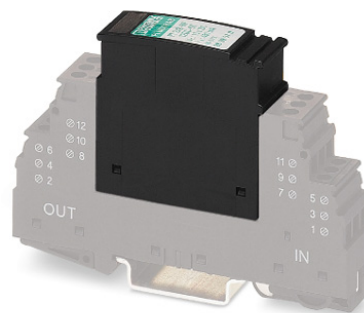


# PT 2X2-HF- 5 DC-ST

Order No.: 2839567


The illustration shows the version PT 2x2-HF-12 DC-ST



<http://eshop.phoenixcontact.de/phoenix/treeViewClick.do?UID=2839567>

Protective plug PT with HF protective circuit for two 2-core floating signal circuits. Nominal voltage: 5 V DC



Commercial data	
GTIN (EAN)	 4 017918 591106
sales group	J431
Pack	10 pcs.
Customs tariff	85363010
Catalog page information	Page 101 (TT-2011)

### Product notes

WEEE/RoHS-compliant since:  
05/29/2006



<http://www.download.phoenixcontact.com>  
Please note that the data given here has been taken from the online catalog. For comprehensive information and data, please refer to the user documentation. The General Terms and Conditions of Use apply to Internet downloads.

## 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
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.
<b>Protective circuit</b>	
IEC category	C1
	C2
	C3
	D1
VDE requirement class	C1
	C2
	C3
	D1
Nominal voltage $U_N$	5 V DC
Maximum continuous operating voltage $U_C$	5.2 V DC
	3.6 V AC
Maximum continuous voltage $U_C$ (wire-wire)	5.2 V DC
	3.6 V AC
Maximum continuous voltage $U_C$ (wire-ground)	5.2 V DC (with PT 2x2-BE)
Nominal current $I_N$	450 mA (45°C)
Operating effective current $I_C$ at $U_C$	$\leq 2000 \mu$ A
Ground conductor current $I_{PE}$	$\leq 4 \mu$ A (with PT 2x2-BE)
	$\leq 1 \mu$ 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 $I_{\text{max}}$ (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
Nominal pulse current $I_{\text{an}}$ (10/1000) $\mu\text{s}$ (Core- Core)	90 A
Lightning test current (10/350) $\mu\text{s}$ , peak value $I_{\text{imp}}$	2.5 kA
Output voltage limitation at 1 kV/ $\mu\text{s}$ (Core-Core) spike	$\leq 45$ V
Output voltage limitation at 1 kV/ $\mu\text{s}$ (Core-Earth) spike	$\leq 450$ V
	$\leq 1$ kV (with PT 2x2+F-BE)
Output voltage limitation at 1 kV/ $\mu\text{s}$ (Core-Core) static	$\leq 15$ V
Output voltage limitation at 1 kV/ $\mu\text{s}$ (Core-Earth) static	$\leq 450$ V
Residual voltage at $I_n$ , (conductor-conductor)	$\leq 12$ V
Residual voltage with $I_{\text{an}}$ (10/1000) $\mu\text{s}$ (conductor- conductor)	$\leq 12$ V
Protection level $U_p$ (Core-Core)	$\leq 100$ V (C2 (10 kV/5 kA))
Protection level $U_p$ (Core-Earth)	$\leq 450$ V (C2 (10 kV/5 kA))
Response time $t_A$ (Core-Core)	$\leq 500$ ns
Response time $t_A$ (Core-Earth)	$\leq 500$ ns
Input attenuation aE, sym.	0.2 dB ( $\leq 5$ 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 $\Omega$
Max. required back-up fuse	500 mA (e.g. T in acc. with IEC 127-2/III)
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)

#### Connection data

Connection method	Screw connection (in connection with the base element)
Connection type IN	PLUGTRAB plug-in system
Connection type OUT	PLUGTRAB plug-in system
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
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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

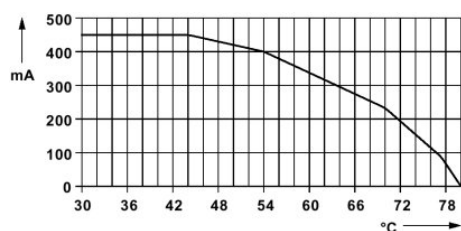
**Additional products**

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

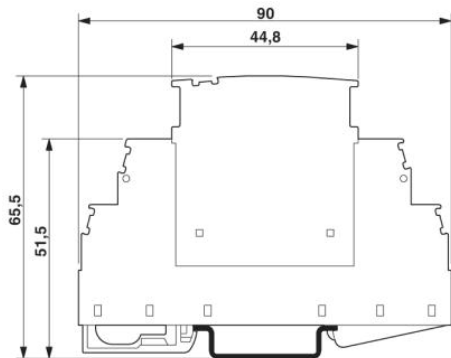
<b>General</b>		
2839224	PT 2X2+F-BE	Base element for protective plug PT with protective circuit for two 2-wire floating signal circuit, gas-filled surge arrester between the connections 3-4 (GND) and 9-10, for mounting on NS 35/7.5 and NS 35/15, housing width: 17.5 mm

**Diagrams/Drawings**

Diagram

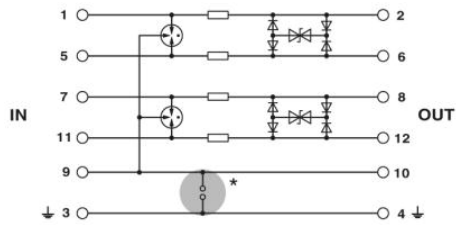


Dimensioned drawing



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

Circuit diagram



**Address**

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