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Surge protection plug - PT 4-F-ST - 2858441

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Surge protection plug for the base element, coarse protection for four signal lines grounded on one side.

Your advantages

☑ Plugs can be checked with CHECKMASTER

☑ For systems with high dielectric strength or fine protection installed

☑ Maximum ease of maintenance thanks to the two-piece design

☑ Installation location - directly where meas. and control cable enters building

☑ 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

RoHS   IP20

2A 110V 2,5 mm²   SIL evaluated IEC-61508   CHECKMASTER

Key Commercial Data

Packing unit	1 pc
GTIN	4 017918 892364
GTIN	4017918892364
Weight per Piece (excluding packing)	22.670 g
Custom tariff number	85363010
Country of origin	Germany

Technical data

Dimensions

Height	45 mm
Width	17.7 mm
Depth	52 mm

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Technical data

Dimensions

Horizontal pitch	1 Div.
Complete module height	90 mm
Complete module width	17.7 mm
Complete module depth	65.5 mm

Ambient conditions

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

General

Housing material	PA 6.6
Flammability rating according to UL 94	V-0
Color	jet black RAL 9005
Mounting type	on base element
Type	Male
Direction of action	Line-Line & Line-Signal Ground/Shield & Signal Ground/Shield-Earth Ground
Arrester can be tested with CHECKMASTER from software version:	From SW rev. 1.10

Protective circuit

IEC test classification	C1
	C2
	C3
	D1
Nominal voltage U_N	110 V AC
Maximum continuous voltage U_C	60 V DC
	120 V AC
Rated current	2 A AC (80 °C)
	150 mA DC (80 °C)
Operating effective current I_C at U_C	$\leq$ 2 µA
Residual current I_{PE}	$\leq$ 8 µA (with PT 4-BE)
	$\leq$ 2 µA (with PT 4+F-BE)
Nominal discharge current I_n (8/20) µs (line-line)	10 kA
Nominal discharge current I_n (8/20) µs (line-earth)	10 kA
Pulse discharge current I_{imp} (10/350) µs (line-earth)	2.5 kA
Total discharge current I_{total} (8/20) µs	20 kA
Output voltage limitation at 1 kV/µs (line-earth) spike	$\leq$ 450 V (with PT 4-BE)

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Protective circuit

	$\leq$ 600 V (with PT 4+F-BE)
Output voltage limitation at 1 kV/μs (line-earth) static	$\leq$ 25 V (with PT 4-BE)
	$\leq$ 50 V (with PT 4+F-BE)
Voltage protection level U_p (line-earth)	$\leq$ 450 V (C2 - 10 kV / 5 kA with PT 4-BE)
	$\leq$ 600 V (C2 - 10 kV / 5 kA with PT 4+F-BE)
Voltage protection level U_p static (line-earth)	$\leq$ 50 V (C2 - 10 kV / 5 kA with PT 4-BE)
	$\leq$ 50 V (C2 - 10 kV / 5 kA with PT 4+F-BE)
Response time t_A (line-line)	$\leq$ 100 ns
Response time t_A (line-earth)	$\leq$ 100 ns
Input attenuation aE, asym.	typ. 0.1 dB ($\leq$ 1 MHz / 50 Ω)
Cut-off frequency fg (3 dB), asym. (GND) in 50 Ohm system	typ. 100 MHz
Capacity (line-earth)	typ. 2 pF (with PT 4-BE)
	typ. 2 pF (with PT 4+F-BE)
Resistance per path	0 Ω
Surge protection fault message	none
Max. required back-up fuse	2 A AC (T)
	150 mA DC (T)
Impulse durability (line-earth)	C2 - 10 kV / 5 kA
	C1 - 1 kV / 500 A
	C3 - 100 A
	D1 - 2.5 kA

Connection data

Connection method	Screw connection (in connection with the base element)
Screw thread	M3
Tightening torque	0.5 Nm
Stripping length	8 mm
Conductor cross section flexible	0.2 mm² ... 2.5 mm²
Conductor cross section solid	0.2 mm² ... 4 mm²
Conductor cross section AWG	24 ... 12

Standards and Regulations

Standards/specifications	IEC 61643-21 2000 + corrigendum 2001 + A1:2008, modified + A2:2012
	EN 61643-21 2001 + A1:2009 + A2:2013

Environmental Product Compliance

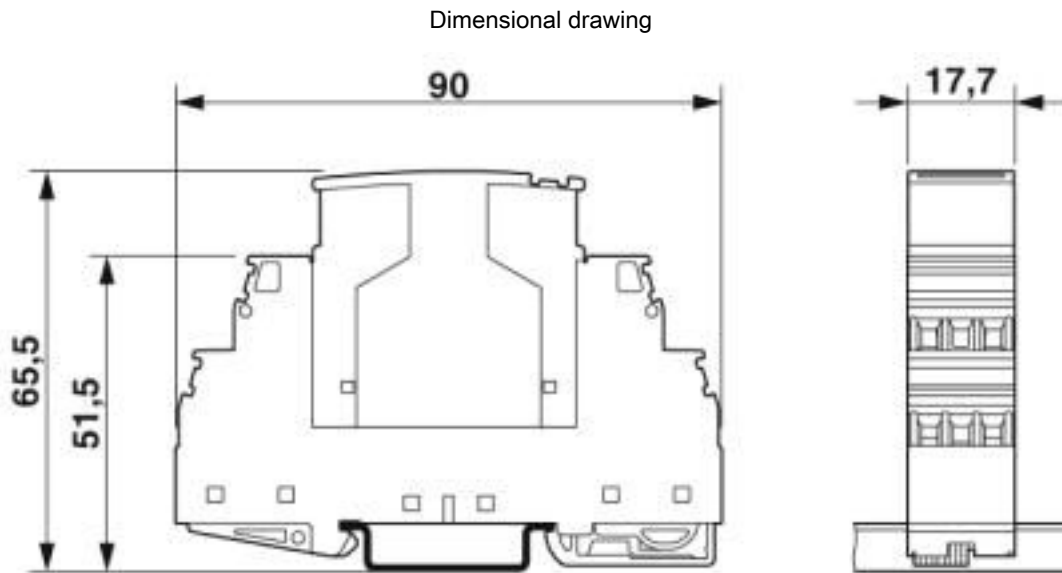| China RoHS	Environmentally Friendly Use Period = 50 years

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Technical data

Environmental Product Compliance

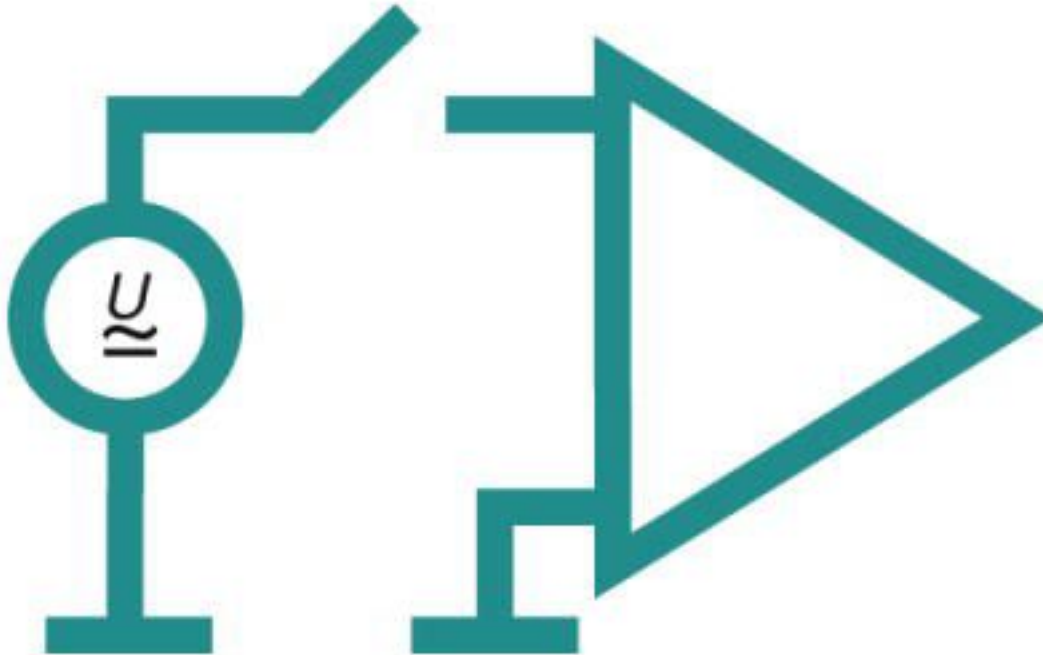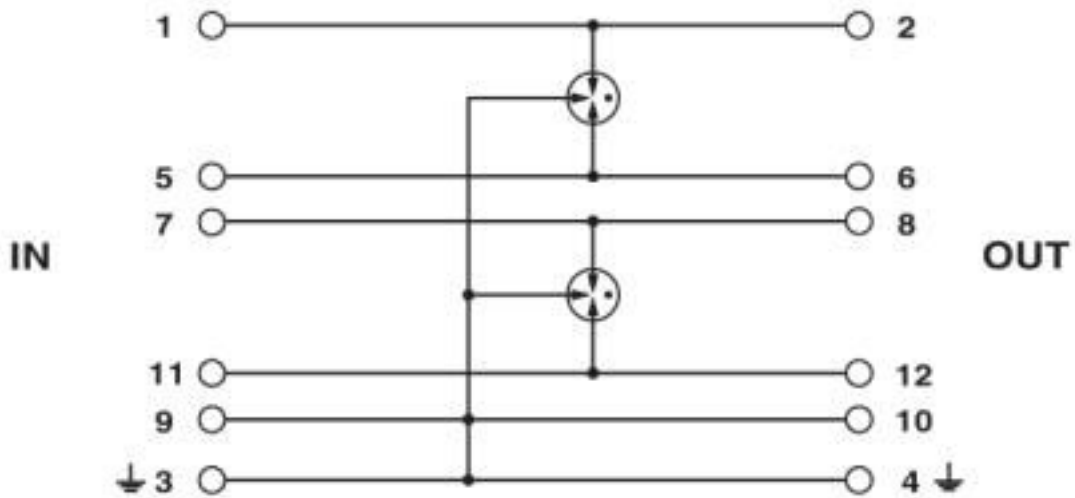|	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

Drawings

Dimensional drawing

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

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Pictogram

Circuit diagram

Classifications

eCl@ss

eCl@ss 10.0.1	27130807
eCl@ss 4.0	27130800

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Classifications

eCl@ss

eCl@ss 4.1	27130800
eCl@ss 5.0	27130800
eCl@ss 5.1	27130800
eCl@ss 6.0	27130800
eCl@ss 7.0	27130807
eCl@ss 8.0	27130807
eCl@ss 9.0	27130807

ETIM

ETIM 2.0	EC001466
ETIM 3.0	EC001466
ETIM 4.0	EC001466
ETIM 5.0	EC000943
ETIM 6.0	EC000943
ETIM 7.0	EC000943

UNSPSC

UNSPSC 6.01	30212010
UNSPSC 7.0901	39121610
UNSPSC 11	39121610
UNSPSC 12.01	39121610
UNSPSC 13.2	39121620
UNSPSC 18.0	39121620
UNSPSC 19.0	39121620
UNSPSC 20.0	39121620
UNSPSC 21.0	39121620

Approvals

Approvals

Approvals

EAC / EAC

Ex Approvals

Approval details

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Approvals

EAC	EAC	EAC-Zulassung

EAC	EAC	RU C-DE.A*30.B01561

Accessories

Accessories

Device marking

Zack marker strip - ZBN 18:UNBEDRUCKT - 2809128

Zack marker strip, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, PLOTMARK, mounting type: snap into tall marker groove, for terminal block width: 18 mm, lettering field size: 18 x 5 mm, Number of individual labels: 5

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 size: 5.15 x 5.15 mm, Number of individual labels: 10

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 size: 5.15 x 5.15 mm, Number of individual labels: 10

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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 size: 5.15 x 5.15 mm, Number of individual labels: 10

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 size: 5.15 x 5.15 mm, Number of individual labels: 10

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: PLOTMARK, CMS-P1-PLOTTER, mounting type: snap into flat marker groove, for terminal block width: 5 mm, lettering field size: 5.1 x 5.2 mm, Number of individual labels: 10

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

Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, PLOTMARK, mounting type: snap into flat marker groove, for terminal block width: 5 mm, lettering field size: 5.15 x 5.15 mm, Number of individual labels: 10

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Accessories

Necessary add-on products

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

Additional products

Shield connection - SSA 3-6 - 2839295

Shield fast connection for 3 ... 6 mm cable diameter. Potential connecting cable: 200 mm, 1 mm², color: black

Shield connection - SSA 5-10 - 2839512

Shield fast connection for 5 ... 10 mm cable diameter. Potential connecting cable: 200 mm, 1 mm², color: black