

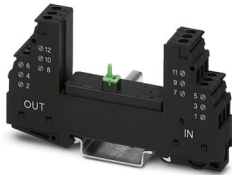
# PT 2X2+F-BE - Surge protection base-element



2839224

<https://www.phoenixcontact.com/us/products/2839224>

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Base element for protective plug PT with protective circuit for two 2-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 NS 35/15, housing width: 17.5 mm

## Your advantages

- Maximum ease of maintenance, thanks to the 2-piece design
- Easy selection for all possible demands in MCR applications with a complete product portfolio
- The signal is not influenced during maintenance work, thanks to the impedance-neutral insertion and removal of protective plugs

## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 2839224       |
| Packing unit                         | 10 pc         |
| Minimum order quantity               | 1 pc          |
| Sales key                            | CL21          |
| Product key                          | CL2111        |
| GTIN                                 | 4017918182762 |
| Weight per piece (including packing) | 58.74 g       |
| Weight per piece (excluding packing) | 58.2 g        |
| Customs tariff number                | 85366990      |
| Country of origin                    | DE            |

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## Technical data

### Notes

|                    |  |
|--------------------|--|
| Notes on operation | In the base elements <b>PT...+F-BE</b> , the connections 9/10 (GND) are linked to the mounting foot via a gas-filled surge arrester. |
|--------------------|--|

### Product properties

|                                |                                 |
|--------------------------------|---------------------------------|
| Product type                   | Base element                    |
| Product family                 | PLUGTRAB PT                     |
| Type                           | Base element, DIN rail mounting |
| Number of positions            | 4                               |
| Surge protection fault message | none                            |
| Wire pairs per module          | 2                               |

### Insulation characteristics

|                      |     |
|----------------------|-----|
| Overvoltage category | III |
| Pollution degree     | 2   |

### Electrical properties

|                       |         |
|-----------------------|---------|
| Nominal voltage $U_N$ | 24 V AC |
|                       | 24 V DC |

### Connection data

|                                  |   |
|----------------------------------|---|
| Connection method                | Screw connection                            |
| Screw thread                     | M3  |
| Tightening torque                | 0.5 Nm                                      |
| Conductor cross-section flexible | 0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> |
| Conductor cross-section rigid    | 0.2 mm <sup>2</sup> ... 4 mm <sup>2</sup>   |
| Conductor cross-section AWG      | 24 ... 12                                   |

### Dimensions

|                     |                                 |
|---------------------|---------------------------------|
| Dimensional drawing |                                 |
| Width               | 17.7 mm                         |
| Height              | 90 mm                           |
| Depth               | 51.5 mm (incl. DIN rail 7.5 mm) |
| Horizontal pitch    | 1 Div.                          |

### Material specifications

|       |                  |
|-------|------------------|
| Color | black (RAL 9005) |
|       | copper color     |

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|  |        |
|--|--------|
| Flammability rating according to UL 94 | V-0    |
| Housing material                       | PA 6.6 |

## Mechanical properties

### Mechanical data

|                 |    |
|-----------------|----|
| Open side panel | No |
|-----------------|----|

## Protective circuit

|  |                                   |
|--|-----------------------------------|
| Direction of action                        | Signal Ground/Shield-Earth Ground |
| Nominal voltage $U_N$                      | 24 V AC                           |
|  | 24 V DC                           |
| Maximum continuous operating voltage $U_C$ | 40 V DC                           |
|  | 28 V AC                           |
| Rated current                              | 450 mA (45 °C)                    |
| Resistance per path                        | 2.2 $\Omega$ $\pm$ 10 %           |
| Surge protection fault message             | none                              |
| Max. required back-up fuse                 | 500 mA (T)                        |

## Environmental and real-life conditions

### Ambient conditions

|   |                      |
|---|----------------------|
| Degree of protection                    | IP20                 |
| Ambient temperature (operation)         | -40 °C ... 85 °C     |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C     |
| Altitude                                | $\leq$ 2000 m (amsl) |

## Standards and regulations

### Air clearances and creepage distances

|                          |   |
|--------------------------|---|
| Standards/regulations    | VDE 0110-1  |
| Standards/specifications | IEC 61643-21  |
| Note                     | 2000 + corrigendum 2001 + A1:2008, modified + A2:2012 |
| Standards/specifications | EN 61643-21   |
| Note                     | 2001 + A1:2009 + A2:2013                              |

## Mounting

|               |                 |
|---------------|-----------------|
| Mounting type | DIN rail: 35 mm |
|---------------|-----------------|

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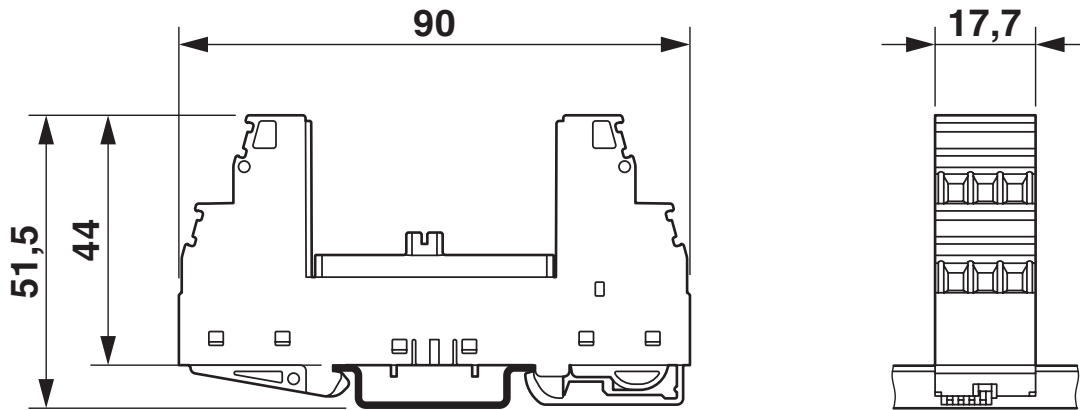


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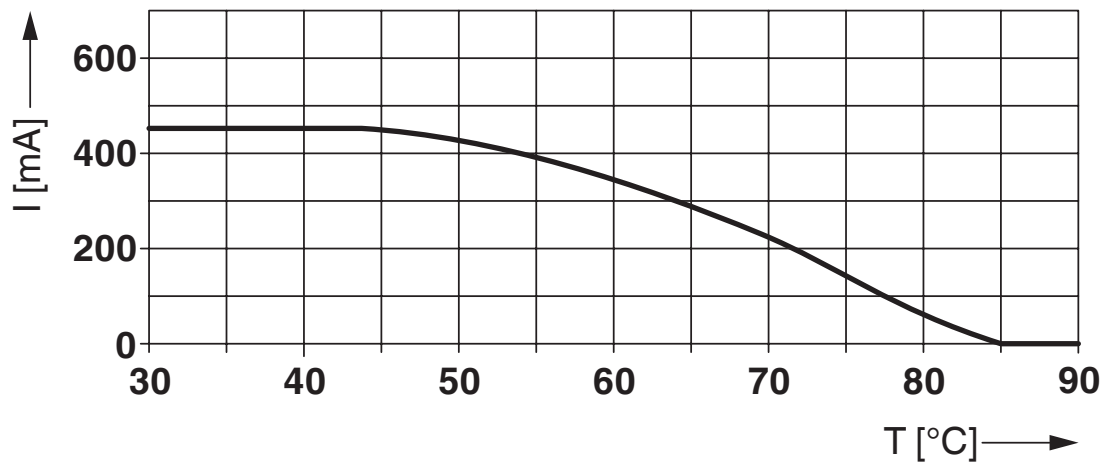
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## Drawings

Dimensional drawing



Diagram



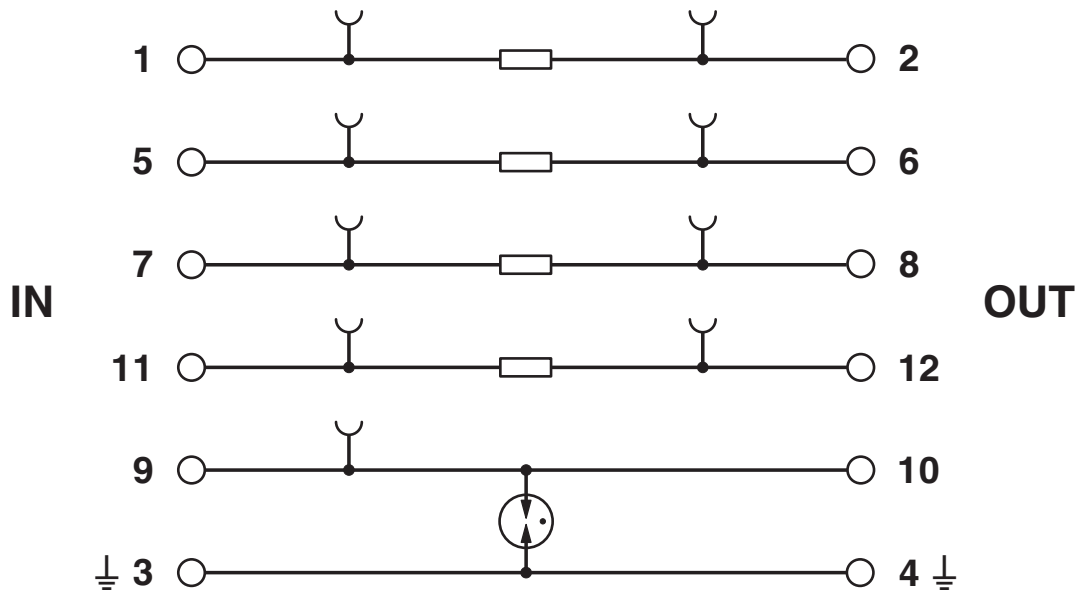
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Circuit diagram



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2839224>



**DNV GL**

Approval ID: TAE00001N6



**UL Listed**

Approval ID: FILE E 138168



**cUL Listed**

Approval ID: FILE E 333250



**UL Listed**

Approval ID: FILE E 333250

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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-13.0 | 27171592 |
| ECLASS-15.0 | 27171592 |

### ETIM

|           |          |
|-----------|----------|
| ETIM 10.0 | EC002497 |
|-----------|----------|

### UNSPSC

|             |          |
|-------------|----------|
| UNSPSC 21.0 | 39121600 |
|-------------|----------|

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## Environmental product compliance

### EU RoHS

|   |                    |
|---|--------------------|
| Fulfills EU RoHS substance requirements | Yes, No exemptions |
|---|--------------------|

### China RoHS

|  |  |
|--|--|
| Environment friendly use period (EFUP) | EFUP-E                                   |
|  | No hazardous substances above the limits |

### EU REACH SVHC

|                                     |                            |
|-------------------------------------|----------------------------|
| REACH candidate substance (CAS No.) | No substance above 0.1 wt% |
|-------------------------------------|----------------------------|

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Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)