

Surge protection connector - PT 4-24DC-ST - 2839240

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Protective plug PT with protective circuit for a 4-core floating signal circuit. Nominal voltage: 24 V DC

The illustration shows the version PT 4-5 DC-ST

Product Features

- ✓ Plugs can be checked with CHECKMASTER
- ✓ Maximum ease of maintenance thanks to the two-piece design
- ✓ Base element remains an integral part of the installation
- ✓ Consistent plug-in signal circuit protection
- ✓ Impedance-neutral disconnection of plug for test and maintenance purposes



Key commercial data

| | |
|--------------------------------------|----------|
| Packing unit | 1 1 |
| Weight per Piece (excluding packing) | 25.6 GRM |
| Custom tariff number | 85363010 |
| Country of origin | Germany |

Technical data

Dimensions

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

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Technical data

Dimensions

| | |
|-------|---------|
| Depth | 65.5 mm |
|-------|---------|

Ambient conditions

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

General

| | |
|--|--|
| Housing material | PA 6.6 |
| Inflammability class according to UL 94 | V0 |
| Color | black |
| Standards for air and creepage distances | VDE 0110-1 |
| | IEC 60664-1 |
| Mounting type | On base element |
| Design | DIN rail module, two-section, divisible |
| 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 |

Protective circuit

| | |
|---|----------------------------|
| IEC test classification | C1 |
| | C2 |
| | C3 |
| | D1 |
| VDE requirement class | C1 |
| | C2 |
| | C3 |
| | D1 |
| Nominal voltage U_N | 24 V DC |
| Maximum continuous operating voltage U_C | 27 V DC |
| | 19 V AC |
| Maximum continuous voltage U_C (wire-wire) | 27 V DC |
| | 19 V AC |
| Nominal current I_N | 2 A (80 °C) |
| Operating effective current I_C at U_C | $\leq 5 \mu A$ |
| Residual current I_{PE} | $\leq 4 \mu A$ (PT 4-BE) |
| | $\leq 1 \mu A$ (PT 4+F-BE) |
| Nominal discharge current I_n (8/20) μs (Core-Core) | 365 A |
| Nominal discharge current I_n (8/20) μs (Core-Earth) | 10 kA |
| Total surge current (8/20) μs | 20 kA |

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Technical data

Protective circuit

| | |
|---|---|
| Max. discharge current I_{\max} (8/20) μ s maximum (Core-Core) | 365 A |
| Max. discharge current I_{\max} (8/20) μ s maximum (Core-Earth) | 10 kA |
| Nominal pulse current I_{an} (10/1000) μ s (Core-Core) | 67 A |
| Impulse discharge current (10/350) μ s, peak value I_{imp} | 2.5 kA (per path) |
| Output voltage limitation at 1 kV/ μ s (Core-Core) spike | ≤ 40 V |
| Output voltage limitation at 1 kV/ μ s (Core-Earth) spike | ≤ 450 V (PT 4-BE) |
| | ≤ 1 kV (PT 4+F-BE) |
| Output voltage limitation at 1 kV/ μ s (Core-Core) static | ≤ 40 V |
| Residual voltage at I_{n} (conductor-conductor) | ≤ 60 V |
| Residual voltage with I_{an} (10/1000) μ s (conductor-conductor) | ≤ 45 V |
| Voltage protection level U_p (Core-Core) | ≤ 50 V (C1 (500 V/250 A)) |
| Voltage protection level U_p (Core-Earth) | ≤ 450 V (C2 (10 kV/5 kA) / PT 4-BE) |
| | ≤ 1 kV (C2 (10 kV/5 kA) / PT 4+F-BE) |
| Response time t_A (Core-Core) | ≤ 1 ns |
| Response time t_A (Core-Earth) | ≤ 1 ns |
| | ≤ 100 ns |
| Input attenuation a_E , sym. | 0.1 dB (≤ 1 MHz) |
| Cut-off frequency f_g (3 dB), sym. in 50 Ohm system | typ. 6 MHz |
| Resistance in series | 0 Ω (1-2/5-6/7-8/11-12) |
| Message: Surge protection fault | None |
| Surge carrying capacity in acc. with IEC 61643-21 (Core-Core) | C1 (500 V / 250 A) |
| | C3 (25 A) |
| 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 |

Standards and Regulations

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

Classifications

eCl@ss

| | |
|------------|----------|
| eCl@ss 4.0 | 27140201 |
|------------|----------|

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Classifications

eCl@ss

| | |
|------------|----------|
| 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 |

Approvals

Approvals

Approvals

UL Listed / GOST / GL

Ex Approvals


UL Listed / cUL Listed / cULus Listed

Approvals submitted

Approval details

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Approvals

| | |
|---|------|
| UL Listed  | |
| Nominal current I _N | 2 A |
| Nominal voltage U _N | 24 V |

| |
|--|
| GOST  |
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| |
|----|
| GL |
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Accessories

Accessories

Marking

Marker pen - X-PEN 0,35 - 0811228



Marker pen without ink cartridge, for manual labeling of markers, labeling extremely wipe-proof, line thickness 0.35 mm

Zack Marker strip, flat - ZBF 5:UNBEDRUCKT - 0808642



Zack Marker strip, flat, Strip, white, Unlabeled, Can be labeled with: Plotter, Mounting type: Snap into flat marker groove, For terminal block width: 5 mm, Lettering field: 5.1 x 5.2 mm

Zack Marker strip, flat - ZBF 5/WH-100:UNBEDRUCKT - 0808668



Zack Marker strip, flat, Strip, white, Unlabeled, Can be labeled with: Plotter, Mounting type: Snap into flat marker groove, For terminal block width: 5 mm, Lettering field: 5.15 x 5.15 mm

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Accessories

Zack Marker strip, flat - ZBF 5,LGS:FORTL.ZAHLEN - 0808671



Zack Marker strip, flat, Strip, white, labeled, Printed horizontally: Consecutive numbers 1 - 10, 11 - 20, etc. up to 491 - 500, Mounting type: Snap into flat marker groove, For terminal block width: 5 mm, Lettering field: 5.15 x 5.15 mm

Zack Marker strip, flat - ZBF 5,LGS:GERADE ZAHLEN - 0810821



Zack Marker strip, flat, Strip, white, labeled, Printed horizontally: Consecutive numbers 2 - 20, 22 - 40, etc. up to 82 - 100, Mounting type: Snap into flat marker groove, For terminal block width: 5 mm, Lettering field: 5.15 x 5.15 mm

Zack Marker strip, flat - ZBF 5,LGS:UNGERADE ZAHLEN - 0810863



Zack Marker strip, flat, Strip, white, labeled, Printed horizontally: Odd numbers 1 - 19, 21 - 39, etc. up to 81 - 99, Mounting type: Snap into flat marker groove, For terminal block width: 5 mm, Lettering field: 5.15 x 5.15 mm

Zack Marker strip, flat - ZBF 5,QR:FORTL.ZAHLEN - 0808697



Zack Marker strip, flat, Strip, white, labeled, Printed vertically: Consecutive numbers 1 - 10, 11 - 20, etc. up to 91 - 100, Mounting type: Snap into flat marker groove, For terminal block width: 5 mm, Lettering field: 5.15 x 5.15 mm

Zack marker strip - ZBN 18:UNBEDRUCKT - 2809128



Zack marker strip, Strip, white, Unlabeled, Can be labeled with: Plotter, Mounting type: Snap into tall marker groove, For terminal block width: 18 mm, Lettering field: 18 x 5 mm

Required add-on products

Surge protection connector - PT 4-24DC-ST - 2839240

Accessories

Surge protection base element - PT 4-BE - 2839402



Base element for protective plug PT with protective circuit for a 4-wire floating signal circuit, bridge 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

Surge protection base element - PT 4+F-BE - 2839415



Base element for protective plug PT with protective circuit for a 4-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 NS35/15, housing width: 17.5 mm

Additional products

Shield connection - SSA 3-6 - 2839295



shield fast connections for conductor diameter 3 - 6 mm. Potential connection cable: 200 mm, black

Shield connection - SSA 5-10 - 2839512

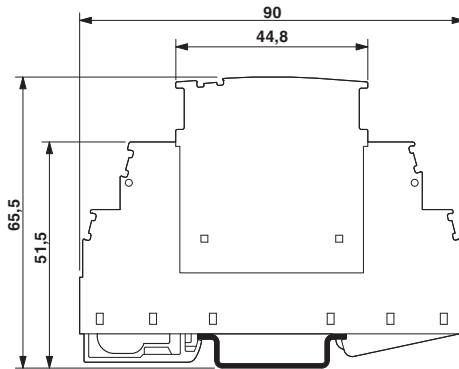


Shield fast connection for conductor diameters 5 - 10 mm. Potential connection cable: 200 mm, black

Drawings

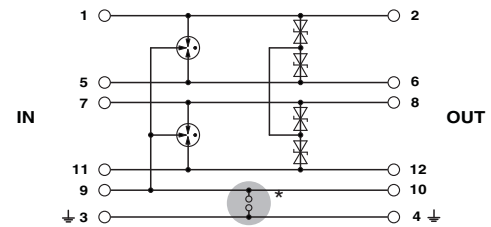
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Dimensioned drawing



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

Circuit diagram



Application drawing

