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Surge protection plug - PT 4X1-48AC-ST - 2804856

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Protective plug PT with protective circuit for 4 conductors of signal circuits grounded on one side. Nominal voltage: 48 V AC


The figure shows the PT 4x1- 24 DC-ST version

Why buy this product

- ✓ Plugs can be checked with CHECKMASTER
- ✓ Installed in conjunction with the PT 4x1...-BE base element
- ✓ Maximum ease of maintenance thanks to the two-piece design
- ✓ Base element remains an integral part of the installation
- ✓ Consistent plug-in signal circuit protection
- ✓ Protection for four conductors with common reference potential
- ✓ Impedance-neutral disconnection of plug for test and maintenance purposes



Key Commercial Data

Packing unit	10 STK
GTIN	
GTIN	4046356339865

Technical data

Dimensions

Height	45 mm
Width	17.7 mm
Depth	52 mm
Horizontal pitch	1 Div.
Complete module height	90 mm
Complete module width	17.7 mm
Complete module depth	65.5 mm

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Technical data

Ambient conditions

Ambient temperature (operation)	-40 °C ... 85 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Degree of protection	IP20

General

Housing material	PA 6.6
Flammability rating according to UL 94	V-0
Color	jet black RAL 9005
Standards for clearances and creepage distances	VDE 0110-1
	IEC 60664-1
Mounting type	On base element
Design	Male
Direction of action	Line-Line & Line-Signal Ground/Shield & optional Signal Ground/Shield-Earth Ground
Arrester can be tested with CHECKMASTER from software version:	From SW rev. 3.17

Additional descriptions

Note	Technical data is valid in association with the following specified base elements:
	with PT 4x1+F-BE
	with PT 4x1-BE

Protective circuit

IEC test classification	C1
	C2
	C3
	D1
Nominal voltage U_N	48 V AC
Maximum continuous voltage U_C	77 V DC
	55 V AC
Rated current	300 mA (45°C)
Operating effective current I_C at U_C	$\leq 5 \mu A$
Residual current I_{PE}	$\leq 1 \mu A$ (with PT 4X1+F-BE)
	$\leq 20 \mu A$ (with PT 4X1-BE)
Nominal discharge current I_n (8/20) μs (core-earth)	10 kA
Pulse discharge current I_{imp} (10/350) μs	2.5 kA
Total discharge current I_{total} (8/20) μs	20 kA
Max. discharge current I_{max} (8/20) μs maximum (Core-Earth)	10 kA (per path)
	20 kA (in total)
Nominal pulse current I_{an} (10/1000) μs (Core-Earth)	12 A
Output voltage limitation at 1 kV/ μs (core-GND) spike	$\leq 110 V$ (with PT 4X1-BE)
Residual voltage at I_n (conductor-GND)	$\leq 160 V$
Residual voltage with I_{an} (10/1000) μs (conductor-GND)	$\leq 125 V$

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Technical data

Protective circuit

Voltage protection level U_p (core-ground)	≤ 150 V (C2 - 10 kV / 5 kA with PT 4X1-BE)
Response time t_A (core-earth)	≤ 1 ns (with PT 4X1+F-BE)
	≤ 1 ns (with PT 4X1-BE)
Input attenuation a_E , asym.	0.5 dB (≤ 2.5 MHz / 50 Ω)
	0.2 dB (≤ 0.5 MHz / 150 Ω)
	0.1 dB (≤ 0.1 MHz / 600 Ω)
Cut-off frequency f_g (3 dB), asym. (PE) in 50 Ohm system	typ. 10 MHz
Cut-off frequency f_g (3 dB), asym. (PE) in 150 Ohm system	typ. 3.5 MHz
Cut-off frequency f_g (3 dB), asym. (PE) in 600 Ohm system	typ. 900 kHz
Capacity (core-earth)	typ. 400 pF (with PT 4X1-BE)
	typ. 2 pF (with PT 4X1+F-BE)
Resistance in series	4.7 $\Omega \pm 10$ %
Surge protection fault message	None
Max. required back-up fuse	315 mA (e.g. T (IEC 127-2/III))
Impulse durability (conductor-ground)	C2 - 10 kV/5 kA
	D1 - 2.5 kA

Connection data

Connection method	Screw connection (in connection with the base element)
Connection method IN	PLUGTRAB plug-in system
Connection method OUT	PLUGTRAB plug-in system
Screw thread	M3
Tightening torque	0.5 Nm
Stripping length	8 mm
Conductor cross section flexible	0.2 mm ² ... 2.5 mm ²
Conductor cross section solid	0.2 mm ² ... 4 mm ²
Conductor cross section AWG	24 ... 12

Standards and Regulations

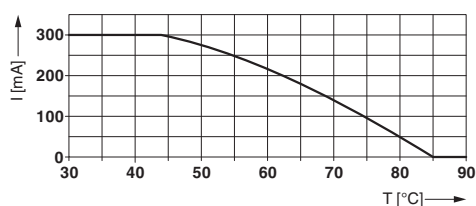
Standards/specifications	IEC 61643-21 A1:2008 (modified)
	EN 61643-21 A1:2009

Drawings

Pictogram

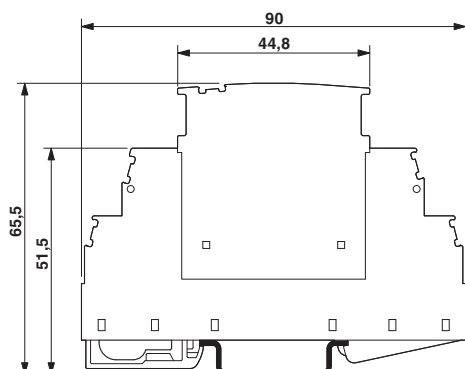


Diagram

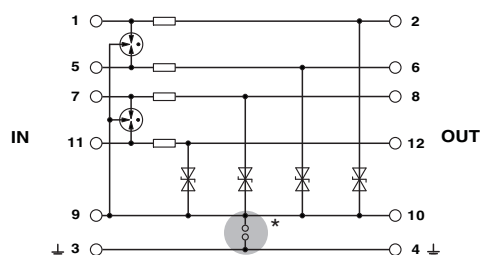


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Dimensional drawing



Circuit diagram



The figure shows the complete module consisting of a base element and connector

Approvals

Approvals

Approvals

EAC

Ex Approvals

Approval details

EAC



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