

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.

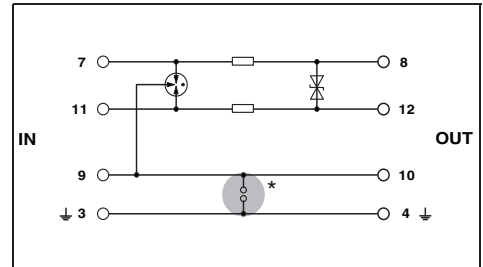
Notes:

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
		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	13 V DC / 9 V AC	28 V DC / 20 V AC	53 V DC / 37 V AC
Lightning test curr. I_{imp} (10/350) μ s	Per path	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) μ s					
	Core-Core / Core-Ground	10 kA / 10 kA 20 kA	10 kA / 10 kA 20 kA	10 kA / 10 kA 20 kA	10 kA / 10 kA 20 kA
Total surge current (8/20) μ s					
Output voltage limitation at 1 kV/ μ s					
	Core-Core	≤ 10 V	≤ 18 V	≤ 40 V	≤ 70 V
	Core-Ground	≤ 450 V	≤ 450 V	≤ 450 V	≤ 450 V
Cut-off frequency f_g (3 dB)					
	Symmetrical/asymmetrical in the 50 Ω system	Typ. 1 MHz / - 2.2 Ω	Typ. 3 MHz / - 2.2 Ω	Typ. 6 MHz / - 2.2 Ω	Typ. 10 MHz / - 2.2 Ω
Resistance per path					
General data					
Connection data solid / stranded / AWG		0.2 ... 4 mm ² / 0.2 ... 2.5 mm ² / 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.
PLUGTRAB connector , 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			
PLUGTRAB base element , for mounting on NS 35	48 V DC	PT 1X2-48DC-ST	2803658	10
		PT 1X2-BE	2856113	10
		PT 1X2+F-BE	2856126	10

Accessories

Shield fast connection			
For $\varnothing$ 3 - 6 mm	SSA 3-6	2839295	10
For $\varnothing$ 5 - 10 mm	SSA 5-10	2839512	10
Labeling material	ZBF ..., see page 125		



Double wire (loop), floating

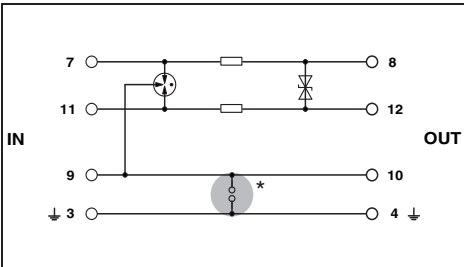


2-wire, with common reference potential

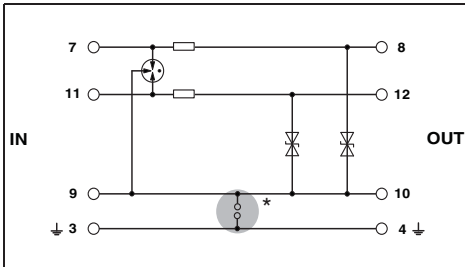


2-wire, with common reference potential

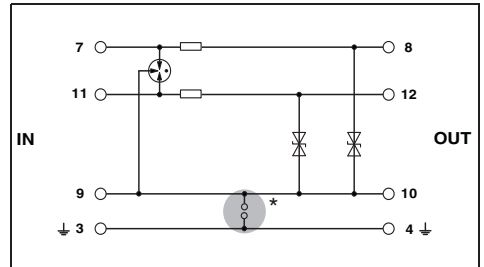
Total width 17.7 mm



Total width 17.7 mm



Total width 17.7 mm



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	2.5 kA
450 mA (45°C)	450 mA (45°C)
10 kA / 10 kA	10 kA / 10 kA
20 kA	20 kA
≤ 25 V	≤ 55 V
≤ 450 V	≤ 450 V
Typ. 4 MHz / -	Typ. 8 MHz / -
2.2 Ω	2.2 Ω

0.2 ... 4 mm² / 0.2 ... 2.5 mm² / 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	2.5 kA	2.5 kA
300 mA (45°C)	300 mA (45°C)	300 mA (45°C)
- / 10 kA	- / 10 kA	- / 10 kA
20 kA	20 kA	20 kA
-	-	-
≤ 10 V	≤ 18 V	≤ 40 V
- / Typ. 1 MHz	- / Typ. 3 MHz	- / Typ. 6 MHz
4.7 Ω	4.7 Ω	4.7 Ω

0.2 ... 4 mm² / 0.2 ... 2.5 mm² / 24 - 12
 -40°C ... 85°C
 IP20
 V0

IEC 61643-21 / DIN EN 61643-21 / UL 497B

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	2.5 kA
300 mA (45°C)	300 mA (45°C)
- / 10 kA	- / 10 kA
20 kA	20 kA
-	-
≤ 25 V	≤ 55 V
- / Typ. 4 MHz	- / Typ. 8 MHz
4.7 Ω	4.7 Ω

0.2 ... 4 mm² / 0.2 ... 2.5 mm² / 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

Accessories

SSA 3-6	2839295	10
SSA 5-10	2839512	10

ZBF ..., see page 125

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

Accessories

SSA 3-6	2839295	10
SSA 5-10	2839512	10

ZBF ..., see page 125

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