

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>)



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


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

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

Packing unit	1 PCE
GTIN	 4 017918 599188
Custom tariff number	85363010
Country of origin	GERMANY

Technical data

Dimensions

Height	45 mm
Width	17.7 mm
Depth	52 mm

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

Technical data

Dimensions

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
Inflammability class according to UL 94	V0
Color	black
Standards for air and creepage distances	VDE 0110-1
	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
	C2
	C3
	D1
VDE requirement class	C1
	C2
	C3
	D1
Nominal voltage U_N	24 V AC
Maximum continuous operating voltage U_C	40 V DC
	28 V AC
Maximum continuous voltage U_C (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	$\leq 5 \mu A$
Residual current I_{PE}	$\leq 2 \mu A$ (Directly grounded)

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

Technical data

Protective circuit

	$\leq 1 \mu\text{A}$ (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 I_{an} (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	$\leq 55 \text{ V}$
Output voltage limitation at 1 kV/ μs (Core-Earth) spike	$\leq 450 \text{ V}$
	$\leq 1 \text{ kV}$ (BE: 1x2+F)
Output voltage limitation at 1 kV/ μs (Core-Core) static	$\leq 55 \text{ V}$
Residual voltage at I_n , (conductor-conductor)	$\leq 55 \text{ V}$
Residual voltage with I_{an} (10/1000) μs (conductor-conductor)	$\leq 65 \text{ V}$
Voltage protection level U_p (Core-Core)	$\leq 80 \text{ V}$
Voltage protection level U_p (Core-Earth)	$\leq 450 \text{ V}$
Response time t_A (Core-Core)	$\leq 1 \text{ ns}$
Response time t_A (Core-Earth)	$\leq 100 \text{ ns}$
Input attenuation a_E , sym.	0.5 dB ($\leq 1.5 \text{ MHz}$)
Cut-off frequency f_g (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)
	D1 (2.5 kA)

Standards and Regulations

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

Classifications

ETIM

ETIM 2.0	EC000943
ETIM 3.0	EC000943

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

Classifications

ETIM

ETIM 4.0	EC000943
ETIM 5.0	EC000943

UNSPSC

UNSPSC 11	39121610
UNSPSC 12.01	39121610
UNSPSC 13.2	39121620
UNSPSC 6.01	30212010
UNSPSC 7.0901	39121610

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

Approvals

Approvals

Approvals

UL Listed / GOST

Ex Approvals


UL Listed / cUL Listed / ATEX / cULus Listed


Approvals submitted

Approval details

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

Approvals

UL Listed 	
Nominal current I _N	0.45 A
Nominal voltage U _N	34 V

GOST 
--

Accessories

Accessories

Marking

Marker pen - X-PEN 0,35 - 0811228



Marker pen without ink cartridge, for manual labeling of markers, labeling extremely wipe-proof, line thickness 0.35 mm

Zack Marker strip, flat - ZBF 5:UNBEDRUCKT - 0808642



Zack Marker strip, flat, Strip, white, Unlabeled, Can be labeled with: Plotter, Mounting type: Snap into flat marker groove, For terminal block width: 5 mm, Lettering field: 5.1 x 5.2 mm

Zack Marker strip, flat - ZBF 5/WH-100:UNBEDRUCKT - 0808668



Zack Marker strip, flat, Strip, white, Unlabeled, Can be labeled with: Plotter, Mounting type: Snap into flat marker groove, For terminal block width: 5 mm, Lettering field: 5.15 x 5.15 mm

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

Accessories

Zack Marker strip, flat - ZBF 5,LGS:FORTL.ZAHLEN - 0808671



Zack Marker strip, flat, Strip, white, labeled, Printed horizontally: Consecutive numbers 1 - 10, 11 - 20, etc. up to 491 - 500, Mounting type: Snap into flat marker groove, For terminal block width: 5 mm, Lettering field: 5.15 x 5.15 mm

Zack Marker strip, flat - ZBF 5,LGS:GERADE ZAHLEN - 0810821



Zack Marker strip, flat, Strip, white, labeled, Printed horizontally: Consecutive numbers 2 - 20, 22 - 40, etc. up to 82 - 100, Mounting type: Snap into flat marker groove, For terminal block width: 5 mm, Lettering field: 5.15 x 5.15 mm

Zack Marker strip, flat - ZBF 5,LGS:UNGERADE ZAHLEN - 0810863



Zack Marker strip, flat, Strip, white, labeled, Printed horizontally: Odd numbers 1 - 19, 21 - 39, etc. up to 81 - 99, Mounting type: Snap into flat marker groove, For terminal block width: 5 mm, Lettering field: 5.15 x 5.15 mm

Zack Marker strip, flat - ZBF 5,QR:FORTL.ZAHLEN - 0808697



Zack Marker strip, flat, Strip, white, labeled, Printed vertically: Consecutive numbers 1 - 10, 11 - 20, etc. up to 91 - 100, Mounting type: Snap into flat marker groove, For terminal block width: 5 mm, Lettering field: 5.15 x 5.15 mm

Zack marker strip - ZBN 18:UNBEDRUCKT - 2809128



Zack marker strip, Strip, white, Unlabeled, Can be labeled with: Plotter, Mounting type: Snap into tall marker groove, For terminal block width: 18 mm, Lettering field: 18 x 5 mm

Required add-on products

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

Accessories

Surge protection base element - PT 1X2-BE - 2856113



Base element for protective plug PT with protective circuit for a 2-core floating signal circuit. Mounting on NS 35/7.5 und NS 35/15, housing width: 17.5 mm.

Surge protection base element - PT 1X2+F-BE - 2856126



Base element for protective plug PT with protective circuit for a 2-core floating signal circuit. Integrated gas arrester as coarse protection between GND and PE. Mounting on NS 35/7.5 und NS 35/15, housing width: 17.5 mm.

Additional products

Shield connection - SSA 3-6 - 2839295



shield fast connections for conductor diameter 3 - 6 mm. Potential connection cable: 200 mm, black

Shield connection - SSA 5-10 - 2839512

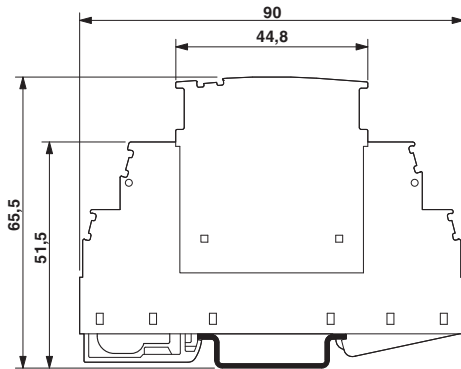


Shield fast connection for conductor diameters 5 - 10 mm. Potential connection cable: 200 mm, black

Drawings

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

Dimensioned drawing



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

Circuit diagram

