

## Surge protection plug - PT 2X1-VF-230AC-ST - 2921365

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Protective connector with protective circuit free of leakage current for two floating signals. Connection in series, consisting of varistor and gas-filled surge arrester between signal wires and ground.


Illustration shows variant PT 2X1-VF-120AC-ST

### Why buy this product

- ✓ 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
- ✓ Protective devices for use in telecommunications and signaling networks according to IEC 61643-21
- ✓ Impedance-neutral disconnection of plug for test and maintenance purposes



### Key commercial data

|                                      |                                                                                                         |
|--------------------------------------|---------------------------------------------------------------------------------------------------------|
| Packing unit                         | 10 pc                                                                                                   |
| Minimum order quantity               | 10 pc                                                                                                   |
| GTIN                                 | <br>4 046356 286572 |
| Weight per Piece (excluding packing) | 23.33 g                                                                                                 |
| Custom tariff number                 | 85363010                                                                                                |
| Country of origin                    | Germany                                                                                                 |
| Note                                 | Made to Order (non-returnable)                                                                          |

### Technical data

#### Dimensions

|                  |         |
|------------------|---------|
| Height           | 45 mm   |
| Width            | 17.7 mm |
| Depth            | 52 mm   |
| Horizontal pitch | 1 Div.  |

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## Technical data

### Dimensions

|                        |         |
|------------------------|---------|
| Complete module height | 90 mm   |
| Complete module width  | 17.7 mm |
| Complete module depth  | 65.5 mm |

### Ambient conditions

|                                 |                  |
|---------------------------------|------------------|
| Ambient temperature (operation) | -40 °C ... 80 °C |
| Degree of protection            | IP20             |

### General

|                                         |                                         |
|-----------------------------------------|-----------------------------------------|
| Housing material                        | PA 6.6                                  |
| Inflammability class according to UL 94 | V0                                      |
| Color                                   | black                                   |
| Mounting type                           | On base element                         |
| Type                                    | DIN rail module, two-section, divisible |
| Number of positions                     | 2                                       |
| Direction of action                     | Line-Line & Line-Earth Ground           |

### Protective circuit

|                                                                        |                                |
|------------------------------------------------------------------------|--------------------------------|
| IEC test classification                                                | C1                             |
|                                                                        | C2                             |
|                                                                        | C3                             |
|                                                                        | D1                             |
| Nominal voltage $U_N$                                                  | 230 V AC                       |
| Maximum continuous operating voltage $U_C$                             | 250 V AC                       |
| Maximum continuous voltage $U_C$ (wire-ground)                         | 250 V AC                       |
| Nominal current $I_N$                                                  | 6 A                            |
| Operating effective current $I_C$ at $U_C$                             | $\leq 2 \mu A$                 |
| Residual current $I_{PE}$                                              | $\leq 2 \mu A$ (at $U_N$ )     |
| Nominal discharge current $I_n$ (8/20) $\mu s$                         | 3 kA                           |
| Max. discharge current $I_{max}$ (8/20) $\mu s$                        | 8 kA                           |
| Nominal pulse current $I_{an}$ (10/1000) $\mu s$ (Core-Earth)          | 100 A                          |
| Impulse discharge current (10/350) $\mu s$ , peak value $I_{imp}$      | 500 A                          |
| Output voltage limitation at 1 kV/ $\mu s$ (Core-Earth) static         | $\leq 1.4$ kV                  |
| Residual voltage at $I_n$ , (conductor-conductor)                      | $\leq 2$ kV                    |
| Residual voltage at $I_n$ , (conductor-ground)                         | $\leq 1$ kV                    |
| Residual voltage with $I_{an}$ (10/1000) $\mu s$ (conductor-conductor) | $\leq 1.4$ kV                  |
| Residual voltage with $I_{an}$ (10/1000) $\mu s$ (conductor-ground)    | $\leq 700$ V                   |
| Energy absorption                                                      | 150 J                          |
| Voltage protection level $U_p$ (core-core)                             | $\leq 2.5$ kV (C2 - 4 kV/2 kA) |
|                                                                        | $\leq 1.8$ kV (C3 - 100 A)     |
|                                                                        | $\leq 2.6$ kV (D1 - 500 A)     |
| Voltage protection level $U_p$ (core-ground)                           | $\leq 1.1$ kV (C1 - 500 A)     |

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## Technical data

### Protective circuit

|                                       |                                        |
|---------------------------------------|----------------------------------------|
|                                       | $\leq 1.5 \text{ kV}$ (C2 - 4 kV/2 kA) |
|                                       | $\leq 1.6 \text{ kV}$ (C3 - 100 A)     |
|                                       | $\leq 1.8 \text{ kV}$ (D1 - 500 A)     |
| Response time $t_A$                   | $\leq 100 \text{ ns}$                  |
| Capacity (Core-Core)                  | typ. 1.5 pF                            |
| Capacity (Core-Earth)                 | typ. 3 pF                              |
| Resistance in series                  | 0 $\Omega$                             |
| Max. required back-up fuse            | 6 A (gL / gG)                          |
| Impulse durability (conductor-ground) | C2 (4 kV / 2 kA)                       |
|                                       | C3 - 100 A                             |
|                                       | D1 (500 A)                             |

### 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                                |

## 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 plug - PT 2X1-VF-230AC-ST - 2921365

### Approvals

#### Approvals

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Approvals

EAC

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Ex Approvals

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Approvals submitted

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#### Approval details

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| EAC |
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### 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

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#### 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

### Necessary add-on products

# Surge protection plug - PT 2X1-VF-230AC-ST - 2921365

## Accessories

Type 3 surge protection base element - PT-BE/FM - 2839282



Base element for protective plug PT, for mounting on NS 35/7.5 and NS 35/15, housing width: 17.5 mm

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## Additional products

Shield connection - SSA 3-6 - 2839295



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

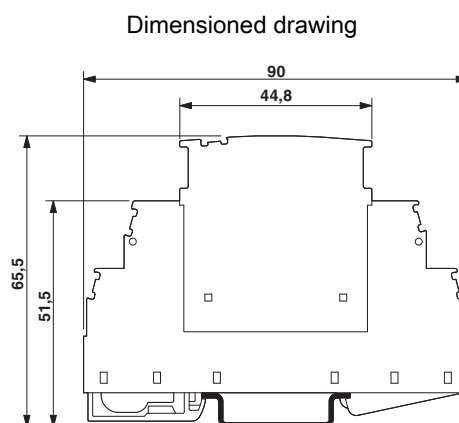
Shield connection - SSA 5-10 - 2839512



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

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## Drawings



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