Surge protection connector - PT 1X2-24AC-ST - 2856058

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://download.phoenixcontact.com)

The figure shows the PT 1x2-48DC-ST version

PT protective connector with protective circuit for a 2-wire floating signal circuit. HART-compatible.

Product Features

- Plugs can be checked with CHECKMASTER
- Installed in conjunction with the PT 1x2…-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 a floating signal circuit
- Impedance-neutral disconnection of plug for test and maintenance purposes

Key commercial data

package_quantity	10
GTIN	4017918599188

Technical data

Dimensions

Height	45 mm
Width	17.7 mm
Depth	52 mm
Pitch unit	1 Div.
Height	90 mm
Width	17.7 mm
Depth	65.5 mm

Ambient conditions

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

General

Housing material	PA 6.6

Surge protection connector - PT 1X2-24AC-ST - 2856058

Technical data

General

Inflammability class according to UL 94	V0
Color	black
Standards for air and creepage distances	VDE 0110-1
Standards for air and creepage distances	IEC 60664-1
Mounting type	On base element
Design	DIN rail module, two-section, divisible
Number of positions	2
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
IEC test classification	C2
IEC test classification	C3
IEC test classification	D1
VDE requirement class	C1
VDE requirement class	C2
VDE requirement class	C3
VDE requirement class	D1
Nominal voltage U_N	24 V AC
Maximum continuous operating voltage U_C	40 V DC
Maximum continuous operating voltage U_C	28 V AC
Maximum continuous voltage UC (wire-wire)	28 V AC
Maximum continuous voltage U_C (wire-ground)	40 V DC
Nominal current I_N	450 mA (45°C)
Operating effective current I_C at U_C	≤ 5 µA
Residual current I_{PE}	≤ 2 µA (Directly grounded)
Residual current I_{PE}	≤ 1 µA (BE: 1x2+F)
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)	23 A
Impulse discharge current (10/350) µs, peak value I_{imp}	2.5 kA
Output voltage limitation at 1 kV/µs (Core-Core) spike	≤ 55 V
Output voltage limitation at 1 kV/µs (Core-Earth) spike	≤ 450 V
Output voltage limitation at 1 kV/µs (Core-Earth) spike	≤ 1 kV (BE: 1x2+F)
Output voltage limitation at 1 kV/µs (Core-Core) static	≤ 55 V
Residual voltage at I_n, (conductor-conductor)	≤ 55 V

Surge protection connector - PT 1X2-24AC-ST - 2856058

Technical data

Protective circuit

Residual voltage with Ian (10/1000)µs (conductor-conductor)	≤ 65 V
Voltage protection level U_P (Core-Core)	≤ 80 V
Voltage protection level U_P (Core-Earth)	≤ 450 V
Response time tA (Core-Core)	≤ 1 ns
Response time tA (Core-Earth)	≤ 100 ns
Input attenuation aE, sym.	0.5 dB (≤ 1.5 MHz)
Cut-off frequency fg (3 dB), sym. in 50 Ohm system	typ. 8 MHz
Capacity (Core-Core)	1.1 nF
Resistance in series	2.2 Ω #10% (1-2/5-6/7-8/11-12)
Max. required back-up fuse	500 mA
Surge carrying capacity in acc. with IEC 61643-21 (Core-Core)	C2 (10 kV/5 kA)
Surge carrying capacity in acc. with IEC 61643-21 (Core-Earth)	C2 (10 kV/5 kA)
Surge carrying capacity in acc. with IEC 61643-21 (Core-Earth)	D1 (2.5 kA)

Standards and Regulations

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

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

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

Surge protection connector - PT 1X2-24AC-ST - 2856058

approvals

UL Listed / cUL Listed / ATEX / cULus Listed / UL Listed / GOST /

Approval details

UL Listed

cUL Listed

ATEX

Nominal voltage UN	
Nominal current IN	
mm²/AWG/kcmil	

cULus Listed

Nominal voltage UN	34 V
Nominal current IN	0.45 A
mm²/AWG/kcmil	

GOST

accessories

Marker pen

Surge protection connector - PT 1X2-24AC-ST - 2856058

accessories

X-PEN 0,35 - 0811228

Terminal marking

ZBF 5:UNBEDRUCKT - 0808642

ZBF 5/WH-100:UNBEDRUCKT - 0808668

Labeled terminal marker

ZBF 5,LGS:FORTL.ZAHLEN - 0808671

ZBF 5,LGS:GERADE ZAHLEN - 0810821

Surge protection connector - PT 1X2-24AC-ST - 2856058

accessories

ZBF 5,LGS:UNGERADE ZAHLEN - 0810863

ZBF 5,QR:FORTL.ZAHLEN - 0808697

Device marking

ZBN 18:UNBEDRUCKT - 2809128

accessories

ZBF 15:SO/CMS - 0814717

ZBF 5:SO/CMS - 0808707

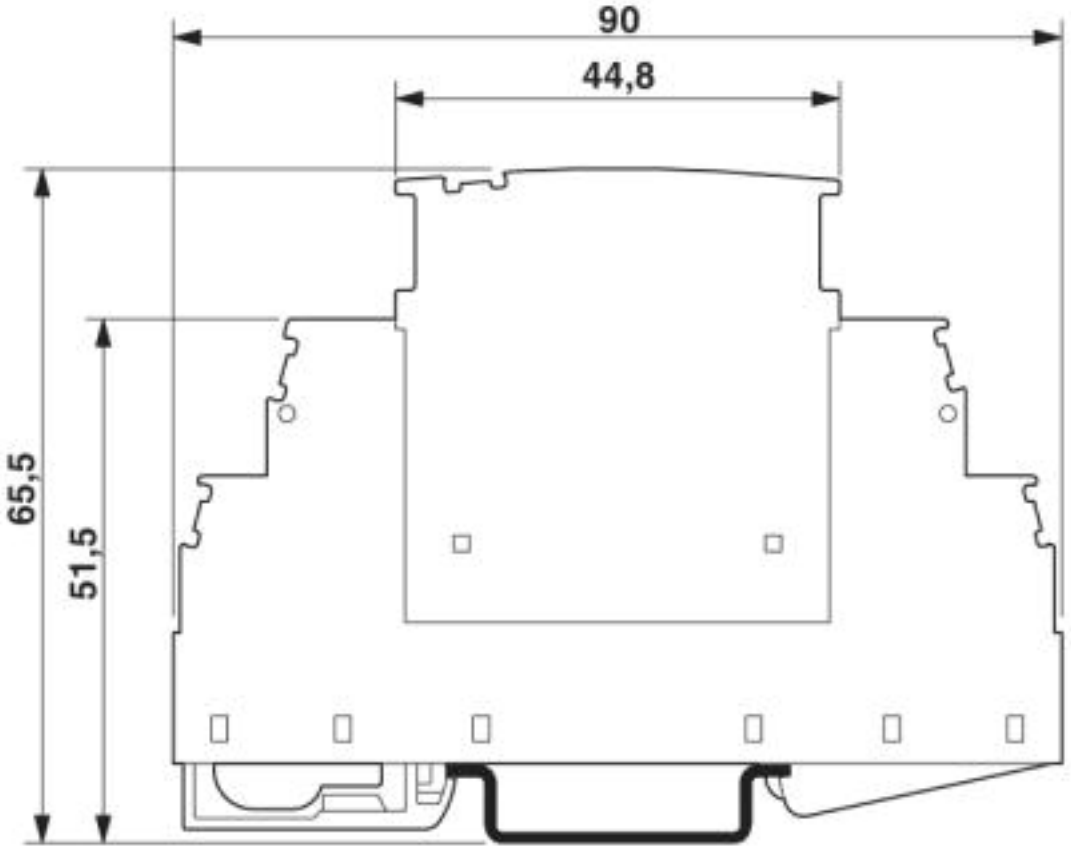
Surge protection connector - PT 1X2-24AC-ST - 2856058

accessories

ZBN 18:SO/CMS - 0800763

Drawings

Dimensioned drawing



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

Surge protection connector - PT 1X2-24AC-ST - 2856058

Circuit diagram