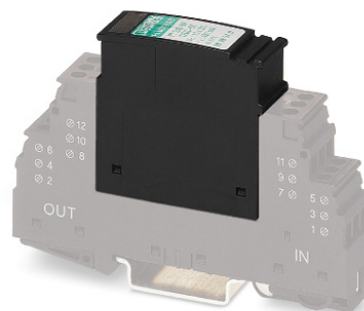


## PT 2X2-HF- 5 DC-ST

Order No.: 2839567

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



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



| Commercial data          |                   |
|--------------------------|-------------------|
| EAN                      | 4017918591106     |
| Pack                     | 10 pcs.           |
| Customs tariff           | 85363010          |
| Weight/Piece             | 0.02637 KG        |
| Catalog page information | Page 77 (TT-2007) |

### Product notes

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



<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/<br>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   |
| Max. operating voltage $U_{max}$                               | 5.2 V DC   |
| Arrester rated voltage $U_c$                                   | 5.2 V DC   |
|  | 3.6 V AC   |
| Arrester rated voltage $U_c$ (Core-Core)                       | 5.2 V DC   |
|  | 3.6 V AC   |
| Arrester rated voltage $U_c$ (Core-Earth)                      | 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  |
| Discharge current to PE at $U_c$                               | $\leq 4 \mu$ 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 $a_E$ , 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**

|  |  |
|--|--|
| 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                                |
| 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 61643-1 |
|-----------------------|-------------|

**Certificates / Approvals**

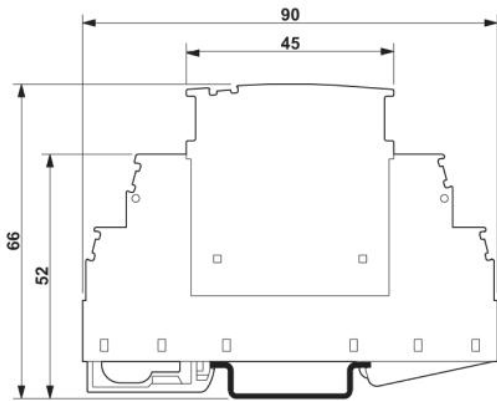
Certification GOST, UL Listed

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

**Accessories**

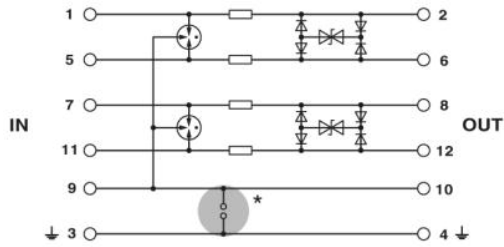
| Item           | Designation             | Description  |
|----------------|-------------------------|--|
| <b>Marking</b> |                         |  |
| 0811228        | X-PEN 0,35              | Marker pen without ink cartridge, for manual labeling of markers, labeling extremely wipe-proof, line 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 |

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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