

Surge protection device - TTC-6P-2X1-M-EX-24DC-UT-I - 2906825

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Surge protection, consisting of protective plug and base element, with integrated status indicator and disconnect knife for a 2-wire Ex i signal circuit with common reference potential, e.g., Digital IN/OUT.

Your advantages

- ✓ Space-saving installation due to the narrow overall width of 6.2 mm
- ✓ Signaling without additional auxiliary power, thanks to the mechanical status indicator
- ✓ Optional remote signaling module monitors up to 40 items, without additional wiring
- ✓ The signal is not influenced during maintenance work, thanks to the impedance-neutral insertion and removal of protective plugs
- ✓ Error-free replacement of protective plugs, thanks to coding
- ✓ Signal circuits easily interrupted for maintenance work, thanks to vertical knife disconnection
- ✓ Safe behavior in the event of overload, thanks to the integrated disconnect device
- ✓ Worldwide use in potentially explosive areas, thanks to ATEX and IECEx approvals
- ✓ Simple testing and documentation with CHECKMASTER 2, thanks to pluggable protective modules



Key Commercial Data

| | |
|--------------------------------------|---|
| Packing unit | 1 pc |
| GTIN |  4 055626 135878 |
| GTIN | 4055626135878 |
| Weight per Piece (excluding packing) | 62.600 g |
| Custom tariff number | 85363010 |
| Country of origin | Germany |

Technical data

Dimensions

| | |
|--------|--------------------------------|
| Height | 105.8 mm |
| Width | 6.2 mm +0.1 mm |
| Depth | 100 mm (incl. DIN rail 7.5 mm) |

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Technical data

Ambient conditions

| | |
|---|--|
| Ambient temperature (operation) | -40 °C ... 85 °C |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C |
| Altitude | ≤ 2000 m (amsl (above mean sea level)) |
| Degree of protection | IP20 |

General

| | |
|--|--|
| Housing material | PBT |
| Flammability rating according to UL 94 | V-0 |
| Color | sky blue RAL 5015 |
| Mounting type | DIN rail: TH 35 - 7.5 mm |
| Type | DIN rail module, two-section, divisible |
| Direction of action | Line-Line & Line-Signal Ground/Shield & optional Signal Ground/Shield-Earth Ground |

Protective circuit

| | |
|---|---------------------------------------|
| IEC test classification | C1 |
| | C2 |
| | C3 |
| | D1 |
| Nominal voltage U_N | 24 V DC |
| Maximum continuous voltage U_C | 30 V DC |
| Rated current | 600 mA (40 °C) |
| Operating effective current I_C at U_C | ≤ 5 μ A |
| Residual current I_{PE} | ≤ 10 μ A |
| Nominal discharge current I_n (8/20) μ s (line-earth) | 5 kA |
| Pulse discharge current I_{imp} (10/350) μ s (line-earth) | 0.5 kA |
| Total discharge current I_{total} (8/20) μ s | 10 kA |
| Voltage protection level U_p (line-earth) | ≤ 140 V (C1 - 1 kV/500 A) |
| | ≤ 190 V (C2 - 10 kV / 5 kA) |
| | ≤ 50 V (C3 - 100 A) |
| Voltage protection level U_p static (line-earth) | ≤ 55 V (C1 - 1 kV/500 A) |
| | ≤ 120 V (C2 - 10 kV / 5 kA) |
| Response time t_A (line-earth) | ≤ 1 ns |
| Input attenuation aE, asym. | typ. 0.3 dB (≤ 270 kHz/150 Ω) |
| Cut-off frequency f_g (3 dB), asym. (PE) in 150 Ohm system | typ. 960 kHz |
| Capacity (line-earth) | typ. 2.2 nF |
| Resistance per path | 1.65 Ω ±20 % |
| Surge protection fault message | optical |
| Max. required back-up fuse | 630 mA (FF) |
| Impulse durability (line-earth) | C1 - 1 kV / 500 A |
| | C2 - 10 kV / 5 kA |
| | C3 - 100 A |

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Technical data

Protective circuit

| | |
|-------------------------------|------------|
| | D1 - 500 A |
| Pulse reset time (line-earth) | ≤ 300 ms |

Connection data

| | |
|----------------------------------|---|
| Connection method | Screw connection |
| Screw thread | M3 |
| Tightening torque | 0.5 Nm ... 0.6 Nm |
| Stripping length | 8 mm |
| Conductor cross section flexible | 0.2 mm ² ... 2.5 mm ² |
| Conductor cross section solid | 0.2 mm ² ... 4 mm ² |
| Conductor cross section AWG | 24 ... 12 |

Standards and Regulations

| | |
|--------------------------|--|
| Standards/specifications | EN 60079-0 2012 + A11:2013 |
| | EN 60079-11 2012 |
| | EN 61643-21 2001 + A1:2009 + A2:2013 |
| | IEC 60079-0 2011 (modified) + corrigendum 2012 + corrigendum 2013 |
| | IEC 60079-11 2008 |
| | IEC 61643-21 2000 + corrigendum 2001 + A1:2008, modified + A2:2012 |

General

| | |
|---------------------------------|--------------------------------|
| Maximum inner capacitance C_i | negligible |
| Max. internal inductance L_i | negligible |
| Max. input current I_i | 400 mA (T4 / ≤ 50 °C) |
| | 350 mA (T6 / ≤ 35 °C) |
| Max. input voltage U_i | 30 V DC |
| Ambient temperature (operation) | -40 °C ... 35 °C (T6 / 85 °C) |
| | -40 °C ... 50 °C (T4 / 135 °C) |

Conformity / approvals

| | |
|----------------|--|
| UL, USA/Canada | Class I, Div. 2, Groups A, B, C, D T4A |
|----------------|--|

Environmental Product Compliance

| | |
|------------|---|
| | Lead 7439-92-1 |
| China RoHS | Environmentally Friendly Use Period = 50 |
| | For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration" |