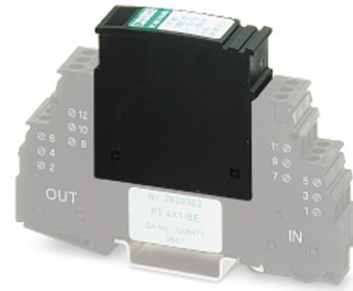# PT 4X1-24DC-ST

Order No.: 2838322

The illustration shows version PT 4x1- 5 DC-ST

Protective plug PT with protective circuit for 4 conductors of signal circuits grounded on one side. Nominal voltage: 24 V DC

Product notes

WEEE/RoHS-compliant since: 05/10/2006

Commercial data

EAN	4017918182717
Pack	10 pcs.
Customs tariff	85363010
Weight/Piece	0.02585 KG
Catalog page information	Page 69 (TT-2007)

Technical data

General

Housing material	PA 6.6
Inflammability class acc. to UL 94	V0
Color	black
Standards for air and creepage distances	VDE 0110-1
	IEC 60664-1: 1992-10

Total surge current (8/20) µs	20 kA
Ambient temperature (operation)	-40 °C ... 85 °C
Mounting type	On base element
Design	DIN rail module, two-section, divisible
Degree of protection	IP20
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
Width	17.70 mm
Height	52.00 mm
Length	45.00 mm
Pitch unit	1 Div.

Protective circuit

IEC category	C1
	C2
	C3
	D1
VDE requirement class	C1
	C2
	C3
	D1
Nominal voltage U_N	24 V DC
Arrester rated voltage U_C	28 V DC
	20 V AC
Arrester rated voltage U_C (Core-Earth)	28 V DC
	20 V AC
Nominal current I_N	300 mA (45°C)
Operating effective current I_C at U_C	$\leq$ 5 µA
Discharge current to PE at U_C	$\leq$ 1 µA (BE: 4x1+F)
	$\leq$ 20 µA (Directly grounded)
Nominal discharge surge current I_n (8/20) µs (Core-Earth)	10 kA
Total surge current (8/20) µs	20 kA
Max. discharge surge current Imax (8/20) µs maximum (Core-Earth)	10 kA

Nominal pulse current Ian (10/1000) µs (Core-Earth)	30 A
Lightning test current (10/350) µs, peak value I_{imp}	2.5 kA (per path)
Output voltage limitation at 1 kV/µs (Core-Earth) spike	≤ 45 V
Output voltage limitation at 1 kV/µs (Core-Earth) static	≤ 40 V
Residual voltage at In, (conductor-ground)	≤ 40 V
Protection level U_P (Core-Earth)	≤ 80 V (C2 (10 kV/5 kA))
Response time tA (Core-Earth)	≤ 1 ns
Input attenuation aE, asym.	0.5 dB (≤ 1 MHz)
Cut-off frequency fg (3 dB), asym. (PE) in 50 Ohm system	Typ. 6 MHz
Capacity (Core-Earth)	1.4 nF
Resistance in series	4.7 Ω (Path 1-2/5-6)
	4.7 Ω (Path 7-8, 11-12)
Surge carrying capacity in acc. with IEC 61643-21 (Core-Earth)	C2 (10 kV/5 kA)
	D1 (2.5 kA)

Connection data

Type of connection	Screw connection (in connection with the base element)
Connection type IN	PLUGTRAB plug-in system
Connection type OUT	PLUGTRAB plug-in system
Screw thread	M3
Tightening torque, min	0.8 Nm
Stripping length	8 mm
Conductor cross section stranded min.	0.2 mm²
Conductor cross section stranded max.	2.5 mm²
Conductor cross section solid min.	0.2 mm²
Conductor cross section solid max.	4 mm²
Conductor cross section AWG/kcmil min.	24
Conductor cross section AWG/kcmil max	12

Connection, protective circuit

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

Certificates / Approvals

Certification	GOST, UL Listed
Certification Ex:	CUL-EX LIS, UL-EX LIS

Accessories

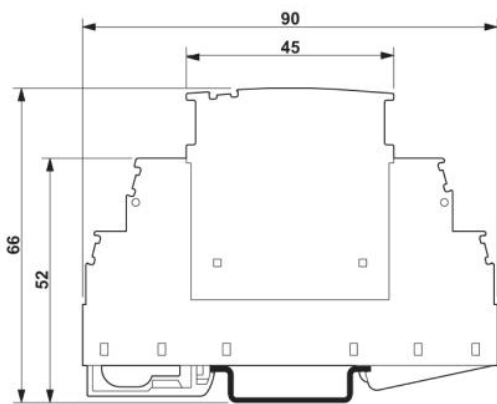| Item	Designation	Description
Marking		
0811228	X-PEN 0,35	Marker pen without ink cartridge, for manual labeling of markers, labeling extremely wipe-proof, line thickness 0.35 mm
0811228	X-PEN 0,35	Marker pen without ink cartridge, for manual labeling of markers, labeling extremely wipe-proof, line thickness 0.35 mm
0811228	X-PEN 0,35	Marker pen without ink cartridge, for manual labeling of markers, labeling extremely wipe-proof, line thickness 0.35 mm
0814717	ZBF 15:SO/CMS	Zack strip, flat, 10-section, divisible, special printing, marking according to customer requirements
0808671	ZBF 5,LGS:FORTL.ZAHLEN	Zack strip, flat, printed horizontally: 10-section, with the numbers, 1-10, 11-20 etc. up to 991-1000, color: White
0810821	ZBF 5,LGS:GERADE ZAHLEN	Zack marker strip, flat, printed horizontally: 10-section, with even numbers, printed with the numbers: 2-20, 22-40, etc. up to 82-100
0810863	ZBF 5,LGS:UNGERADE ZAHLEN	Zack strip, flat, printed horizontally: 10-section, with odd numbers, printed with the numbers: 1-19, 21-39 etc. up to 81-99
0808697	ZBF 5,QR:FORTL.ZAHLEN	Flat Zack marker strip, printed vertically: 10-section, with the numbers 1-10, 11-20, etc. up to 151-160, color: White
0808668	ZBF 5/WH-100:UNBEDRUCKT	Zack strip, flat, unprinted: 10-section, for individual labeling with M-PEN or ZBF-T, large batch, sufficient for labeling 1000 terminal blocks, color: white
0808707	ZBF 5:SO/CMS	Zack strip, flat, 10-section, divisible, special printing, marking according to customer requirements
0808642	ZBF 5:UNBEDRUCKT	Zack strip, flat, unprinted: 10-section, for individual labeling with M-PEN or ZBF-T, sufficient for 100 terminal blocks, color: white
0800763	ZBN 18:SO/CMS	Marker labels, 5-section, special printing, labeled according to customer requirements (Please specify the required marking with order), for terminal width: 17.5 mm, color: White
2809128	ZBN 18:UNBEDRUCKT	Unprinted marker labels, strips with 5 labels for individual labeling with M-PEN or CMS system, for terminal block width: 17.5 mm, color: White

Additional products

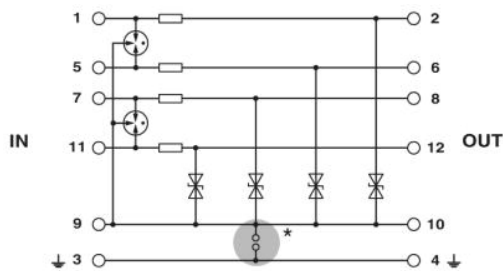| Item	Designation	Description
Assembly		
2839295	SSA 3-6	shield fast connections for conductor diameter 3 - 6 mm. Potential connection cable: 200 mm, black
2839512	SSA 5-10	Shield fast connection for conductor diameters 5 - 10 mm. Potential connection cable: 200 mm, black
General		
2839376	PT 4X1+F-BE	Base element for protective plug PT with protective circuit for 4 signal wires, with gas-filled surge arrester between the connections 3-4 (GND) and 9-10, for mounting on NS 35/7.5 and NS 35/15, housing width: 17.5 mm
2839363	PT 4X1-BE	Base element for protective plug PT with protective circuit for 4 conductors of signal circuits grounded on one side, with bridge between the connections 3-4 (GND) and 9-10, for mounting on NS 35/7.5 and NS 35/15, housing width: 17.5 mm

Drawings

Dimensioned drawing

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

Circuit diagram

Approval logo (Ex area)