


**PT 5-HF-12 DC-ST**

Order No.: 2838775

<http://eshop.phoenixcontact.de/phoenix/treeViewClick.do?UID=2838775>Protective plug PT with HF protective circuit for 4 signal wires. Nominal  
voltage: 12 V DC

Commercial data	
GTIN (EAN)	 4 017918 480646
sales group	J431
Pack	10 pcs.
Customs tariff	85363010
Catalog page information	Page 100 (TT-2011)

## Product notes

WEEE/RoHS-compliant since:  
05/01/2006

[http://  
www.download.phoenixcontact.com](http://www.download.phoenixcontact.com)  
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**Technical data****General**

Housing material	PA
Inflammability class acc. to UL 94	V0
Color	black

Standards for air and creepage distances	DIN VDE 0110-1
	IEC 60664-1: 1992-10
Surge voltage category	III
Pollution degree	2
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
Number of positions	5
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
Maximum continuous operating voltage $U_C$	14 V DC
	9.8 V AC
Maximum continuous voltage $U_C$ (wire-wire)	14 V DC
	9.8 V AC
Maximum continuous voltage $U_C$ (wire-ground)	14 V DC (with PT 2x2-BE)
Nominal current $I_N$	450 mA (45°C)
Operating effective current $I_C$ at $U_C$	$\leq 5 \mu$ A

Ground conductor current $I_{PE}$	$\leq 5 \mu\text{A}$ (with PT 2x2-BE)
	$\leq 1 \mu\text{A}$ (with PT 2x2+F-BE)
Nominal discharge surge current $I_n$ (8/20) $\mu\text{s}$ (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 $I_{max}$ (8/20) $\mu\text{s}$ maximum (Core-Core)	10 kA
Max. discharge surge current $I_{max}$ (8/20) $\mu\text{s}$ maximum (Core-Earth)	10 kA
Nominal pulse current $I_{an}$ (10/1000) $\mu\text{s}$ (Core- Core)	67 A
Lightning test current (10/350) $\mu\text{s}$ , peak value $I_{imp}$	2.5 kA
Output voltage limitation at 1 kV/ $\mu\text{s}$ (Core-Core) spike	$\leq 25 \text{ V}$
Output voltage limitation at 1 kV/ $\mu\text{s}$ (Core-Earth) spike	$\leq 25 \text{ V}$
	$\leq 700 \text{ V}$ (with PT 2x2+F-BE)
Output voltage limitation at 1 kV/ $\mu\text{s}$ (Core-Core) static	$\leq 25 \text{ V}$
Output voltage limitation at 1 kV/ $\mu\text{s}$ (Core-Earth) static	$\leq 25 \text{ V}$
Output voltage limitation at 1 kV/ $\mu\text{s}$ (Core-GND) static	$\leq 40 \text{ V}$ (with PT 2x2+F-BE)
Residual voltage at $I_n$ , (conductor-conductor)	$\leq 25 \text{ V}$
Residual voltage at $I_n$ , (conductor-ground)	$\leq 40 \text{ V}$
Residual voltage at $I_n$ , (conductor-GND)	$\leq 25 \text{ V}$ (with PT 2x2-BE)
Residual voltage with $I_{an}$ (10/1000) $\mu\text{s}$ (conductor- conductor)	$\leq 25 \text{ V}$
Residual voltage with $I_{an}$ (10/1000) $\mu\text{s}$ (conductor- GND)	$\leq 25 \text{ V}$
Protection level $U_p$ (Core-Core)	$\leq 100 \text{ V}$ (C2 (10 kV/5 kA))
Protection level $U_p$ (Core-Earth)	$\leq 100 \text{ V}$ (C2 (10 kV/5 kA) mit BE 2839208)
	$\leq 600 \text{ V}$ (C2 (10 kV/5 kA) mit BE 2839224)
Response time $t_A$ (Core-Core)	$\leq 500 \text{ ns}$
Response time $t_A$ (Core-Earth)	$\leq 500 \text{ ns}$
Input attenuation aE, sym.	0.2 dB ( $\leq 5 \text{ MHz}$ )
Cut-off frequency $f_g$ (3 dB), sym. in 100 Ohm system	Typ. 70 MHz

Capacity (Core-Core)	Typ. 30 pF
Resistance in series	2.2 Ω
Max. required back-up fuse	500 mA (e.g. T in acc. with IEC 127-2/III)

**Connection data**

Connection type IN	PLUGTRAB plug-in system
Connection type OUT	PLUGTRAB plug-in system

**Connection, protective circuit**

Standards/regulations	IEC 61643-21
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**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
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 marker strip, flat, printed horizontally: 10-section, with the numbers 1 - 10, 11 - 20, and so on up to 491 - 500, 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	Zack marker strip, flat, printed vertically: 10-section, with the numbers 1 - 10, 11 - 20, and so on up to 91 - 100, 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

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

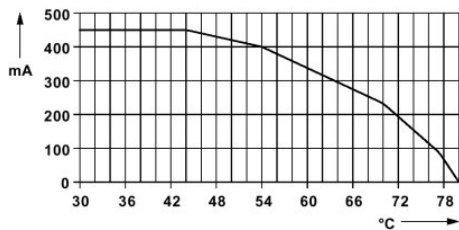
**Additional products**

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

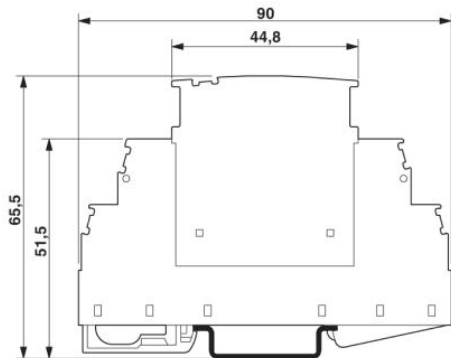
<b>General</b>		
2839208	PT 2X2-BE	Base element for protective plug PT with protective circuit for two 2-wire floating signal circuit, bridge between the connections 3-4 (GND) and 9-10, for mounting on NS 35/7.5 and NS 35/15, housing width: 17.5 mm

**Diagrams/Drawings**

Diagram

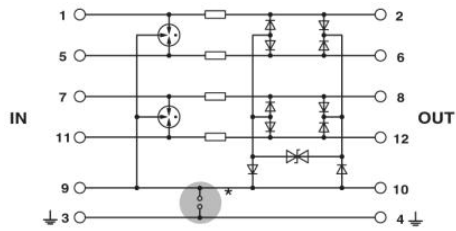


Dimensioned drawing



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

Circuit diagram



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