

Surge protection plug - PT 2X2-HF- 5 DC-ST - 2839567

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Protective plug PT with HF protective circuit for two 2-core floating signal circuits. Nominal voltage: 5 V DC

The illustration shows the version PT 2x2-HF-12 DC-ST

Why buy this product

- Plugs can be checked with CHECKMASTER
- Maximum ease of maintenance thanks to the two-piece design
- Base element remains an integral part of the installation
- Protection for fieldbus systems, PROFIBUS, and signal circuits with 3 to 5-wire technology
- Consistent plug-in signal circuit protection
- Impedance-neutral disconnection of plug for test and maintenance purposes



Key Commercial Data

Packing unit	10 STK
GTIN	 4 017918 591106

Technical data

Dimensions

Height	45 mm
Width	17.7 mm
Depth	52 mm
Horizontal pitch	1 Div.

Ambient conditions

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

General

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Technical data

General

Housing material	PA
Flammability rating according to UL 94	V0
Color	black
Standards for clearances and creepage distances	DIN VDE 0110-1
	IEC 60664-1
Mounting type	On base element
Type	DIN rail module, two-section, divisible
Number of positions	5
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. 1.00

Protective circuit

IEC test classification	C1
	C2
	C3
	D1
VDE requirement class	C1
	C2
	C3
	D1
Nominal voltage U_N	5 V DC
Maximum continuous voltage U_C	5.2 V DC
	3.6 V AC
Maximum continuous voltage U_C (wire-wire)	5.2 V DC
	3.6 V AC
Maximum continuous voltage U_C (wire-ground)	5.2 V DC (with PT 2x2-BE)
Nominal current I_N	450 mA (45°C)
Operating effective current I_C at U_C	$\leq 2000 \mu A$
Residual current I_{PE}	$\leq 4 \mu A$ (with PT 2x2-BE)
	$\leq 1 \mu A$ (with PT 2x2+F-BE)
Nominal discharge current I_n (8/20) μs (Core-Core)	10 kA
Nominal discharge current I_n (8/20) μs (Core-Earth)	10 kA
Total surge current (8/20) μs	20 kA
Max. discharge current I_{max} (8/20) μs maximum (Core-Core)	10 kA
Max. discharge current I_{max} (8/20) μs maximum (Core-Earth)	10 kA
Nominal pulse current I_{an} (10/1000) μs (Core-Core)	90 A
Impulse discharge current (10/350) μs , peak value I_{imp}	2.5 kA
Output voltage limitation at 1 kV/ μs (Core-Core) spike	$\leq 45 V$
Output voltage limitation at 1 kV/ μs (Core-Earth) spike	$\leq 450 V$
	$\leq 1 kV$ (with PT 2x2+F-BE)

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Technical data

Protective circuit

Output voltage limitation at 1 kV/μs (Core-Core) static	≤ 15 V
Residual voltage at I _n (conductor-conductor)	≤ 12 V
Residual voltage with I _{an} (10/1000)μs (conductor-conductor)	≤ 12 V
Voltage protection level U _p (core-core)	≤ 100 V (C2 - 10 kV/5 kA)
Voltage protection level U _p (core-ground)	≤ 450 V (C2 - 10 kV/5 kA)
Response time t _A (Core-Core)	≤ 500 ns
Response time t _A (Core-Earth)	≤ 500 ns
Input attenuation aE, sym.	0.2 dB (≤ 5 MHz)
Cut-off frequency f _g (3 dB), sym. in 100 Ohm system	typ. 70 MHz
Capacity (Core-Core)	typ. 30 pF
Resistance in series	2.2 Ω
Max. required back-up fuse	500 mA (e.g. T in acc. with IEC 127-2/III)
Impulse durability (conductor-conductor)	C2 - 10 kV/5 kA
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 type IN	PLUGTRAB plug-in system
Connection type OUT	PLUGTRAB plug-in system
Conductor cross section flexible min.	0.2 mm ²
Conductor cross section flexible max.	2.5 mm ²
Conductor cross section solid min.	0.2 mm ²
Conductor cross section solid max.	4 mm ²
Conductor cross section AWG min.	24
Conductor cross section AWG max.	12

Standards and Regulations

Standards/regulations	IEC 61643-21
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Classifications

eCl@ss

eCl@ss 4.0	27140201
eCl@ss 4.1	27130801
eCl@ss 5.0	27130801
eCl@ss 5.1	27130801
eCl@ss 6.0	27130807
eCl@ss 7.0	27130807
eCl@ss 8.0	27130807
eCl@ss 9.0	27130807

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Classifications

ETIM

ETIM 2.0	EC000943
ETIM 3.0	EC000943
ETIM 4.0	EC000943
ETIM 5.0	EC000943

UNSPSC

UNSPSC 6.01	30212010
UNSPSC 7.0901	39121610
UNSPSC 11	39121610
UNSPSC 12.01	39121610
UNSPSC 13.2	39121620

Approvals

Approvals

Approvals

UL Listed / EAC / EAC

Ex Approvals

UL Listed / cUL Listed / cULus Listed

Approvals submitted

Approval details

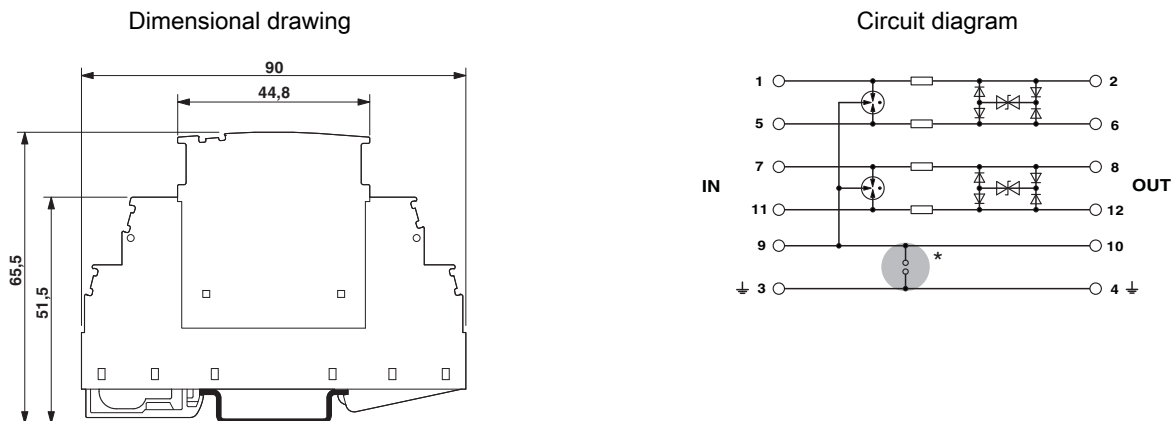
UL Listed	
Nominal current IN	0.45 A
Nominal voltage UN	5 V

EAC

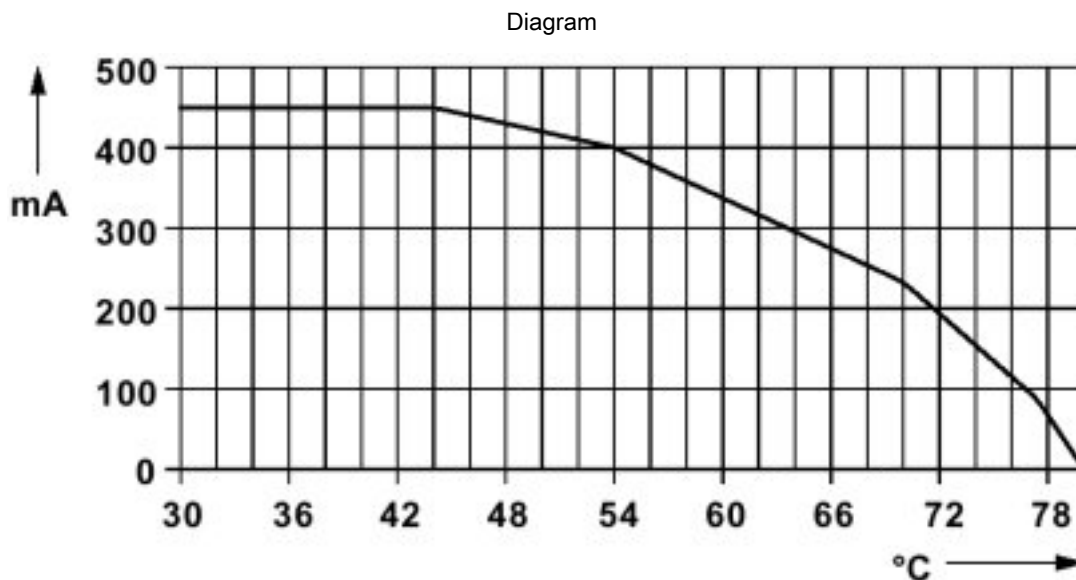
EAC

Drawings

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



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