

## Surge protection connector - PT 2-TELE-ST - 2838733

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Surge protection plug for base element, for protecting a double conductor of analog telecommunication interfaces.



### Key commercial data

|                  |               |
|------------------|---------------|
| package_quantity | 10            |
| GTIN             | 4046356044677 |

### Technical data

#### Dimensions

|            |         |
|------------|---------|
| Height     | 45 mm   |
| Width      | 17.7 mm |
| Depth      | 52 mm   |
| Pitch unit | 1 Div.  |
| Height     | 90 mm   |
| Width      | 17.7 mm |
| Depth      | 65.5 mm |

#### Ambient conditions

|                                 |                  |
|---------------------------------|------------------|
| Ambient temperature (operation) | -40 °C ... 85 °C |
| Degree of protection            | IP20             |

#### General

|                                          |                                         |
|------------------------------------------|-----------------------------------------|
| Housing material                         | PA                                      |
| Inflammability class according to UL 94  | V0                                      |
| Color                                    | black                                   |
| Standards for air and creepage distances | VDE 0110-1                              |
| Standards for air and creepage distances | IEC 60644-1                             |
| Mounting type                            | On base element                         |
| Design                                   | DIN rail module, two-section, divisible |
| Number of positions                      | 2                                       |
| Direction of action                      | Line-Line & Line-Earth Ground           |

#### Protective circuit

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## Technical data

### Protective circuit

|                                                                      |                                    |
|----------------------------------------------------------------------|------------------------------------|
| IEC test classification                                              | C1                                 |
| IEC test classification                                              | C2                                 |
| IEC test classification                                              | C3                                 |
| IEC test classification                                              | D1                                 |
| IEC test classification                                              | B2                                 |
| VDE requirement class                                                | C1                                 |
| VDE requirement class                                                | C2                                 |
| VDE requirement class                                                | C3                                 |
| VDE requirement class                                                | D1                                 |
| VDE requirement class                                                | B2                                 |
| Maximum continuous voltage $U_C$ (wire-wire)                         | 185 V DC                           |
| Maximum continuous voltage $U_C$ (wire-wire)                         | 130 V AC                           |
| Maximum continuous voltage $U_C$ (wire-ground)                       | 185 V DC                           |
| Maximum continuous voltage $U_C$ (wire-ground)                       | 130 V AC                           |
| Nominal current $I_N$                                                | 450 mA (45°C)                      |
| Operating effective current $I_C$ at $U_C$                           | $\leq 10 \mu A$                    |
| Residual current $I_{PE}$                                            | $\leq 10 \mu A$                    |
| Nominal discharge current $I_n$ (8/20) $\mu s$ (Core-Core)           | 10 kA                              |
| Nominal discharge current $I_n$ (8/20) $\mu s$ (Core-Earth)          | 10 kA                              |
| Total surge current (8/20) $\mu s$                                   | 20 kA                              |
| Max. discharge current $I_{max}$ (8/20) $\mu s$ maximum (Core-Earth) | 18 kA                              |
| Nominal pulse current $I_{an}$ (10/700) $\mu s$ (Core-Core)          | 100 A                              |
| Nominal pulse current $I_{an}$ (10/700) $\mu s$ (Core-Earth)         | 100 A                              |
| Impulse discharge current (10/350) $\mu s$ , peak value $I_{imp}$    | 1 kA                               |
| Output voltage limitation at 1 kV/ $\mu s$ (Core-Core) spike         | $\leq 300 V$                       |
| Output voltage limitation at 1 kV/ $\mu s$ (Core-Earth) spike        | $\leq 300 V$                       |
| Output voltage limitation at 1 kV/ $\mu s$ (Core-Core) static        | $\leq 300 V$                       |
| Output voltage limitation at 1 kV/ $\mu s$ (Core-Earth) static       | $\leq 300 V$                       |
| Residual voltage at $I_n$ , (conductor-conductor)                    | $\leq 160 V$ (C2 - 10 kV / 5 kA)   |
| Residual voltage at $I_n$ , (conductor-ground)                       | $\leq 200 V$ (C2 - 10 kV / 5 kA)   |
| Voltage protection level $U_P$ (Core-Core)                           | $\leq 330 V$ (C2 - 10 kV / 5 kA)   |
| Voltage protection level $U_P$ (Core-Core)                           | $\leq 300 V$ (C2 - 2 kV/1 kA)      |
| Voltage protection level $U_P$ (Core-Core)                           | $\leq 270 V$ (C1 - 1 kV/500 A)     |
| Voltage protection level $U_P$ (Core-Core)                           | $\leq 300 V$ (B2 - 4 kV/100 A)     |
| Response time $t_A$ (Core-Core)                                      | $\leq 500 ns$                      |
| Response time $t_A$ (Core-Earth)                                     | $\leq 500 ns$                      |
| Input attenuation $a_E$ , sym.                                       | typ. 0.4 dB ( $\leq 5 MHz$ )       |
| Cut-off frequency $f_g$ (3 dB), sym. in 100 Ohm system               | typ. 20 MHz                        |
| Capacity (Core-Core)                                                 | typ. 30 pF ( $f=1 MHz / V_R=0 V$ ) |
| Capacity (Core-Earth)                                                | typ. 30 pF ( $f=1 MHz / V_R=0 V$ ) |

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## Technical data

### Protective circuit

|                                                                |                         |
|----------------------------------------------------------------|-------------------------|
| Resistance in series                                           | 2.2 $\Omega$ $\pm$ 10 % |
| Surge carrying capacity in acc. with IEC 61643-21 (Core-Core)  | B2 (4 kV / 100 A)       |
| Surge carrying capacity in acc. with IEC 61643-21 (Core-Core)  | C1 (1 kV / 500 A)       |
| 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-Core)  | C3 (2 kV/25 A)          |
| Surge carrying capacity in acc. with IEC 61643-21 (Core-Core)  | D1 (1 kA)               |
| Surge carrying capacity in acc. with IEC 61643-21 (Core-Earth) | B2 (4 kV / 100 A)       |
| Surge carrying capacity in acc. with IEC 61643-21 (Core-Earth) | C1 (1 kV / 500 A)       |
| Surge carrying capacity in acc. with IEC 61643-21 (Core-Earth) | C2 (10 kV/5 kA)         |
| Surge carrying capacity in acc. with IEC 61643-21 (Core-Earth) | C3 (2 kV/25 A)          |
| Surge carrying capacity in acc. with IEC 61643-21 (Core-Earth) | D1 (1 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                                |

### Standards and Regulations

|                       |              |
|-----------------------|--------------|
| Standards/regulations | IEC 61643-21 |
|-----------------------|--------------|

## classifications

### eCl@ss

|            |          |
|------------|----------|
| eCl@ss 4.0 | 27140201 |
| eCl@ss 4.1 | 27130801 |
| eCl@ss 5.0 | 27130801 |
| eCl@ss 5.1 | 27130801 |
| eCl@ss 6.0 | 27130807 |
| eCl@ss 7.0 | 27130807 |
| eCl@ss 8.0 | 27130807 |

### ETIM

|          |          |
|----------|----------|
| ETIM 2.0 | EC000943 |
| ETIM 3.0 | EC000943 |
| ETIM 4.0 | EC000943 |
| ETIM 5.0 | EC000943 |

### UNSPSC

|               |          |
|---------------|----------|
| UNSPSC 6.01   | 30212010 |
| UNSPSC 7.0901 | 39121610 |
| UNSPSC 11     | 39121610 |
| UNSPSC 12.01  | 39121610 |
| UNSPSC 13.2   | 39121620 |

## Surge protection connector - PT 2-TELE-ST - 2838733

### approvals

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GOST /

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#### Approval details



### accessories

#### Marker pen

X-PEN 0,35 - 0811228



#### Terminal marking

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ZBF 5:UNBEDRUCKT - 0808642



ZBF 5/WH-100:UNBEDRUCKT - 0808668



#### Labeled terminal marker

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### accessories

ZBF 5,LGS:FORTL.ZAHLEN - 0808671



ZBF 5,LGS:GERADE ZAHLEN - 0810821



ZBF 5,LGS:UNGERADE ZAHLEN - 0810863



ZBF 5,QR:FORTL.ZAHLEN - 0808697



### Device marking

ZBN 18:UNBEDRUCKT - 2809128



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### accessories

ZBF 15:SO/CMS - 0814717



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ZBF 5:SO/CMS - 0808707



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ZBN 18:SO/CMS - 0800763

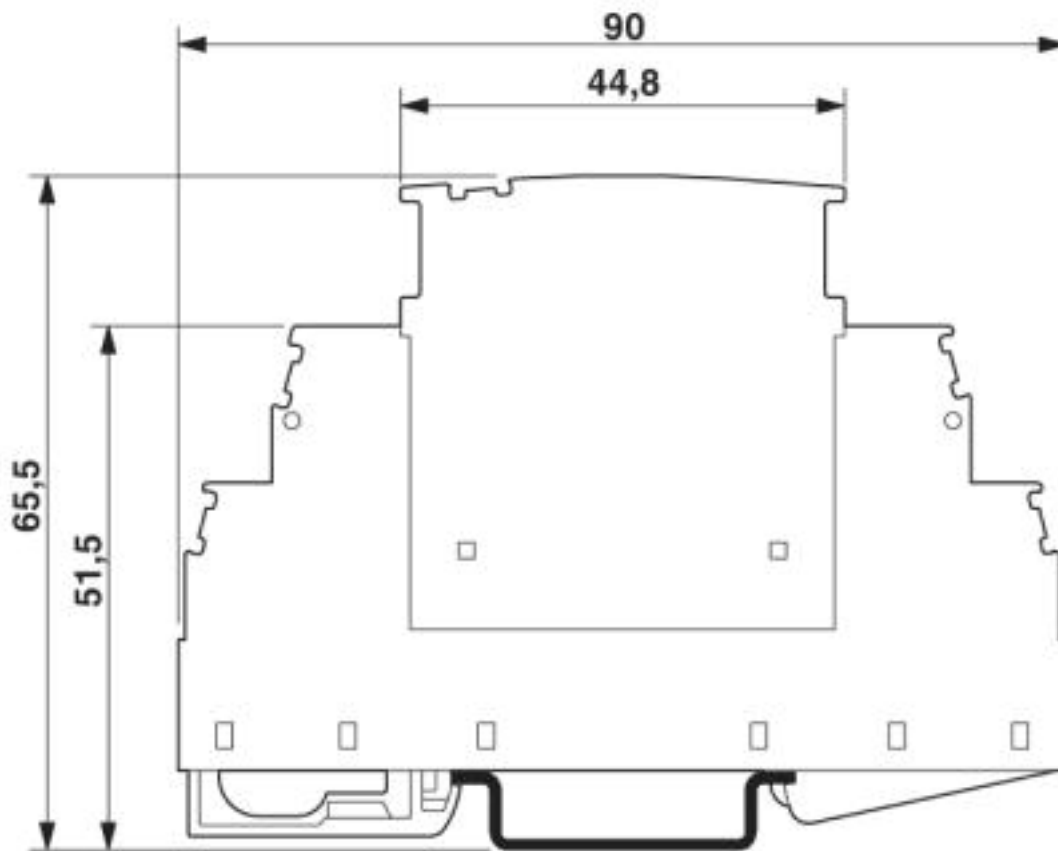


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### Drawings

## Surge protection connector - PT 2-TELE-ST - 2838733

Dimensioned drawing



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

Circuit diagram

