

Surge protection device - PT-IQ-2X2+F-24DC-UT - 2800981

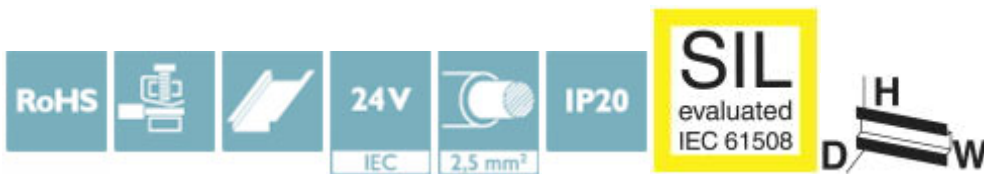
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Surge protection, consisting of protective plug and base element, with integrated multi-stage status indicator on the module for two 2-wire floating signal circuits. Indirect grounding via gas discharge tube, HART-compatible.

Your advantages

- ✓ Surge protection system
- ✓ Multi-level state monitoring
- ✓ Collective message about supply and remote module
- ✓ System supplied via DIN rail bus
- ✓ Up to 28 protection modules per supply module
- ✓ Maximum ease of maintenance thanks to the two-piece design
- ✓ Codable plug
- ✓ Impedance-neutral disconnection of plug for maintenance purposes
- ✓ Base element remains an integral part of the installation



Key Commercial Data

| | |
|--------------|---|
| Packing unit | 1 pc |
| GTIN |  4 046356 665810 |
| GTIN | 4046356665810 |

Technical data

Dimensions

| | |
|------------------|---------------------------------|
| Height | 91 mm |
| Width | 17.7 mm |
| Depth | 77.5 mm (incl. DIN rail 7.5 mm) |
| Horizontal pitch | 1 Div. |

Ambient conditions

| | |
|---------------------------------|------------------|
| Ambient temperature (operation) | -40 °C ... 70 °C |
|---------------------------------|------------------|

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Ambient conditions

| | |
|---|--|
| Ambient temperature (storage/transport) | -40 °C ... 85 °C |
| Altitude | ≤ 4000 m (amsl (above mean sea level)) |
| Degree of protection | IP20 |

General

| | |
|--|--|
| Housing material | PA 6.6 |
| Flammability rating according to UL 94 | V-0 |
| Color | jet black RAL 9005 |
| Mounting type | DIN rail: 35 mm |
| Type | DIN rail module, two-section, divisible |
| Direction of action | Line-Line & Line-Signal Ground/Shield & optional Signal Ground/Shield-Earth Ground |

Additional descriptions

| | |
|------|---|
| Note | Remote signaling as well as the power supply of the DIN rail connector are established by snapping the module into place on the DIN rail connector. |
|------|---|

Protective circuit

| | |
|--|--------------------------------|
| IEC test classification | C1 |
| | C2 |
| | C3 |
| | D1 |
| Nominal voltage U_N | 24 V DC |
| Maximum continuous voltage U_C | 30 V DC |
| | 21 V AC |
| Rated current | 700 mA (50 °C) |
| Operating effective current I_C at U_C | ≤ 1 mA (in the signal circuit) |
| Residual current I_{PE} | ≤ 1 μA |
| Nominal discharge current I_n (8/20) μs (line-line) | 10 kA |
| Nominal discharge current I_n (8/20) μs (line-earth) | 10 kA |
| Pulse discharge current I_{imp} (10/350) μs (line-earth) | 2.5 kA |
| Total discharge current I_{total} (8/20) μs | 20 kA |
| Voltage protection level U_p (line-line) | ≤ 80 V (C1 - 1 kV/500 A) |
| | ≤ 130 V (C2 - 10 kV / 5 kA) |
| | ≤ 150 V (C2 - 10 kA) |
| | ≤ 55 V (C3 - 25 A) |
| | ≤ 60 V (C3 - 100 A) |
| Voltage protection level U_p (line-earth) | ≤ 900 V (C1 - 1 kV/500 A) |
| | ≤ 1300 V (C2 - 10 kV / 5 kA) |
| | ≤ 1200 V (C2 - 10 kA) |
| | ≤ 1000 V (C3 - 25 A) |
| | ≤ 1300 V (C3 - 100 A) |

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Protective circuit

| | |
|--|---|
| Voltage protection level U_p (line-signalground) | ≤ 600 V (C1 - 1 kV/500 A) |
| | ≤ 750 V (C2 - 10 kV / 5 kA) |
| | ≤ 800 V (C2 - 10 kA) |
| | ≤ 700 V (C3 - 25 A) |
| | ≤ 800 V (C3 - 100 A) |
| Voltage protection level U_p static (line-line) | ≤ 65 V (C1 - 1 kV/500 A) |
| | ≤ 65 V (C2 - 10 kA) |
| Response time t_A (line-line) | ≤ 1 ns |
| Response time t_A (line-signalground) | ≤ 100 ns |
| Response time t_A (line-earth) | ≤ 100 ns |
| Input attenuation aE, sym. | typ. 0.3 dB (≤ 270 kHz/150 Ω) |
| Cut-off frequency f_g (3 dB), sym. in 150 Ohm system | typ. 1.1 MHz |
| Capacity (line-earth) | typ. 2 nF |
| Resistance in series | 1.2 $\Omega \pm 5\%$ |
| Surge protection fault message | Optical, multi-stage |
| Max. required back-up fuse | 800 mA (FF) |
| Impulse durability (line-line) | C1 - 1 kV / 500 A |
| | C2 - 10 kV / 5 kA |
| | C2 - 10 kA |
| | C3 - 100 A |
| Impulse durability (line-earth) | C1 - 1 kV / 500 A |
| | C2 - 10 kV / 5 kA |
| | C2 - 10 kA |
| | C3 - 100 A |
| | D1 - 2.5 kA |
| Impulse durability (line-signalground) | C1 - 1 kV/500 A |
| | C2 - 10 kV/5 kA |
| | C2 - 10 kA |
| | C3 - 100 A |
| | D1 - 2,5 kA |
| Pulse reset time (line-line) | ≤ 4000 ms |
| Pulse reset time (line-earth) | ≤ 30 ms |
| Pulse reset time (line-signalground) | ≤ 2600 ms |

Connection data

| | |
|----------------------------------|---|
| Connection method | Screw connection |
| Screw thread | M3 |
| Tightening torque | 0.5 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 |

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Connection data

| | |
|-----------------------------|-----------|
| Conductor cross section AWG | 24 ... 12 |
|-----------------------------|-----------|

Connection, equipotential bonding

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|-------------------|---------------|
| Connection method | DIN rail NS35 |
|-------------------|---------------|

Standards and Regulations

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|--------------------------|---------------------------------------|
| Standards/specifications | IEC 61643-21 2000 + A1:2008, modified |
| | EN 61643-21 2001 + A1:2009 |
| | EN 61000-6-3 2007 + A1:2011 |
| | EN 61000-6-2 2005 |

Environmental Product Compliance

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

Approvals

Approvals


Approvals

CSA / UL Listed / CSAus / EAC / cCSAus

Ex Approvals

Approval details

| | | | |
|-----|---|---|---------|
| CSA |  | http://www.csagroup.org/services-industries/product-listing/ | 2761632 |
|-----|---|---|---------|


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|-----------|---|---|---------------|
| UL Listed |  | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 138168 |
|-----------|---|---|---------------|

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|-------|---|---|---------|
| CSAus |  | http://www.csagroup.org/services-industries/product-listing/ | 2761632 |
|-------|---|---|---------|

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| | | |
|-----|---|-------------------------|
| EAC |  | RU C- DE.A*30.B01561 |
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| cCSAus |  | |
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