

# PT 4-12DC-ST

Order No.: 2839237

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



Protective plug PT with protective circuit for a 4-core floating signal circuit. Nominal voltage: 12 V DC



Commercial data	
EAN	4017918182779
Pack	10 pcs.
Customs tariff	85363010
Weight/Piece	0.02496 KG
Catalog page information	Page 90 (TT-2009)

### Product notes

WEEE/RoHS-compliant since:  
06/19/2006



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## 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.

#### Protective circuit

IEC category	C1
	C2
	C3
	D1
VDE requirement class	C1
	C2
	C3
	D1
Nominal voltage $U_N$	12 V DC
Max. operating voltage $U_{max}$	12.8 V DC
Arrester rated voltage $U_C$	12.8 V DC
	9 V AC
Arrester rated voltage $U_C$ (Core-Core)	12.8 V DC
	9 V AC
Nominal current $I_N$	2 A (80 °C)
Operating effective current $I_C$ at $U_C$	$\leq 1$ mA
Discharge current to PE at $U_C$	$\leq 4$ $\mu$ A (Directly grounded)
	$\leq 1$ $\mu$ A (BE: 4+F)
Nominal discharge surge current $I_n$ (8/20) $\mu$ s (Core-Core)	690 A
Nominal discharge surge current $I_n$ (8/20) $\mu$ s (Core-Earth)	10 kA

Total surge current (8/20) $\mu$ s	20 kA
Max. discharge surge current $I_{max}$ (8/20) $\mu$ s maximum (Core-Core)	690 A
Max. discharge surge current $I_{max}$ (8/20) $\mu$ s maximum (Core-Earth)	10 kA
Nominal pulse current $I_{an}$ (10/1000) $\mu$ s (Core-Core)	128 A
Lightning test current (10/350) $\mu$ s, peak value $I_{imp}$	2.5 kA (per path)
Output voltage limitation at 1 kV/ $\mu$ s (Core-Core) spike	$\leq 20$ V
Output voltage limitation at 1 kV/ $\mu$ s (Core-Earth) spike	$\leq 450$ V
	$\leq 1$ kV (BE: 4+F)
Output voltage limitation at 1 kV/ $\mu$ s (Core-Core) static	$\leq 18$ V
Output voltage limitation at 1 kV/ $\mu$ s (Core-Earth) static	$\leq 450$ V
Residual voltage at $I_n$ , (conductor-conductor)	$\leq 50$ V
Residual voltage with $I_{an}$ (10/1000) $\mu$ s (conductor-conductor)	$\leq 25$ V
Protection level $U_p$ (Core-Core)	$\leq 40$ V (C1 (1 kV/500 A))
Protection level $U_p$ (Core-Earth)	$\leq 450$ V
	$\leq 1$ kV (BE: 4+F)
Response time $t_A$ (Core-Core)	$\leq 1$ ns
Response time $t_A$ (Core-Earth)	$\leq 1$ ns
	$\leq 100$ ns
Input attenuation aE, sym.	0.1 dB ( $\leq 600$ kHz)
Cut-off frequency $f_g$ (3 dB), sym. in 50 Ohm system	Typ. 3 MHz
Surge carrying capacity in acc. with IEC 61643-21 (Core-Core)	C1 (1 kV / 500 A)
	C3 (100 A)
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	0.5 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

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

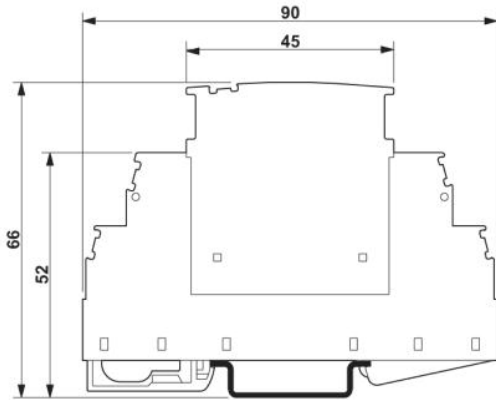
#### Additional products

Item	Designation	Description
<b>Assembly</b>		
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
<b>General</b>		
2839402	PT 4-BE	Base element for protective plug PT with protective circuit for a 4-wire floating signal circuit, 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

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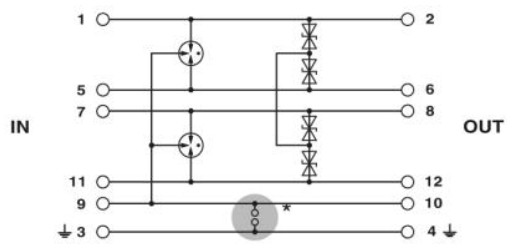
## Drawings

### Dimensioned drawing



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

### Circuit diagram



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**Address**

PHOENIX CONTACT Inc., USA  
586 Fulling Mill Road  
Middletown, PA 17057, USA  
Phone (800) 888-7388  
Fax (717) 944-1625  
<http://www.phoenixcon.com>



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