

Surge protection plug - PT 2X1-12DC-ST - 2856074

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)




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: 12 V DC

Your advantages

- ✔ Plugs can be checked with CHECKMASTER
- ✔ Installed in conjunction with the PT 2x1...-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 two conductors with common reference potential
- ✔ Impedance-neutral disconnection of plug for test and maintenance purposes



Key Commercial Data

Packing unit	10 pc
GTIN	 4 017918 599171
GTIN	4017918599171

Technical data

Dimensions

Height	44.8 mm
Width	17.5 mm
Depth	51.7 mm
Horizontal pitch	1 Div.
Complete module height	90 mm
Complete module width	17.7 mm
Complete module depth	65.5 mm

Ambient conditions

Surge protection plug - PT 2X1-12DC-ST - 2856074

Technical data

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	12 V DC
Maximum continuous voltage U_C	13 V DC
	9 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 2X1+F-BE)
	$\leq 10 \mu A$ (Directly grounded)
Nominal discharge current I_n (8/20) μs (line-earth)	10 kA
Pulse discharge current I_{imp} (10/350) μs	2.5 kA (per path)
Total discharge current I_{total} (8/20) μs	20 kA
Max. discharge current I_{max} (8/20) μs maximum (line-earth)	10 kA
Nominal pulse current I_{an} (10/1000) μs (line-earth)	67 A
Output voltage limitation at 1 kV/ μs (line-earth) spike	$\leq 23 V$
	$\leq 600 V$ (with PT 2X1+F-BE)
Output voltage limitation at 1 kV/ μs (line-earth) static	$\leq 18 V$
Residual voltage at I_n (line-earth)	$\leq 18 V$
Residual voltage with I_{an} (10/1000) μs (line-earth)	$\leq 23 V$
Voltage protection level U_p (line-earth)	$\leq 65 V$ (C2 - 10 kV / 5 kA)

Surge protection plug - PT 2X1-12DC-ST - 2856074

Technical data

Protective circuit

Response time t_A (line-earth)	≤ 1 ns
Input attenuation aE, asym.	0.5 dB (≤ 600 kHz)
Cut-off frequency f_g (3 dB), asym. (PE) in 50 Ohm system	typ. 3 MHz
Capacity (line-earth)	1.5 nF
Resistance in series	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

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

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

Approvals

Approvals

Approvals

DNV GL / UL Listed / EAC / EAC

Ex Approvals

UL Listed / cUL Listed / cULus Listed

Approval details

Surge protection plug - PT 2X1-12DC-ST - 2856074

Approvals

DNV GL		https://approvalfinder.dnvgl.com/	TAE00001N6
--------	--	---	------------

UL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 138168
Nominal voltage UN		12 V	
Nominal current IN		0.3 A	

EAC		EAC-Zulassung
-----	--	---------------

EAC		RU C- DE.A*30.B01561
-----	--	-------------------------

Phoenix Contact 2019 © - all rights reserved
<http://www.phoenixcontact.com>

PHOENIX CONTACT GmbH & Co. KG
Flachsmarktstr. 8
32825 Blomberg
Germany
Tel. +49 5235 300
Fax +49 5235 3 41200
<http://www.phoenixcontact.com>