

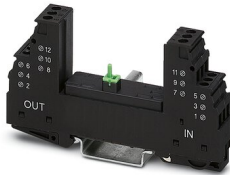
# PT 2X2+F-BE - Surge protection base-element



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	1 pc
Minimum order quantity	1 pc
Sales Key	CL21
Product Key	CL2111
Catalog Page	Page 123 (C-4-2019)
GTIN	4017918182762
Weight per Piece (including packing)	58.2 g
Weight per Piece (excluding packing)	58.2 g
Customs tariff number	85363010
Country of origin	DE

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## Technical Data

### Notes

General	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.
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### Product properties

Type	Base element, DIN rail mounting
Product type	Base element
Product family	PLUGTRAB PT
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	Copper
Flammability rating according to UL 94	V-0

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Housing material	PA 6.6
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## Mechanical properties

### Mechanical data

Open side panel	No
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## Protective circuit

Direction of action	Signal Ground/Shield-Earth Ground
Maximum continuous 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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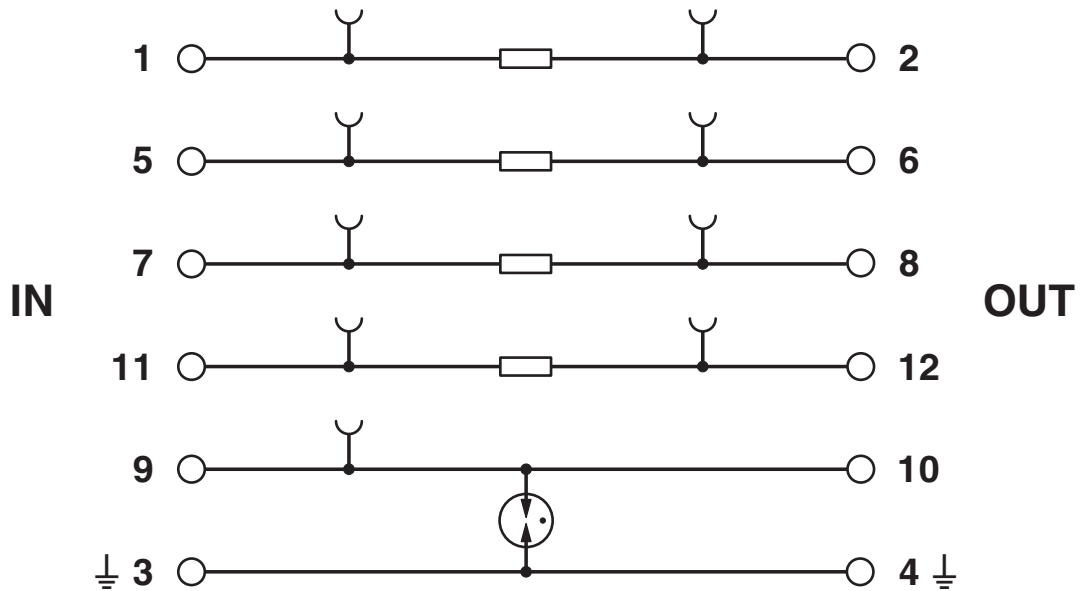


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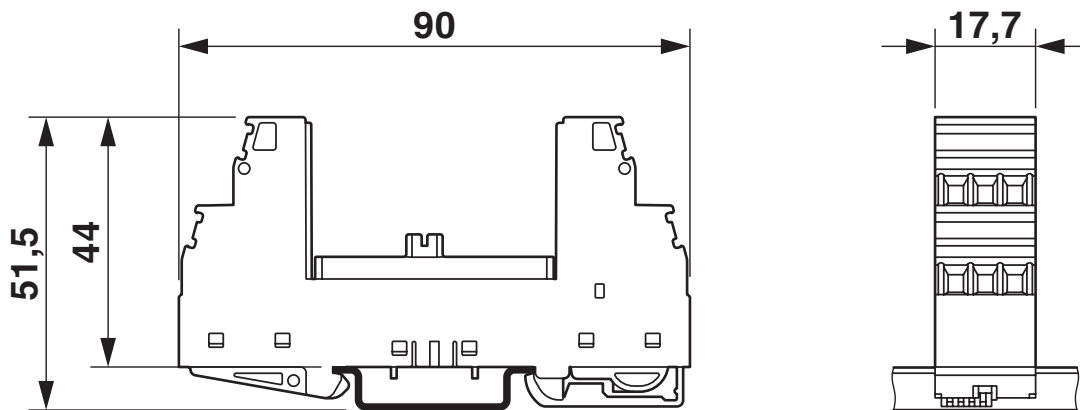
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## Drawings

Circuit diagram



Dimensional drawing



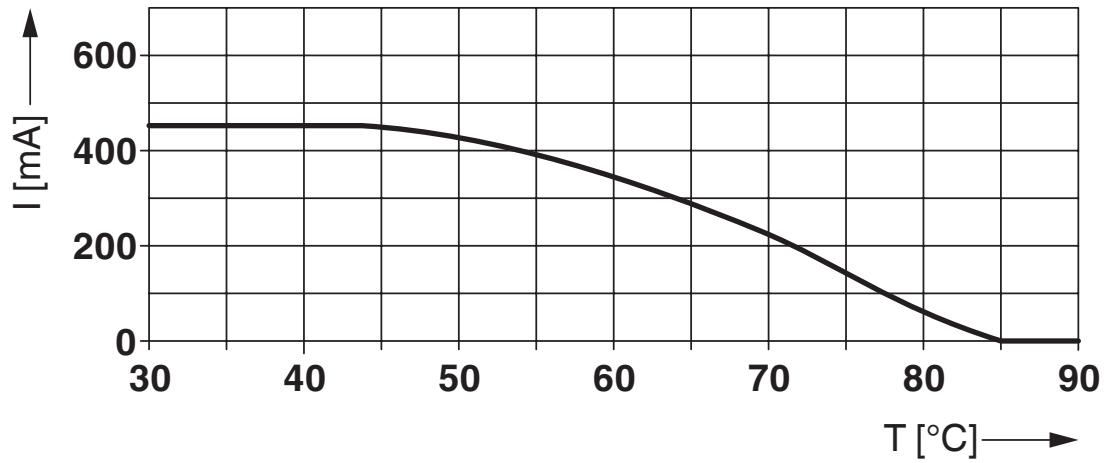
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Diagram



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



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## Approvals

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



**EAC**

Approval ID: EAC-Zulassung



**DNV GL**

Approval ID: TAE00001N6



**EAC**

Approval ID: RU C-DE.\*09.B.00169



**UL Listed**

Approval ID: FILE E 138168



**cUL Listed**

Approval ID: FILE E 333250



**UL Listed**

Approval ID: FILE E 333250

**cULus Listed**

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## Classifications

### ECLASS

ECLASS-11.0	27130803
ECLASS-13.0	27171501

### ETIM

ETIM 8.0	EC000472
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### UNSPSC

UNSPSC 21.0	39121600
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## Environmental Product Compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values



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## Accessories

### SSA 5-10 - Shield connection

2839512

<https://www.phoenixcontact.com/us/products/2839512>



Shield fast connection for 5 ... 10 mm cable diameter. Potential connecting cable:  
200 mm, 1 mm<sup>2</sup>, color: black

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### SSA 3-6 - Shield connection

2839295

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Shield fast connection for 3 ... 6 mm cable diameter. Potential connecting cable:  
200 mm, 1 mm<sup>2</sup>, color: black

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## ZB 5 :UNBEDRUCKT - Zack marker strip

1050004

<https://www.phoenixcontact.com/us/products/1050004>



Zack marker strip, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snapped, for terminal block width: 5.2 mm, lettering field size: 5.1 x 10.5 mm, Number of individual labels: 10

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

0808642

<https://www.phoenixcontact.com/us/products/0808642>



Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snapped, for terminal block width: 5 mm, lettering field size: 5.1 x 5.2 mm, Number of individual labels: 10

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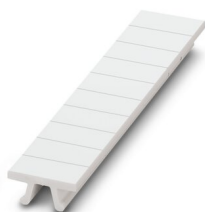
<https://www.phoenixcontact.com/us/products/2839224>



## ZB 5,8:UNBEDRUCKT - Zack marker strip

2715209

<https://www.phoenixcontact.com/us/products/2715209>



Zack marker strip, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snapped, for terminal block width: 5.8 mm, lettering field size: 5.75 x 10.5 mm, Number of individual labels: 10

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## X-PEN 0,35 - Marker pen

0811228

<https://www.phoenixcontact.com/us/products/0811228>



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

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## B-STIFT - Marker pen

1051993

<https://www.phoenixcontact.com/us/products/1051993>



Marker pen, for manual labeling of unprinted Zack strips, smear-proof and waterproof, line thickness 0.5 mm

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## PT 2X2- 5DC-ST - Surge protection plug

2838241

<https://www.phoenixcontact.com/us/products/2838241>



PT protective connector with protective circuit for two 2-wire floating signal circuits. 5 V DC nominal voltage. HART-compatible.

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## PT 2X2-12AC-ST - Surge protection plug

2838270

<https://www.phoenixcontact.com/us/products/2838270>



Surge protection plug for the base element, for two floating double wires, common mode voltage coarse protection to ground. 12 V AC nominal voltage. HART-compatible.

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## PT 2X2-12DC-ST - Surge protection plug

2838254

<https://www.phoenixcontact.com/us/products/2838254>



PT protective connector with protective circuit for two 2-wire floating signal circuits. 12 V DC nominal voltage. HART-compatible.

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



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## PT 2X2-24AC-ST - Surge protection plug

2838283

<https://www.phoenixcontact.com/us/products/2838283>



PT protective connector with protective circuit for two 2-wire floating signal circuits. 24 V AC nominal voltage. HART-compatible.

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## PT 2X2-24DC-ST - Surge protection plug

2838228

<https://www.phoenixcontact.com/us/products/2838228>



PT protective connector with protective circuit for two 2-wire floating signal circuits. 24 V DC nominal voltage. HART-compatible.

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



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## PT 2X2-HF-12 DC-ST - Surge protection plug

2839570

<https://www.phoenixcontact.com/us/products/2839570>



Surge protection plug for the base element, normal mode voltage coarse and fine protection for two floating double wires in IT. Design: 12 V DC

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## PT 2X2-HF-24 DC-ST - Surge protection plug

2839729

<https://www.phoenixcontact.com/us/products/2839729>



Protective plug PT with HF protective circuit for two 2-core floating signal circuits. Nominal voltage: 24 V DC

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



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## PT 5-HF- 5 DC-ST - Surge protection plug

2838762

<https://www.phoenixcontact.com/us/products/2838762>



Protective plug PT with HF protective circuit for 4 signal wires. Nominal voltage:  
5 V DC

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## PT 5-HF-12 DC-ST - Surge protection plug

2838775

<https://www.phoenixcontact.com/us/products/2838775>



Protective plug PT with HF protective circuit for 4 signal wires. Nominal voltage:  
12 V DC

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