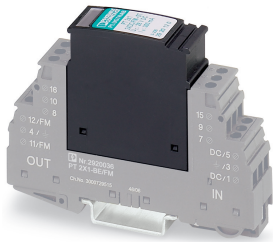


Surge protection plug - PT 2X1- 5DC-ST - 2856061

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Surge protection plug for the base element, coarse and fine protection for two signal wires with common reference potential, common mode voltage coarse protection to ground. Design: 5 V DC

Your advantages

- ✓ Easy testing and documentation with CHECKMASTER 2 with pluggable protective modules
- ✓ Maximum ease of maintenance thanks to the two-piece design
- ✓ Easy selection for all possible demands in MCR applications with a complete product portfolio
- ✓ The signal is not influenced during maintenance work, thanks to the impedance-neutral insertion and removal of protective plugs



Key Commercial Data

Packing unit	1 pc
GTIN	 4 017918 599249
GTIN	4017918599249
Weight per Piece (excluding packing)	20.390 g
Custom tariff number	85363010
Country of origin	Germany

Technical data

Dimensions

Height	44.8 mm
Width	17.5 mm
Depth	51.7 mm
Horizontal pitch	1 Div.
Complete module height	90 mm

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Technical data

Dimensions

Complete module width	17.7 mm
Complete module depth	65.5 mm

Ambient conditions

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

General

Housing material	PA 6.6
Flammability rating according to UL 94	V-0
Color	black
Standards for clearances and creepage distances	VDE 0110-1
	IEC 60664-1
Mounting type	on base element
Type	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. 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	6 V DC
	4 V AC
Rated current	300 mA (45 °C)
Operating effective current I_C at U_C	≤ 1 mA
Residual current I_{PE}	≤ 1 μ A (with PT 2X1+F-BE)
	≤ 2 mA (Directly grounded)
Nominal discharge current I_n (8/20) μ s (line-earth)	10 kA
Pulse discharge current I_{imp} (10/350) μ s	2.5 kA (per path)
Total discharge current I_{total} (8/20) μ s	20 kA
Max. discharge current I_{max} (8/20) μ s maximum (line-earth)	10 kA

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Technical data

Protective circuit

Nominal pulse current I_{an} (10/1000) μ s (line-earth)	125 A
Output voltage limitation at 1 kV/ μ s (line-earth) spike	≤ 14 V
	≤ 600 V (with PT 2X1+F-BE)
Output voltage limitation at 1 kV/ μ s (line-earth) static	≤ 10 V
Residual voltage at I_n (line-earth)	≤ 10 V
Residual voltage with I_{an} (10/1000) μ s (line-earth)	≤ 12 V
Voltage protection level U_p (line-earth)	≤ 50 V (C2 - 10 kV / 5 kA)
Response time t_A (line-earth)	≤ 1 ns
Input attenuation aE, asym.	0.5 dB (≤ 200 kHz)
Cut-off frequency f_g (3 dB), asym. (PE) in 50 Ω system	typ. 1 MHz
Capacity (line-earth)	3 nF
Resistance per path	4.7 Ω (1-2/5-6/7-8/11-12)
Surge protection fault message	none
Max. required back-up fuse	315 mA (T)
Impulse durability (line-earth)	C2 - 10 kV / 5 kA
	D1 - 2.5 kA

Connection data

Connection method	Screw connection (in connection with the base element)
Screw thread	M3
Tightening torque	0.8 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/regulations	IEC 61643-21
	DIN EN 61643-21
	UL 497B
Standards/specifications	IEC 61643-21 2000

Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

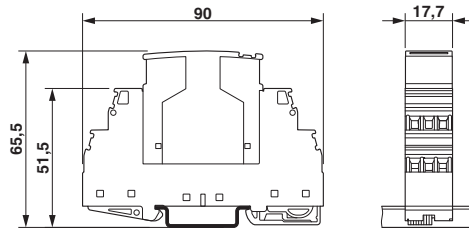
Drawings

Surge protection plug - PT 2X1- 5DC-ST - 2856061

Pictogram

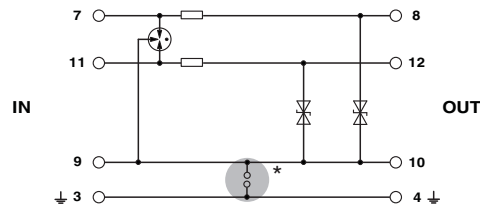


Dimensional drawing



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

Circuit diagram



Classifications

eCl@ss

eCl@ss 10.0.1	27130807
eCl@ss 11.0	27130807
eCl@ss 4.0	27130800
eCl@ss 4.1	27130800
eCl@ss 5.0	27130800
eCl@ss 5.1	27130800
eCl@ss 6.0	27130800
eCl@ss 7.0	27130807
eCl@ss 9.0	27130807

ETIM

ETIM 2.0	EC000943
ETIM 3.0	EC000943
ETIM 4.0	EC000943
ETIM 6.0	EC000943
ETIM 7.0	EC000943

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Classifications

UNSPSC

UNSPSC 6.01	30212010
UNSPSC 7.0901	39121610
UNSPSC 11	39121610
UNSPSC 12.01	39121610
UNSPSC 13.2	39121620
UNSPSC 18.0	39121620
UNSPSC 19.0	39121620
UNSPSC 20.0	39121620
UNSPSC 21.0	39121620

Approvals

Approvals

Approvals

UL Listed / EAC

Ex Approvals

UL Listed / cUL Listed / cULus Listed

Approval details

UL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 138168
Nominal voltage UN	5 V		
Nominal current IN	0.3 A		

EAC		RU C- DE.*09.B.00169
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