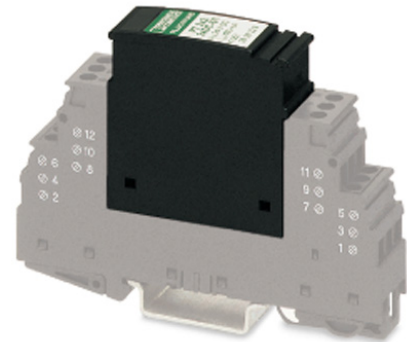


# PT 2X2-12DC-ST

Order No.: 2838254

The illustration shows version PT 2x2- 5DC-ST



Protective plug PT with protective circuit for two 2-core floating signal circuits. Nominal voltage: 12 V DC



Commercial data	
EAN	4017918182663
Pack	10 pcs.
Customs tariff	85363010
Weight/Piece	0.02493 KG
Catalog page information	Page 68 (TT-2007)

### Product notes

WEEE/RoHS-compliant since:  
06/23/2006



## 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) $\mu$ s	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.
<b>Protective circuit</b>	
IEC category	C1
	C2
	C3
	D1
VDE requirement class	C1
	C2
	C3
	D1
Nominal voltage $U_N$	12 V DC
Max. operating voltage $U_{max}$	13 V DC
Arrester rated voltage $U_C$	13 V DC
	9 V AC
Arrester rated voltage $U_C$ (Core-Earth)	13 V DC
	9 V AC
Nominal current $I_N$	450 mA (45°C)
Operating effective current $I_C$ at $U_C$	$\leq 5 \mu$ A
Discharge current to PE at $U_C$	$\leq 1 \mu$ A (BE: 2x2+F)
	$\leq 4 \mu$ A
Nominal discharge surge current $I_n$ (8/20) $\mu$ s (Core-Core)	10 kA

Nominal discharge surge current $I_n$ (8/20) $\mu\text{s}$ (Core-Earth)	10 kA
Total surge current (8/20) $\mu\text{s}$	20 kA
Max. discharge surge current $I_{\text{max}}$ (8/20) $\mu\text{s}$ maximum (Core-Core)	10 kA
Max. discharge surge current $I_{\text{max}}$ (8/20) $\mu\text{s}$ maximum (Core-Earth)	10 kA
Lightning test current (10/350) $\mu\text{s}$ , peak value $I_{\text{imp}}$	2.5 kA (per path)
Output voltage limitation at 1 kV/ $\mu\text{s}$ (Core-Core) spike	$\leq 20$ V
Output voltage limitation at 1 kV/ $\mu\text{s}$ (Core-Earth) spike	$\leq 450$ V
Output voltage limitation at 1 kV/ $\mu\text{s}$ (Core-Core) static	$\leq 18$ V
Output voltage limitation at 1 kV/ $\mu\text{s}$ (Core-Earth) static	$\leq 450$ V
Output voltage limitation (10/700) $\mu\text{s}$ (Core-Earth)	$\leq 450$ V
Output voltage limitation (10/700) $\mu\text{s}$ (Core-GND)	$\leq 18$ V
Residual voltage at $I_n$ , (conductor-conductor)	$\leq 18$ V
Residual voltage at $I_n$ , (conductor-GND)	$\leq 450$ V
Residual voltage with $I_{\text{an}}$ (10/1000) $\mu\text{s}$ (conductor- conductor)	$\leq 23$ V
Response time $t_A$ (Core-Core)	$\leq 1$ ns
Response time $t_A$ (Core-Earth)	$\leq 100$ ns
Input attenuation aE, sym.	0.5 dB ( $\leq 600$ kHz)
Cut-off frequency $f_g$ (3 dB), sym. in 50 Ohm system	Typ. 3 MHz
Capacity (Core-Core)	3 nF
Resistance in series	2.2 $\Omega$ (Path 1-2/5-6) 2.2 $\Omega$ (Path 7-8, 11-12)
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)
<b>Connection data</b>	
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 mm <sup>2</sup>
Conductor cross section stranded max.	2.5 mm <sup>2</sup>
Conductor cross section solid min.	0.2 mm <sup>2</sup>
Conductor cross section solid max.	4 mm <sup>2</sup>
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**

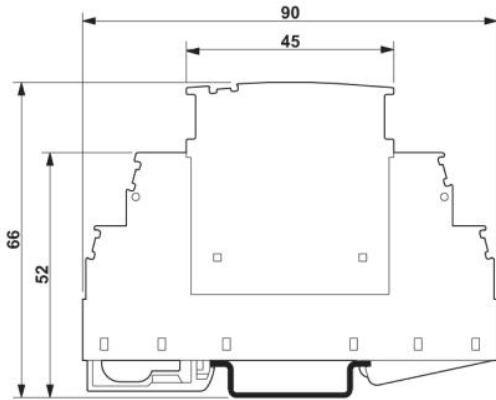
Certification	GOST, UL Listed
Certification Ex:	CUL-EX LIS, UL-EX LIS

**Accessories**

Item	Designation	Description
<b>Marking</b>		
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

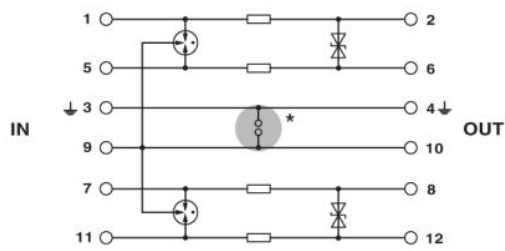
## Drawings

### Dimensioned drawing



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

### Circuit diagram



Approval logo (Ex area)

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