Surge protection plug - PT 2X2-HF-24 DC-ST - 2839729

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)

Protective plug PT with HF protective circuit for two 2-core floating signal circuits. Nominal voltage: 24 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 pc
GTIN	4 017918 607210
Weight per Piece (excluding packing)	22.32 g
Custom tariff number	85363010
Country of origin	Germany

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

Surge protection plug - PT 2X2-HF-24 DC-ST - 2839729

Technical data

Ambient conditions

Degree of protection	IP20

General

Housing material	PA
Inflammability class according to UL 94	V0
Color	black
Standards for cearances 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	24 V DC
Maximum continuous voltage U_C	28 V DC
	19.8 V AC
Maximum continuous voltage U_C (wire-wire)	28 V DC
	19.8 V AC
Maximum continuous voltage U_C (wire-ground)	28 V DC (with PT 2x2-BE)
Nominal current I_N	450 mA (45°C)
Operating effective current I_C at U_C	≤ 5 µA
Residual current I_{PE}	≤ 4 µA (with PT 2x2-BE)
	≤ 1 µA (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 Ian (10/1000) µs (Core-Core)	30 A
Impulse discharge current (10/350)#µs, peak value I_{imp}	2.5 kA

Surge protection plug - PT 2X2-HF-24 DC-ST - 2839729

Technical data

Protective circuit

Output voltage limitation at 1 kV/µs (Core-Core) spike	≤ 120 V
Output voltage limitation at 1 kV/µs (Core-Earth) spike	≤ 450 V
	≤ 1 kV (with PT 2x2+F-BE)
Output voltage limitation at 1 kV/µs (Core-Core) static	≤ 45 V
Output voltage limitation at 1 kV/µs (Core-GND) static	≤ 450 V
Residual voltage at I_n (conductor-conductor)	≤ 40 V
Residual voltage with Ian (10/1000)µs (conductor-conductor)	≤ 50 V
Voltage protection level U_p (core-core)	≤ 120 V (C2 - 10 kV / 5 kA)
Voltage protection level U_p (core-ground)	≤ 450 V (C2 - 10 kV / 5 kA)
Response time tA (Core-Core)	≤ 500 ns
Response time tA (Core-Earth)	≤ 500 ns
Input attenuation aE, sym.	0.2 dB (≤ 5 MHz)
Cut-off frequency fg (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 mm²
Conductor cross section flexible max.	2.5 mm²
Conductor cross section solid min.	0.2 mm²
Conductor cross section solid max.	4 mm²
Conductor cross section AWG min.	24
Conductor cross section AWG max.	12

Standards and Regulations

Standards/regulations	IEC 61643-21

Classifications

eCl@ss

eCl@ss 4.0	27140201
eCl@ss 4.1	27130801
eCl@ss 5.0	27130801
eCl@ss 5.1	27130801

Surge protection plug - PT 2X2-HF-24 DC-ST - 2839729

Classifications

eCl@ss

eCl@ss 6.0	27130807
eCl@ss 7.0	27130807
eCl@ss 8.0	27130807

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	24 V

EAC

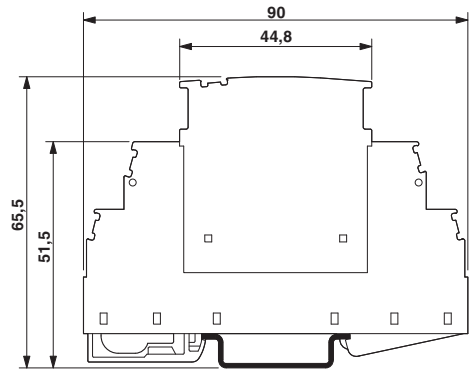
Surge protection plug - PT 2X2-HF-24 DC-ST - 2839729

Approvals

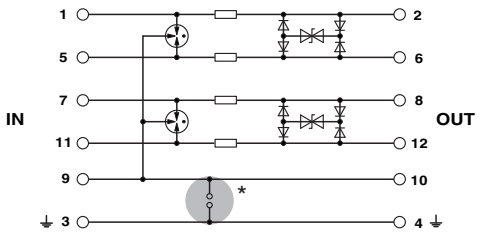
EAC

Drawings

Dimensional drawing



Circuit diagram



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

Diagram