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# Surge protection plug - PT 4X1- 5DC-ST - 2838306

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Protective plug PT with protective circuit for 4 conductors of signal circuits grounded on one side. Nominal voltage: 5 V DC

## Product Features

☑ Plugs can be checked with CHECKMASTER

☑ Installed in conjunction with the PT 4x1...-BE base element

☑ 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

☑ Protection for four conductors with common reference potential

☑ Impedance-neutral disconnection of plug for test and maintenance purposes

## Key commercial data

| | |
|---|---|
| Packing unit | 1 pc |
| Weight per Piece (excluding packing) | 25.06 GRM |
| Custom tariff number | 85363010 |
| Country of origin | Germany |

## Technical data

### Dimensions

| | |
|---|---|
| Height | 45 mm |
| Width | 17.7 mm |
| Depth | 52 mm |
| Horizontal pitch | 1 Div. |
| Complete module height | 90 mm |

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## Technical data

### Dimensions

| | |
|---|---|
| Complete module width | 17.7 mm |
| Complete module 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 |
| Type | 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 $U_N$ | 5 V DC |
| Maximum continuous operating voltage $U_C$ | 6 V DC |
| | 4 V AC |
| Maximum continuous voltage $U_C$ (wire-ground) | 6 V DC |
| | 4 V AC |
| Nominal current $I_N$ | 300 mA (45°C) |
| Operating effective current $I_C$ at $U_C$ | ≤ 1 mA |
| Residual current $I_{PE}$ | ≤ 1 µA (BE: 4x1+F) |
| | ≤ 4 mA (Directly grounded) |
| 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) µs maximum (Core-Earth) | 10 kA |
|---|---|
| Nominal pulse current Ian (10/1000) µs (Core-Earth) | 125 A |
| Impulse discharge current (10/350)#µs, peak value $I_{imp}$ | 2.5 kA (per path) |
| Output voltage limitation at 1 kV/µs (Core-Earth) spike | $\leq$ 14 V |
| Output voltage limitation at 1 kV/µs (Core-Earth) static | $\leq$ 10 V |
| Residual voltage at $I_n$, (conductor-ground) | $\leq$ 10 V |
| Voltage protection level $U_P$ (Core-Earth) | $\leq$ 50 V (C2 (10 kV/5 kA)) |
| Response time tA (Core-Earth) | $\leq$ 1 ns |
| Input attenuation aE, asym. | 0.5 dB ($\leq$ 200 kHz) |
| Cut-off frequency fg (3 dB), asym. (PE) in 50 Ohm system | typ. 1 MHz |
| Capacity (Core-Earth) | 6 nF |
| Resistance in series | 4.7 $\Omega$ (Path 1-2/5-6) |
| | 4.7 $\Omega$ (Path 7-8, 11-12) |
| Surge protection fault message | None |
| Max. required back-up fuse | 315 mA (e.g. T ( IEC 127-2/III)) |
| Surge current resistance (conductor-ground) | 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 |
| Screw thread | M3 |
| Tightening torque | 0.8 Nm |
| Stripping length | 8 mm |
| Conductor cross section stranded min. | 0.2 mm² |
| Conductor cross section stranded max. | 2.5 mm² |
| Conductor cross section solid min. | 0.2 mm² |
| Conductor cross section solid max. | 4 mm² |
| Conductor cross section AWG/kcmil min. | 24 |
| Conductor cross section AWG/kcmil max | 12 |

### Standards and Regulations

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

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## 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 |

## Approvals

### Approvals

Approvals

UL Listed / GOST

Ex Approvals

UL Listed / cUL Listed / cULus Listed

Approvals submitted

Approval details

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## Approvals

| UL Listed 🛡 | |
|---|---|
| | |
| Nominal current IN | 0.3 A |
| Nominal voltage UN | 5 V |

| GOST 🅿 | |
|---|---|

## Accessories

### Accessories

### Device marking

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

### Labeled terminal marker

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

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## Accessories

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

## Marker pen

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

## Terminal marking

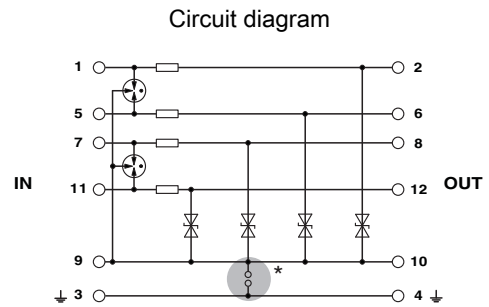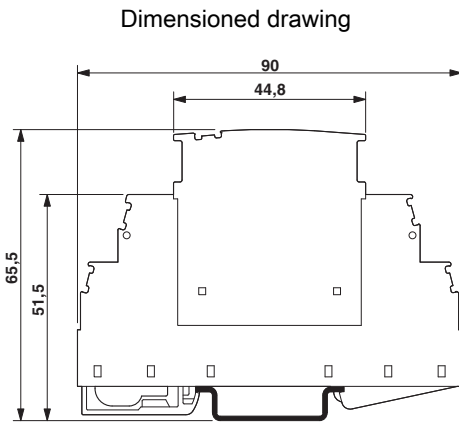Zack Marker strip, flat - ZBF 5:UNBEDRUCKT - 0808642

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

## Drawings

### Dimensioned drawing

### Circuit diagram

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

### Application photo

Figure may contain other products.

### Application photo

Figure may contain other products.

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Catalog photo



Figure may contain other products.