

# MIPP

## Technical Datasheet Modular Industrial Patch Panel

### Application

MIPP™ is an industrial termination and patching panel enabling cables to be terminated and linked to active equipment such as switches. Its robust design protects connections in nearly any industrial application. MIPP™ comes as either a Fiber Splice Box, Copper Patch Panel, or a combination, allowing flexible network design for network engineers and flexible patching for system installers.

### Features

- Robust design of lightweight, high strength aluminium housing
- Allows termination and patching of:
  - up to 72 optical fibers
  - up to 24 copper cables
- DIN rail (TS35 in EN 60715) or wall mount plate as option
- Temperature range from -20°C to +70°C
- Predicted lifetime > 30 years
- UL 1863 certified

### Fiber Connections

Optical duplex adapters in plastic: LC, SC, ST and E-2000™  
Optical duplex adapters in metal: SC, ST

### Copper Connections

RJ45 Keystones: Cat 5<sub>E</sub>, Cat 6 and Cat 6<sub>A</sub> (shielded and unshielded)  
RJ45 Couplers: Cat 6<sub>A</sub> (shielded and unshielded)



### Construction

The aluminium housing design can hold up to 6 single modules, 3 double modules or a combination (maximum width 182mm). Single modules are 30mm wide and double modules are 60mm wide. See below for the dimensions of a three single module MIPP (SC adapters, LC adapters and RJ45 keystones). Both module and housing are powder coated.

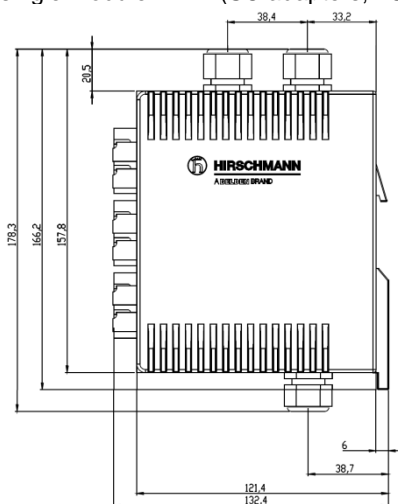


Figure 1 - MIPP left side with dimensions

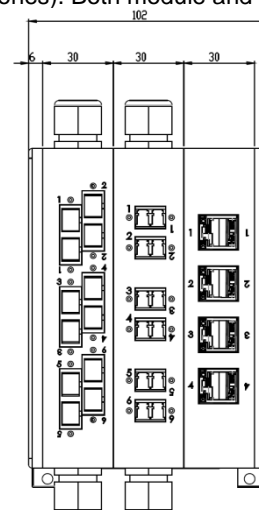


Figure 2 - MIPP Front side with dimensions

## Construction, Dimensions & Mechanical data

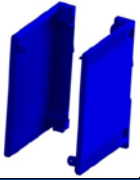
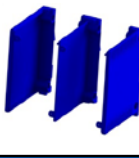
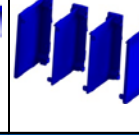



Housing Type and Description						
Number of Single Modules	1	2	3	4	5	6
						
Mechanical Construction	Die Cast Aluminium					
Material Housing	Die Cast Aluminium					
Dimensions - Width (mm)	42	72	102	132	162	192
Dimensions - H x D (mm)	138 x 122					
Dimensions - H x D (mm) incl. adapters and gland	165 x 133					
Mounting	DIN rail					
Weight Housing (gr)	360	530	697	865	1034	1200
Weight Wallmount Plate (gr)	67	119	172	223	277	329

Table 1 - Housing properties





Fiber Splice Box single modules				
Description	6 x SC Duplex	6 x LC Duplex	6 x ST Duplex	6 x E-2000 Duplex
				
Mechanical Construction	Steel (Powder coated)			
Material	Steel (Powder coated)			
Adapters	<ul style="list-style-type: none"> <li>• Green SC adapter APC zirconia ceramic sleeve</li> <li>• Blue SC adapter OS2 zirconia ceramic sleeve</li> <li>• Beige SC adapter OM1/2 phosphor bronze sleeve</li> <li>• Aqua SC adapter OM3/4 zirconia ceramic sleeve</li> </ul> <p>* SC Adapters also available in metal</p>	<ul style="list-style-type: none"> <li>• Green LC adapter APC zirconia ceramic sleeve</li> <li>• Blue LC adapter OS2 zirconia ceramic sleeve</li> <li>• Beige LC adapter OM1/2 phosphor bronze sleeve</li> <li>• Aqua LC adapter OM3/4 zirconia ceramic sleeve</li> </ul>	<ul style="list-style-type: none"> <li>• Blue ST adapter OS2 zirconia ceramic sleeve</li> <li>• Beige ST adapter OM1/2 phosphor bronze sleeve</li> <li>• Aqua ST adapter OM3/4 zirconia ceramic sleeve</li> </ul> <p>* ST Adapters also available in metal</p>	<ul style="list-style-type: none"> <li>• Green E-2000 adapter APC zirconia ceramic sleeve</li> <li>• Blue E-2000 adapter OS2 zirconia ceramic sleeve</li> <li>• Beige E-2000 adap OM1/2 phosphor bronze sleeve</li> <li>• Aqua E-2000 adapt OM3/4 zirconia ceramic sleeve</li> </ul>
Appr. Weight Module (gr)	235 (300 with metal adapters)			
Protection Class	IP40			
Cable Entry	<ul style="list-style-type: none"> <li>• 3 possible cable entries</li> <li>• 1 M16 Gland installed</li> <li>• 1 extra M16 Gland supplied</li> </ul>			
Maximum Diameter Cable	10 mm			
Cable Types	loose-tube, mini-breakout or breakout cables of up to 12 fibers			
Splice Tray	Accommodates 12x 1.3mm (e.g. ANT) or 12x 2.4-2.6mm (stacked) splice protectors / sleeves			

Table 2 – Single Optic Module properties



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Fiber Splice Box double modules				
Description	12 x SC Duplex	12 x LC Duplex	12 x ST Duplex	12 x E-2000 Duplex
<b>Mechanical Construction</b>				
<b>Material</b>	Steel (Powder coated)			
<b>Adapters</b>	<ul style="list-style-type: none"> <li>• Green SC adapter APC zirconia ceramic sleeve</li> <li>• Blue SC adapter OS2 zirconia ceramic sleeve</li> <li>• Beige SC adapter OM1/2 phosphor bronze sleeve</li> <li>• Aqua SC adapter OM3/4 zirconia ceramic sleeve</li> </ul> <p>* Adapters also available in metal</p>	<ul style="list-style-type: none"> <li>• Green LC adapter APC zirconia ceramic sleeve</li> <li>• Blue LC adapter OS2 zirconia ceramic sleeve</li> <li>• Beige LC adapter OM1/2 phosphor bronze sleeve</li> <li>• Aqua LC adapter OM3/4 zirconia ceramic sleeve</li> </ul>	<ul style="list-style-type: none"> <li>• Blue ST adapter OS2 zirconia ceramic sleeve</li> <li>• Beige ST adapter OM1/2 phosphor bronze sleeve</li> <li>• Aqua ST adapter OM3/4 zirconia ceramic sleeve</li> </ul> <p>* Adapters also available in metal</p>	<ul style="list-style-type: none"> <li>• Green E-2000 adapter APC zirconia ceramic sleeve</li> <li>• Blue E-2000 adapter OS2 zirconia ceramic sleeve</li> <li>• Beige E-2000 adapt OM1/2 phosphor bronze sleeve</li> <li>• Aqua E-2000 adapt OM3/4 zirconia ceramic sleeve</li> </ul>
<b>Appr. Weight Module (gr)</b>	450 (540 for metal adapters)			
<b>Protection Class</b>	IP40			
<b>Cable Entry</b>	<ul style="list-style-type: none"> <li>• 1 cable entry point</li> <li>• 1 M20 Gland installed</li> </ul>			
<b>Maximum Diameter Cable</b>	13 mm			
<b>Cable Types</b>	Loose-tube or mini-breakout cables of up to 24 fibers			
<b>Splice Tray</b>	Accommodates 12x1.3mm (e.g. ANT) or 12x2.4-2.6mm (stacked) splice protectors / sleeves on both sides of module			

**Table 3 – Double Optic Module properties**

Copper Patch Panel modules				
Description	4 x RJ45 Keystone Jack, Unshielded	4 x RJ45 Keystone Jack, Shielded	4 x RJ45 Coupler, Unshielded	4 x RJ45 Coupler, Shielded
<b>Mechanical Construction</b>				
<b>Material</b>	Steel (Powder coated)			
<b>Keystones / Couplers</b>	<ul style="list-style-type: none"> <li>• Cat 5e Modular Jack - Keyconnect AX101310 - black</li> <li>• Cat 6+ Modular Jack - Keyconnect AX101321 - black</li> <li>• Cat 6A / 10GX Modular Jack - Keyconnect AX102283 - black</li> </ul>	<ul style="list-style-type: none"> <li>• Cat 5e Shielded Modular Jack - Keyconnect AX104595 - metal</li> <li>• Cat 6+ Shielded Modular Jack - Keyconnect AX104596 - metal</li> <li>• Cat 6A / 10GX Shielded Modular Jack - Keyconnect AX104562 - metal</li> </ul>	<ul style="list-style-type: none"> <li>• Cat 6A Unshielded Coupler AX104024 - black</li> </ul>	<ul style="list-style-type: none"> <li>• Cat 6A Shielded Coupler AX104501 - black</li> </ul>
<b>Appr. Weight Module (gr)</b>	515	640	515	640
<b>Protection Class</b>	IP20			
<b>Cable Entry</b>	<ul style="list-style-type: none"> <li>• 1 cable entry point</li> <li>• with tie wrap fixing latch</li> </ul>			
<b>Maximum Diameter Cable</b>	4 x 7.5 mm			
<b>Cable Types</b>	<ul style="list-style-type: none"> <li>• Cat 5e Unshielded</li> <li>• Cat 6 Unshielded</li> <li>• Cat 6A Unshielded</li> </ul>	<ul style="list-style-type: none"> <li>• Cat 5e Shielded</li> <li>• Cat 6 Shielded</li> <li>• Cat 6A Shielded</li> <li>• Cat 7 Shielded</li> </ul>	<ul style="list-style-type: none"> <li>• Cat 5e Unshielded</li> <li>• Cat 6 Unshielded</li> <li>• Cat 6A Unshielded</li> </ul>	<ul style="list-style-type: none"> <li>• Cat 5e Shielded</li> <li>• Cat 6 Shielded</li> <li>• Cat 6A Shielded</li> <li>• Cat 7 Shielded</li> </ul>

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**Table 4 – Copper Module properties**

## Accessories

Accessories for Optical Fiber Modules				
	SC	LC	ST	E-2000
<b>Pigtails</b>	1 or 2 packs of 12 pigtails, 900 micron, 0.6 mtr in 12 different colours: <ul style="list-style-type: none"> <li>• SC / UPC SM 9/125, OS2</li> <li>• SC / APC SM 9/125, OS2</li> <li>• SC / PC MM 62.5/125, OM1</li> <li>• SC / PC MM 50/125, OM2</li> <li>• SC / PC MM 50/125, OM3</li> <li>• SC / PC MM 50/125, OM4</li> </ul>	1 or 2 packs of 12 pigtails, 900 micron, 0.6 mtr in 12 different colours: <ul style="list-style-type: none"> <li>• LC / UPC SM 9/125, OS2</li> <li>• LC / APC SM 9/125, OS2</li> <li>• LC / PC MM 62.5/125, OM1</li> <li>• LC / PC MM 50/125, OM2</li> <li>• LC / PC MM 50/125, OM3</li> <li>• LC / PC MM 50/125, OM4</li> </ul>	1 or 2 packs of 12 pigtails, 900 micron, 0.6 mtr in 12 different colours: <ul style="list-style-type: none"> <li>• ST / UPC SM 9/125, OS2</li> <li>• ST / PC MM 62.5/125, OM1</li> <li>• ST / PC MM 50/125, OM2</li> <li>• ST / PC MM 50/125, OM3</li> <li>• ST / PC MM 50/125, OM4</li> </ul>	1 or 2 packs of 12 pigtails, 900 micron, 0.6 mtr in 12 different colours: <ul style="list-style-type: none"> <li>• E-2000/UPC SM 9/125, OS2</li> <li>• E-2000/APC SM 9/125, OS2</li> <li>• E-2000/PC MM 62.5, OM1</li> <li>• E-2000/PC MM 50/125, OM2</li> <li>• E-2000/PC MM 50/125, OM3</li> <li>• E-2000/PC MM 50/125, OM4</li> </ul>
<b>Brilliance Field Installable Connector</b>	12 or 24 brilliance connectors SC, 900 micron: <ul style="list-style-type: none"> <li>• OM1 Beige - AX105205</li> <li>• OM2 Black - AX105206</li> <li>• OM3/4 Aqua - AX105207</li> <li>• OS2/PC Blue - AX105208</li> <li>• OS2/APC Green - AX105209</li> </ul>	12 or 24 brilliance connectors LC, 900 micron: <ul style="list-style-type: none"> <li>• OM1 Beige - AX105200</li> <li>• OM2 Black - AX105201</li> <li>• OM3/4 Aqua - AX105202</li> <li>• OS2 Blue - AX105203</li> </ul>	12 or 24 brilliance connectors ST, 900 micron: <ul style="list-style-type: none"> <li>• OM1 Beige - AX105210</li> <li>• OM2 Black - AX105211</li> <li>• OM3/4 Aqua - AX105212</li> <li>• OS2 Blue - AX105213</li> </ul>	-

**Table 5 - Accessories**

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## Ordering information

Please contact your Belden representative or customer service to verify your selected configuration.

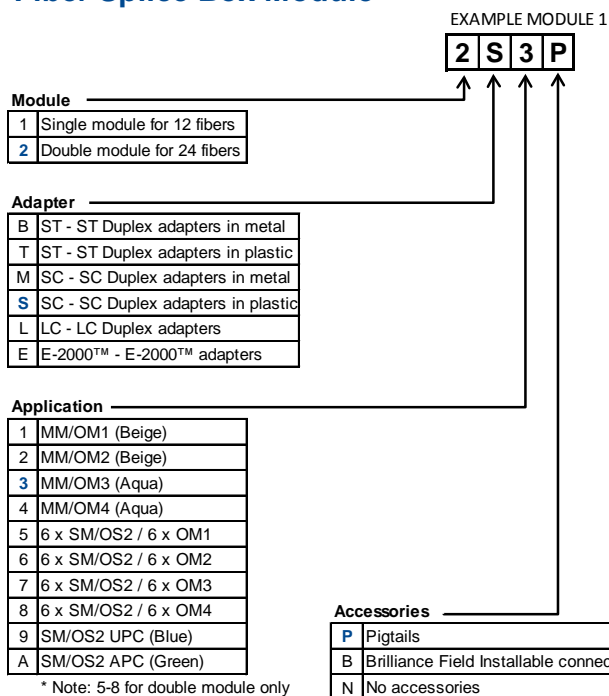
	HOUSING	MODULE 1	MODULE 2	MODULE 3	MODULE 4	MODULE 5	MODULE 6
	M I P P / L D /	2 S 3 P /	c u e 4 /	1 N N N /	/	/	/

### Housing

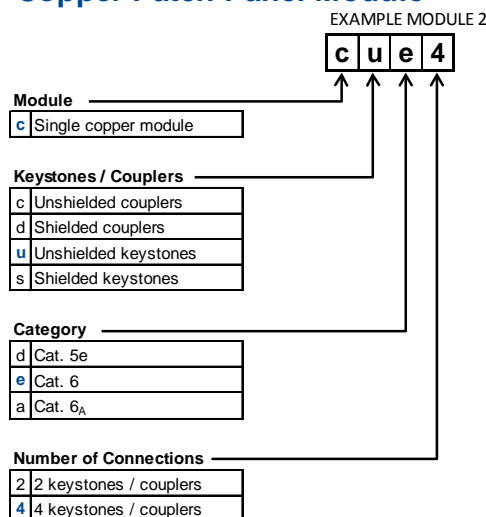
Housing	Mounting
X No Housing	H 2 x double module fiber
A 1 x single module	I 3 x double module fiber
B 2 x single module	J 1 x single + 1 x double fiber
C 3 x single module	K 1 x single + 2 x double fiber
D 4 x single module	L 2 x single + 1 x double fiber
E 5 x single module	M 2 x single + 2 x double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

D	Standard DIN Rail
W	Wall Mount Plate included
X	No Housing

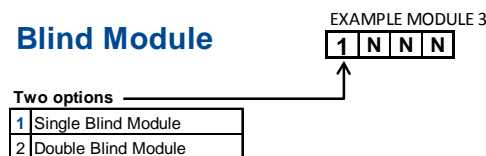
### Fiber Splice Box Module



### Copper Patch Panel Module



### Blind Module



For additional Fiber Splice Box and Copper Patch Panel accessories, please contact Customer Service.



Belden declares this product to be in compliance with the environmental regulations EU RoHS (Directive 2002/95/EC, 27 January 2003); this is valid for all material produced after the RoHS compliant date for this product.