

BC Series Terminal Blocks

for Power and Signal
Distribution in Hazardous Areas



- Feedthrough and disconnect terminals and a fuse holder*
- Combifoot for mounting on 15mm, 32mm and 35mm DIN rails
- Accepts Weidmuller Multicard marking tags
- Complete offering of accessories

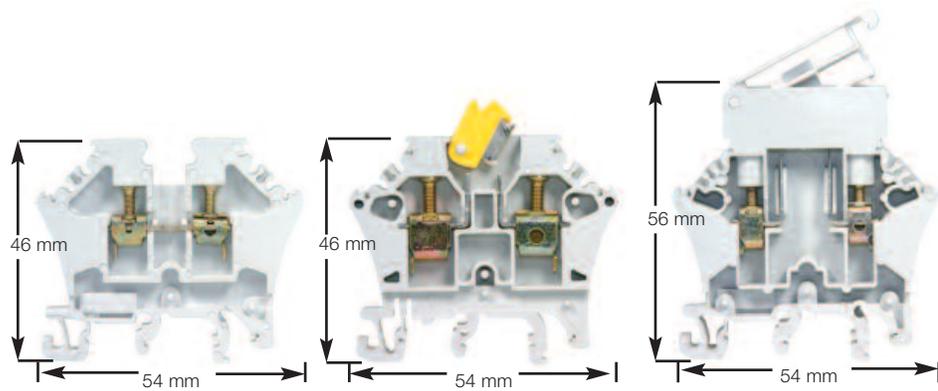
Emphatec has partnered with Unibloc to offer a small selection of terminal blocks. These are intended as accessories to Emphatec's DC power supplies but are also suited for general purpose use as well as Class 1 Division 2 applications. The BC2.5/4 is a 5mm wide feedthrough terminal while the BC4S is a 6mm wide lever disconnect terminal. The BC5F is a 5x20mm fuse holder* and is 8mm wide. All three terminals accept Weidmuller's

Dekafix and Multicard marking tags. Accessories such as partitions and jumper combs are available. The combifoot design allows a single terminal to be used on any of the commonly available DIN rails – 15mm, 32mm, 35x7.5mm and 35x15mm.

For Class 1 Division 2 applications the terminals have been tested for temperature rise and pull-out. The pull-out tests are not only for the wire

terminations but are also performed on the fuse lever. The lever must withstand a force of 15N to ensure it cannot be accidentally operated while under load and cause an arc. Generally only screw-in style fuse terminals would meet this requirement but the BC5F passes easily.

SPECIFICATIONS

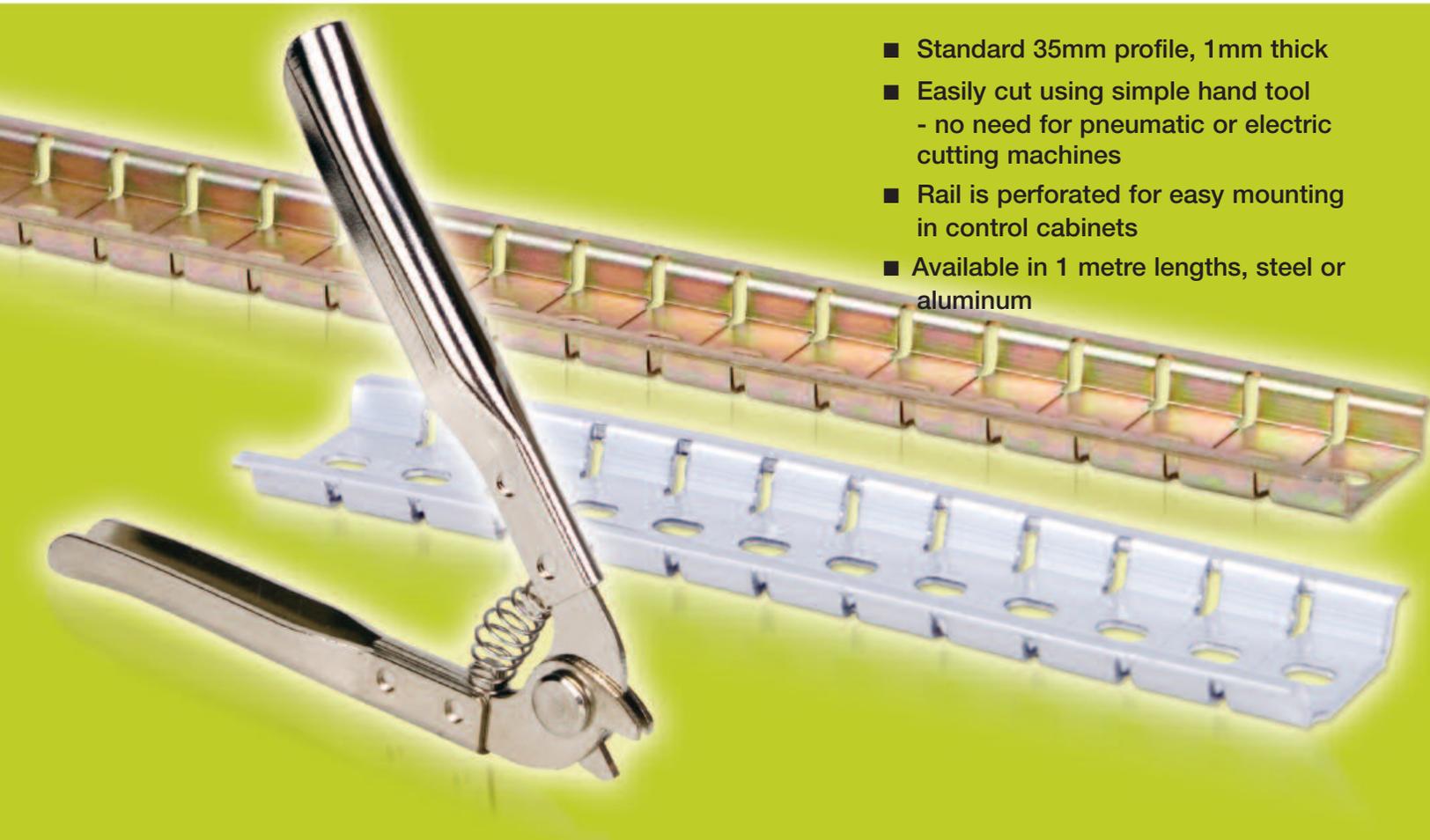


	BC2.5/4 Feedthrough	BC4S Disconnect	BC5F Fuse Holder
Catalog Number (standard package quantity)			
Grey	330016 (100)	330018 (100)	330017 (50)
Red	330087 (100)	330090 (100)	330085* (50)
Black	330086 (100)		
Dimensions			
Width† mm	5	6	8
Length mm	54	54	54
Height on 32mm rail mm	52.7	52.7	62.7
Height on 35x7.5mm rail mm	47.8	47.8	57.8
Height on 35x15mm rail mm	55.3	55.3	65.3
Height on 15mm rail mm	46.5	46.5	56.5
Terminations			
Wire size AWG / mm ²	20-12 / 0.5-4	20-10 / 0.5-6	20-8 / 0.5-10
Stripping length mm	10	12	6
Tightening torque Nm / in-lb	0.4 / 4	0.6 / 5	0.4 / 3.5
Ratings			
Voltage V	600	300	300
Current A	20	10	10
	CSA C22.2 No. 39-M1987 - Fuseholder Assemblies CSA C22.2 No. 158-1987 - Terminal Blocks CSA C22.2 No. 213-M1987 - Non-Incendive Electrical Equipment for Class 1 Division 2 Hazardous Locations		
Materials			
Housing	BASF Ultramid or LATI Latamid		
Flammability	UL94 – V0 (grey versions)		
Screws / clamps	Steel, yellow chromate plated		
Current bar	Tin plated copper		
Disconnect	N/A	Tin plated copper	N/A
Disconnect / fuse clips	N/A	Tin plated brass	
Accessories (standard package quantity)			
Endplate, 1.6mm with grey	330019 (20)		
Insulated jumper comb -	Consult factory	2 pole: 330028 (10) 3 pole: 330029 (10) 5 pole: 330030 (10) 10 pole: 330031 (10)	2 pole: 330024 (10) 3 pole: 330025 (10) 5 pole: 330026 (10) 10 pole: 330027 (10)
Cross-connection (top mounted)	2 pole: 330020 (10) 3 pole: 330021 (10) 5 pole: 330022 (10) 10 pole: 330023 (10)	N/A	
End Bracket- 32mm rail	Consult factory		
End bracket – 35mm rail	330089 (20)		
Marking tags	Consult factory		

Ground (PE) Terminal:
6.5mm wide, 54mm length, 55.3mm height on 35mm DIN rail
20-10AWG, 0.6Nm / 5 in-lb torque
Standard pack quantity: 50
Catalog number: 330084

* Only lever is red, body is grey.
† Tolerance of width is +0.1mm, -0mm

35mm DIN Rail and Cutting Tool



- Standard 35mm profile, 1mm thick
- Easily cut using simple hand tool
- no need for pneumatic or electric cutting machines
- Rail is perforated for easy mounting in control cabinets
- Available in 1 metre lengths, steel or aluminum

Emphatec is excited to offer a 35mm DIN rail that can be cut to the desired length using only a simple hand tool. Snip each side of the perforated rail and flex it a couple times and you have the desired length – no saws or expensive cutting machines. The resulting cut requires no further preparation.

This DIN rail is ideal for contractors and anyone working in the field where it is

not practical to use pneumatic cutting machines or manually operated shears. Steel and aluminum rails are available and the standard length is 1m. The steel rail is zinc plated while the aluminum has an Alumite plating to prevent corrosion.

Only 35mm DIN rail is offered by Emphatec.

CATALOG NUMBERS

Aluminum rail 1m	330038
Steel rail 1m	330039
Cutting tool	330040

Fuse Holders versus Fuse Terminals

“Fuse holder” and “fuse terminal” sound like different names for the same thing. Both can mount on DIN rail, hold a fuse, and provide wire terminations. What’s the difference? There may not be much physical difference but how they are tested for safety certification differs considerably.

Fuse terminals have been tested to the appropriate terminal block standard (CSA 22.2 No. 158 in Canada). The standard does not require the terminal to be tested with a fuse installed and it is more likely that the testing was conducted with a metal slug in place of a fuse. European standards require testing with fuses installed and this can explain why fuse terminals have higher current ratings in North America than in Europe – the slug has a lower resistance than a fuse and thus a higher current can be passed before the upper temperature limit is reached.

Fuse holders are tested with fuses installed but they are tested for more than just temperature rise (related to current rating) and clearance and creepage distances (related to the voltage rating). Fuse holders must also pass a series of pull tests. These not only ensure the wires are terminated securely but also that the fuse cannot be accidentally dislodged or removed under load and cause an arc. Passing this pull test allows a fuse holder to be used in Class 1 Division 2 / Zone 2 applications.