

PT 2X2-12DC-ST - Surge protection plug



2838254
<https://www.phoenixcontact.com/in/products/2838254>

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 documentation. Our general terms of use for downloads are valid.



PT protective connector with protective circuit for two 2-wire floating signal circuits. 12 V DC nominal voltage. HART-compatible.

Your advantages

- Easy testing and documentation with CHECKMASTER 2 with pluggable protective modules
- Maximum ease of maintenance, thanks to the 2-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

Commercial data

Item number	2838254
Packing unit	10 pc
Minimum order quantity	1 pc
Sales key	CL2
Product key	CL2111
Catalog page	Page 123 (C-4-2019)
GTIN	4017918182663
Weight per piece (including packing)	25.79 g
Weight per piece (excluding packing)	25.79 g
Customs tariff number	85363010
Country of origin	DE

PT 2X2-12DC-ST - Surge protection plug



2838254

<https://www.phoenixcontact.com/in/products/2838254>

Technical data

Product properties

IEC test classification	C1
	C2
	C3
	D1
Type	Male
Product type	Surge protection for MCR technology
Product family	PLUGTRAB PT
Surge protection fault message	none
Arrester can be tested with CHECKMASTER from software version:	From SW rev. 1.00
Wire pairs per module	2

Insulation characteristics

Overvoltage category	III
----------------------	-----

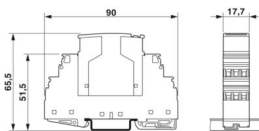
Electrical properties

Nominal voltage U_N	12 V DC
-----------------------	---------

Connection data

Connection method	Screw connection (in connection with the base element)
Screw thread	M3
Tightening torque	0.8 Nm
Conductor cross section flexible	0.2 mm ² ... 2.5 mm ²
Conductor cross section rigid	0.2 mm ² ... 4 mm ²
Conductor cross section AWG	24 ... 12

Dimensions

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

Material specifications

PT 2X2-12DC-ST - Surge protection plug



2838254

<https://www.phoenixcontact.com/in/products/2838254>

Color	black (RAL 9005)
	Copper
Flammability rating according to UL 94	V-0
Housing material	PA 6.6

Mechanical properties

Mechanical data

Open side panel	No
-----------------	----

Protective circuit

Direction of action	Line-Line & Line-Signal Ground/Shield & optional Signal Ground/Shield-Earth Ground
Maximum continuous voltage U_C	13 V DC
	9 V AC
Rated current	450 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 2X2+F-BE)
	$\leq 4 \mu A$
Nominal discharge current I_n (8/20) μs (line-line)	10 kA
Nominal discharge current I_n (8/20) μs (line-ground)	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-line)	10 kA
Max. discharge current I_{max} (8/20) μs maximum (line-earth)	10 kA
Output voltage limitation at 1 kV/ μs (line-line) spike	$\leq 20 V$
Output voltage limitation at 1 kV/ μs (line-earth) spike	$\leq 450 V$
Output voltage limitation at 1 kV/ μs (line-line) static	$\leq 18 V$
Output voltage limitation (10/700) μs (line-earth)	$\leq 450 V$
Output voltage limitation (10/700) μs (line-signalground)	$\leq 18 V$
Residual voltage at I_n (conductor-conductor)	$\leq 18 V$
Residual voltage at I_n (line-signalground)	$\leq 450 V$
Residual voltage with I_{an} (10/1000) μs (line-line)	$\leq 23 V$
Response time t_A (line-line)	$\leq 1 ns$
Response time t_A (line-earth)	$\leq 100 ns$
Input attenuation aE, sym.	0.5 dB ($\leq 600 kHz$)
Cut-off frequency f_g (3 dB), sym. in 50 Ω system	typ. 3 MHz
Capacity (Core-Core)	3 nF
Resistance per path	2.2 Ω
Surge protection fault message	none
Impulse durability (line-line)	C2 - 10 kV / 5 kA
Impulse durability (line-earth)	C2 - 10 kV / 5 kA
	D1 - 2.5 kA

Environmental and real-life conditions

PT 2X2-12DC-ST - Surge protection plug



2838254

<https://www.phoenixcontact.com/in/products/2838254>

Ambient conditions

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

Standards and regulations

Air clearances and creepage distances

Standards/regulations	VDE 0110-1 / IEC 60664-1
-----------------------	--------------------------

Standards Information technology specification

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

Mounting

Mounting type	on base element
---------------	-----------------

PT 2X2-12DC-ST - Surge protection plug

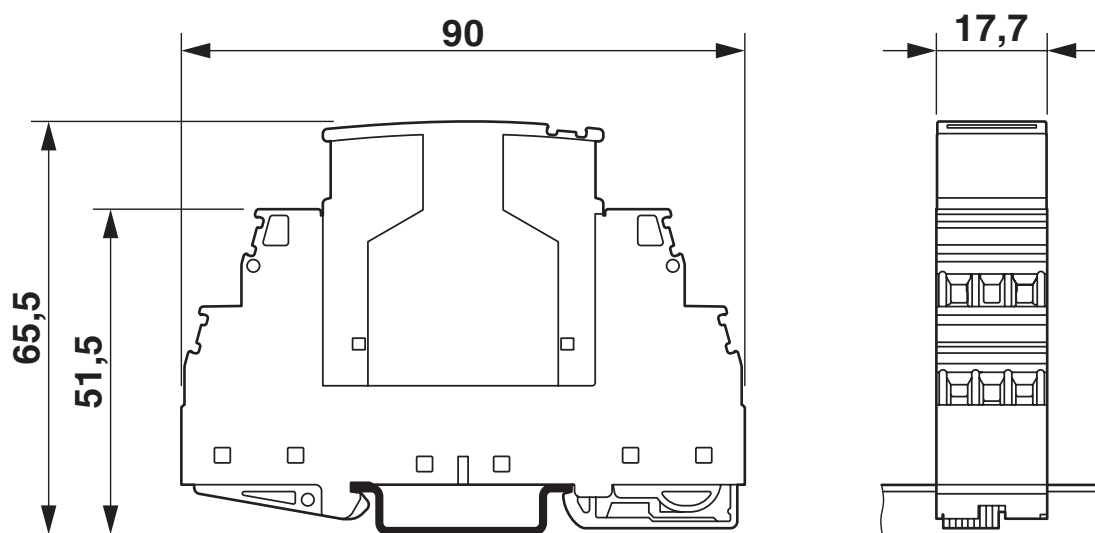
2838254

<https://www.phoenixcontact.com/in/products/2838254>



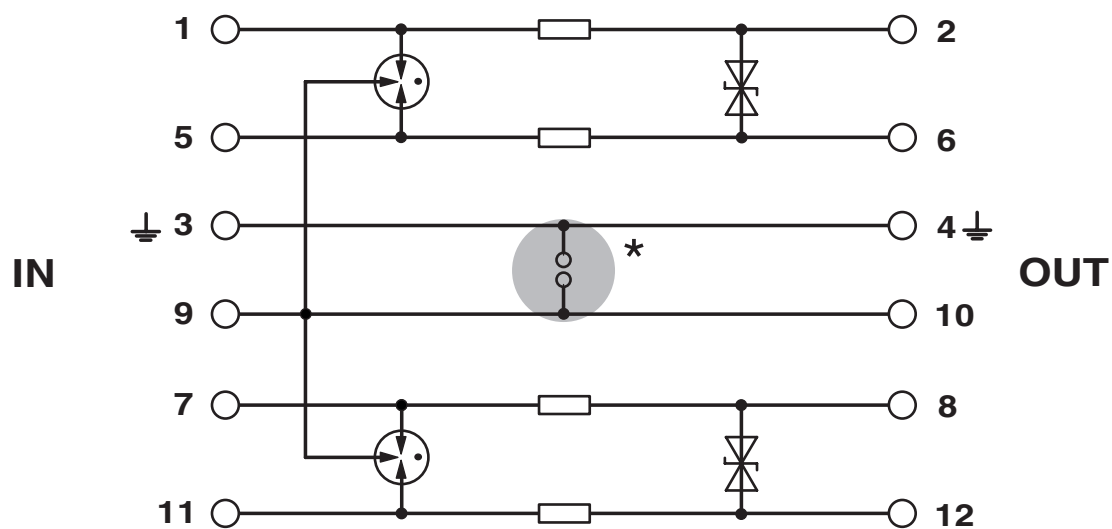
Drawings

Dimensional drawing



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

Circuit diagram



PT 2X2-12DC-ST - Surge protection plug



2838254

<https://www.phoenixcontact.com/in/products/2838254>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/in/products/2838254>



EAC
Approval ID: RU C-DE.*09.B.00169

	UL Listed Approval ID: FILE E 138168			
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	12 V	0.45 A	-	-



cUL Listed
Approval ID: FILE E 333250



UL Listed
Approval ID: FILE E 333250

cULus Listed

PT 2X2-12DC-ST - Surge protection plug



2838254

<https://www.phoenixcontact.com/in/products/2838254>

Classifications

ECLASS

ECLASS-11.0	27130807
ECLASS-13.0	27171501

ETIM

ETIM 9.0	EC001625
----------	----------

UNSPSC

UNSPSC 21.0	39121600
-------------	----------

PT 2X2-12DC-ST - Surge protection plug



2838254
<https://www.phoenixcontact.com/in/products/2838254>

Environmental product compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads"

Phoenix Contact 2024 © - all rights reserved
<https://www.phoenixcontact.com>

PHOENIX CONTACT (I) Pvt. Ltd.
A-58/2, Okhla Industrial Area, Phase - II, New Delhi-110 020

+91.1275.71420
info@phoenixcontact.co.in