

## DIN rail modules

### MCR-PLUGTRAB PT

- Seamless plug-in signal circuit protection
- Maximum ease of maintenance thanks to the two-piece design
- Base element remains an integral part of the installation
- Impedance-neutral disconnection of connector for test and maintenance purposes
- Connectors can be checked with CHECKMASTER

#### PT 1x2...

- Protection for a floating signal circuit
- Installed in conjunction with the PT 1x2...-BE base element

#### PT 2x1...

- Protection for two wires with common reference potential
- Installed in conjunction with the PT 2x1...-BE base element

#### \* Note:

Various grounding options for the base elements:

**PT .x.-BE** connections 9/10 (GND) directly connected to the mounting foot.

**PT .x.+F-BE** connections 9/10 (GND) connected to the mounting foot via a gas-filled surge arrester.

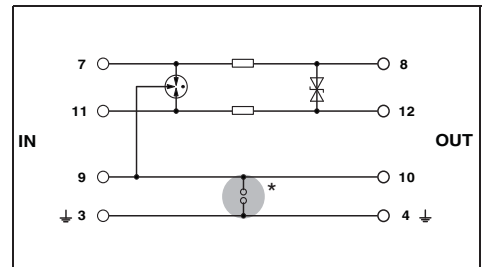
#### Notes:

Dimensional drawings starting on page 240  
Approvals starting on page 252



Double wire (loop), floating

Total width 17.7 mm



#### Technical data

Electrical data	... 5DC	... 12DC	... 24DC	... 48DC
IEC category / EN type	C1 / C2 / C3 / D1	C1 / C2 / C3 / D1	C1 / C2 / C3 / D1	C1 / C2 / C3 / D1
Maximum continuous operating voltage $U_c$	DC / AC 6 V DC / 4 V AC	DC / AC 13 V DC / 9 V AC	DC / AC 28 V DC / 20 V AC	DC / AC 53 V DC / 37 V AC
Lightning test curr. $I_{imp}$ (10/350) $\mu$ s	2.5 kA	2.5 kA	2.5 kA	2.5 kA
Nominal current $I_n$	450 mA (45°C)	450 mA (45°C)	450 mA (45°C)	450 mA (45°C)
Nominal discharge surge current $I_n$ (8/20) $\mu$ s				
	Core-Core / Core-Ground	Core-Core / Core-Ground	Core-Core / Core-Ground	Core-Core / Core-Ground
Total surge current (8/20) $\mu$ s	10 kA / 10 kA	10 kA / 10 kA	10 kA / 10 kA	10 kA / 10 kA
Output voltage limitation at 1 kV/ $\mu$ s	20 kA	20 kA	20 kA	20 kA
	Core-Core	Core-Core	Core-Core	Core-Core
	$\leq 10$ V	$\leq 18$ V	$\leq 40$ V	$\leq 70$ V
	Core-Ground	Core-Ground	Core-Ground	Core-Ground
	$\leq 450$ V	$\leq 450$ V	$\leq 450$ V	$\leq 450$ V
Cut-off frequency $f_g$ (3 dB)				
	Symmetrical/asymmetrical in the 50 $\Omega$ system	Symmetrical/asymmetrical in the 50 $\Omega$ system	Symmetrical/asymmetrical in the 50 $\Omega$ system	Symmetrical/asymmetrical in the 50 $\Omega$ system
Resistance per path	Typ. 1 MHz / - 2.2 $\Omega$	Typ. 3 MHz / - 2.2 $\Omega$	Typ. 6 MHz / - 2.2 $\Omega$	Typ. 10 MHz / - 2.2 $\Omega$
General data				
Connection data solid / stranded / AWG	0.2 ... 4 mm <sup>2</sup> / 0.2 ... 2.5 mm <sup>2</sup> / 24 - 12			
Temperature range	-40°C ... 85°C			
Degree of protection according to IEC 60529/EN 60529	IP20			
Inflammability class according to UL 94	V0			
Test standards	IEC 61643-21 / DIN EN 61643-21 / UL 497B			

#### Ordering data

Description	Voltage $U_N$	Type	Order No.	Pcs. / Pkt.
<b>PLUGTRAB connector</b> , with protective circuit for inserting in PT base element	5 V DC	PT 1X2- 5DC-ST	2856016	10
	12 V DC	PT 1X2-12DC-ST	2856029	10
	24 V DC	PT 1X2-24DC-ST	2856032	10
	12 V AC			
	24 V AC			
	48 V DC	PT 1X2-48DC-ST	2803658	10
<b>PLUGTRAB base element</b> , for mounting on NS 35 Bridge between 3/4 ( $\frac{1}{2}$ ) and 9/10 Gas-filled surge arrester between 3/4 ( $\frac{1}{2}$ ) and 9/10		PT 1X2-BE	2856113	10
		PT 1X2+F-BE	2856126	10

#### Accessories

Shield fast connection	Order No.	Pcs. / Pkt.
For $\varnothing$ 3 - 6 mm	2839295	10
For $\varnothing$ 5 - 10 mm	2839512	10
<b>Labeling material</b>	ZBF ...., see page 125	



Double wire (loop), floating

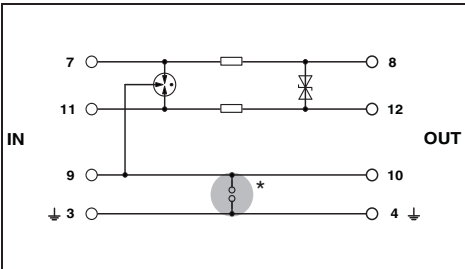


2-wire, with common reference potential

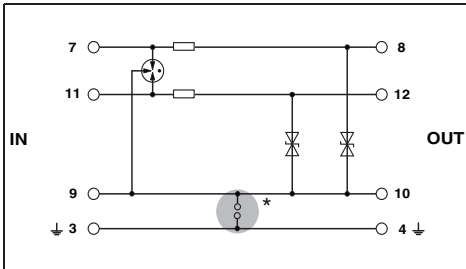


2-wire, with common reference potential

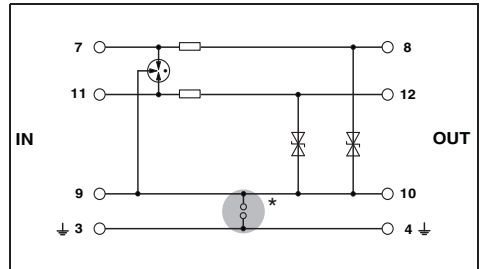
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Technical data	
... 12AC	... 24AC
C1 / C2 / C3 / D1	C1 / C2 / C3 / D1
18 V DC / 13 V AC	40 V DC / 28 V AC
2.5 kA 450 mA (45°C)	2.5 kA 450 mA (45°C)
10 kA / 10 kA 20 kA	10 kA / 10 kA 20 kA
≤ 25 V ≤ 450 V	≤ 55 V ≤ 450 V
Typ. 4 MHz / - 2.2 Ω	Typ. 8 MHz / - 2.2 Ω
0.2 ... 4 mm <sup>2</sup> / 0.2 ... 2.5 mm <sup>2</sup> / 24 - 12 -40°C ... 85°C IP20 V0 IEC 61643-21 / DIN EN 61643-21 / UL 497B	

Technical data		
... 5DC	... 12DC	... 24DC
C1 / C2 / C3 / D1	C1 / C2 / C3 / D1	C1 / C2 / C3 / D1
6 V DC / 4 V AC	13 V DC / 9 V AC	28 V DC / 20 V AC
2.5 kA 300 mA (45°C)	2.5 kA 300 mA (45°C)	2.5 kA 300 mA (45°C)
- / 10 kA 20 kA	- / 10 kA 20 kA	- / 10 kA 20 kA
- ≤ 10 V	- ≤ 18 V	- ≤ 40 V
- / Typ. 1 MHz 4.7 Ω	- / Typ. 3 MHz 4.7 Ω	- / Typ. 6 MHz 4.7 Ω
0.2 ... 4 mm <sup>2</sup> / 0.2 ... 2.5 mm <sup>2</sup> / 24 - 12 -40°C ... 85°C IP20 V0 IEC 61643-21 / DIN EN 61643-21 / UL 497B		

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- ≤ 25 V	- ≤ 55 V
- / Typ. 4 MHz 4.7 Ω	- / Typ. 8 MHz 4.7 Ω
0.2 ... 4 mm <sup>2</sup> / 0.2 ... 2.5 mm <sup>2</sup> / 24 - 12 -40°C ... 85°C IP20 V0 IEC 61643-21 / DIN EN 61643-21 / UL 497B	

Ordering data		
Type	Order No.	Pcs. / Pkt.
PT 1X2-12AC-ST	2856045	10
PT 1X2-24AC-ST	2856058	10
PT 1X2-BE	2856113	10
PT 1X2+F-BE	2856126	10

Ordering data		
Type	Order No.	Pcs. / Pkt.
PT 2X1-5DC-ST	2856061	10
PT 2X1-12DC-ST	2856074	10
PT 2X1-24DC-ST	2856087	10
PT 2X1-BE	2856139	10
PT 2X1+F-BE	2856142	10

Ordering data		
Type	Order No.	Pcs. / Pkt.
PT 2X1-12AC-ST	2856090	10
PT 2X1-24AC-ST	2856100	10
PT 2X1-BE	2856139	10
PT 2X1+F-BE	2856142	10

Accessories		
SSA 3-6	2839295	10
SSA 5-10	2839512	10
ZBF ..., see page 125		

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