list-style-type: none"> 1 cable entry point with tie wrap fixing latch
Maximum Diameter Cable	13 mm for G20 10 mm for G16	13 mm for G20 10 mm for G16	13 mm for G20 10 mm for G16	13 mm for G20 10 mm for G16	8.6 mm	8.6 mm
Cable Types	Fiber cables up to 24 fibers: loose tube, mini-breakout Hybrid fiber cable: 6 x SM + 6 x OM1, 6 x SM + 6 x OM2, 6 x SM + 6 x OM3, 6 x SM + 6 x OM4				CAT5E shielded, CAT6 shielded, CAT6A shielded, CAT7 shielded	

Accessories						
Pigtails (1 pack of 12 pigtails, 900 micron, 0.6 m in 12 different colours)	<ul style="list-style-type: none"> SC/UPC SM 9/125, OS2 SC/PC MM 62.5/125, OM1 SC/PC MM 50/125, OM2 SC/PC MM 50/125, OM3 SC/PC MM 50/125, OM4 	<ul style="list-style-type: none"> LC/UPC SM 9/125, OS2 LC/PC MM 62.5/125, OM1 LC/PC MM 50/125, OM2 LC/PC MM 50/125, OM3 LC/PC MM 50/125, OM4 	<ul style="list-style-type: none"> ST/UPC SM 9/125, OS2 ST/PC MM 62.5/125, OM1 ST/PC MM 50/125, OM2 ST/PC MM 50/125, OM3 ST/PC MM 50/125, OM4 	<ul style="list-style-type: none"> E-2000/UPC SM 9/125, OS2 E-2000/PC MM 62.5/125, OM1 E-2000/PC MM 50/125, OM2 E-2000/PC MM 50/125, OM3 E-2000/PC MM 50/125, OM4 	<ul style="list-style-type: none"> Universal cable crimping tool Core pack 10 pcs Core Pack 20 pcs Core Pack 50 pcs <p>For MIPP housings equipped with Industrial RevConnect jacks or couplers</p>	<ul style="list-style-type: none"> Universal cable crimping tool Core pack 10 pcs Core Pack 20 pcs Core Pack 50 pcs <p>For MIPP housings equipped with Industrial RevConnect jacks or couplers</p>
Brilliance Field Installable Connector (900 micron)	12 brilliance connectors SC: <ul style="list-style-type: none"> SM 9/125, OS2, blue MM 62.5/125, OM1, beige MM 50/125, OM2, black MM 50/125, OM3/OM4, aqua 	12 brilliance connectors LC: <ul style="list-style-type: none"> SM 9/125, OS2, blue MM 62.5/125, OM1, beige MM 50/125, OM2, black MM 50/125, OM3/OM4, aqua 	24 brilliance connectors ST: <ul style="list-style-type: none"> SM 9/125, OS2, blue MM 62.5/125, OM1, beige MM 50/125, OM2, black MM 50/125, OM3/OM4, aqua 			



MIPP Configurator

Please Choose your Configuration Code in the Designated Boxes

				Housing			Module 1			Module 2				Module 3							
M	I	P	P	/	L	D	/	2	S	3	P	/	c	u	e	4	/	1	N	N	N

Housing

- X = No housing
- A = 1 x single module
- B = 2 x single module
- C = 3 x single module
- D = 4 x single module
- E = 5 x single module
- F = 6 x single module
- G = 1 x double module fiber
- H = 2 x double module fiber
- I = 3 x double module fiber
- J = 1 x single + 1 x double fiber
- K = 1 x single + 2 x double fiber
- L = 2 x single + 1 x double fiber
- M = 2 x single + 2 x double fiber
- N = 3 x single + 1 x double fiber
- O = 4 x single + 1 x double fiber

Note: A double module requires two places

Mounting

- D = Standard DIN Rail
- W = Wall mount plate included
- X = No housing

Fiber Splice Box Module

- 1 = Single module for 12 fibers
- 2 = Double module for 24 fibers

Adapter

- B = ST – ST metal duplex adapters
- T = ST – ST duplex adapters
- M = SC – SC metal duplex adapters
- S = SC – SC duplex adapters
- L = LC – LC duplex adapters
- E = E-2000 – E-2000 adapters

Application

- 1 = MM/OM1
- 2 = MM/OM2
- 3 = MM/OM3
- 4 = MM/OM4
- 5 = 6 x SM/OS2 / 6 x OM1
- 6 = 6 x SM/OS2 / 6 x OM2
- 7 = 6 x SM/OS2 / 6 x OM3
- 8 = 6 x SM/OS2 / 6 x OM4
- 9 = SM/OS2 UPC
- A = SM/OS2 APC

Note: 5-8 for double module only

Accessories

- P = Pigtailed
- B = Brilliance field installable connectors
- N = No accessories

Example Module 2

c	u	e	4
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Copper Patch Panel Module

c = Single copper module

Keystones / Couplers

- c = Unshielded couplers
- d = Shielded couplers
- u = Unshielded keystones
- s = Shielded keystones
- r = Unshielded Industrial REVConnect couplers
- j = Unshielded Industrial REVConnect jacks
- v = Shielded Industrial REVConnect jacks

Category

- d = CAT5E
- e = CAT6
- a = CAT6A

Number of Connections

- 2 = 2 keystones / couplers
- 4 = 4 keystones / couplers

Example Module 3

1	N	N	N
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Blind Module

- 1 = Single blind module
- 2 = Double blind module

Accessories for MIPP with Industrial REVConnect

Tool	942-290-001	Universal Cable Crimping Tool
Cores:	942-290-002	Core pack 10 pcs.
• Cable Manager	942-290-003	Core Pack 20 pcs.
• Termination Cap	942-290-004	Core Pack 50 pcs.

For additional Fiber Splice Box and Copper Patch Panel accessories, please contact customer service.

MIPP Pre-Terminated MPO Cassette Configurator

				Housing		Cassette 1		Cassette 2				Cassette 3				Cassette 4				Cassette 5				Cassette 6																						
M	I	P	P	/	A	D	/	P	4	M	A	/	X	X	X	X	/	X	X	X	X	/	X	X	X	X	/	X	X	X	X	/	X	X	X	X	/	X	X	X	X	/	X	X	X	X

Housing

- X = No housing
- A = 1 x single module
- B = 2 x single module
- C = 3 x single module
- D = 4 x single module
- E = 5 x single module
- F = 6 x single module

Mounting

- D = Standard DIN Rail
- W = Wall mount plate included
- X = No housing

For additional housings and cassette combinations, please contact customer service.

Fiber MPO Cassette

P = Pre-Terminated MPO Cassette

Fiber Type (Applications)

- 4 = LC duplex MM/OM4
- 9 = LC duplex SM/OS2 UPC

Connector (Trunk Side)

M = 1-port MPO-12 (m)

Polarity

A = Type A

Example Part Numbers

Configuration	Description in DIN Rail Design
MIPP/AD/P9MA	MIPP with Pre-Terminated MPO Cassette with 6 LC OS2/UPC duplex adapters (blue) to 1 MPO-12 (male), Polarity Type-A
MIPP/AD/P4MA	MIPP with Pre-Terminated MPO Cassette with 6 LC OM4 duplex adapters (aqua) to 1 MPO-12 (male), Polarity Type-A

Can be inserted in any slot of a MIPP housing

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