

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

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)



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

### Why buy this product

- ✓ 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



### Key Commercial Data

Packing unit	1 STK
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

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

## Technical data

### Dimensions

Depth	52 mm
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	≤ 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 $U_C$	≤ 2 μA
Residual current $I_{PE}$	≤ 8 μA (with PT 4-BE)
	≤ 2 μA (with PT 4+F-BE)
Nominal discharge current $I_n$ (8/20) μs (Core-Core)	10 kA
Nominal discharge current $I_n$ (8/20) μs (core-earth)	10 kA
Pulse discharge current $I_{imp}$ (10/350) μs (core-ground)	2.5 kA
Total discharge current $I_{total}$ (8/20) μs	20 kA

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

## Technical data

### Protective circuit

Output voltage limitation at 1 kV/ $\mu$ s (core-earth) spike	$\leq 450$ V (with PT 4-BE)
	$\leq 600$ V (with PT 4+F-BE)
Output voltage limitation at 1 kV/ $\mu$ s (core-earth) static	$\leq 25$ V (with PT 4-BE)
	$\leq 50$ V (with PT 4+F-BE)
Voltage protection level $U_p$ (core-ground)	$\leq 450$ 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 (core-ground)	$\leq 50$ 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 $t_A$ (core-core)	$\leq 100$ ns
Response time $t_A$ (core-earth)	$\leq 100$ ns
Input attenuation $a_E$ , asym.	typ. 0.1 dB ( $\leq 1$ MHz / 50 $\Omega$ )
Cut-off frequency $f_g$ (3 dB), asym. (GND) in 50 $\Omega$ system	typ. 100 MHz
Capacity (core-earth)	typ. 2 pF (with PT 4-BE)
	typ. 2 pF (with PT 4+F-BE)
Resistance in series	0 $\Omega$
Surge protection fault message	none
Max. required back-up fuse	2 A AC (T)
	150 mA DC (T)
Impulse durability (conductor-ground)	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 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section solid	0.2 mm <sup>2</sup> ... 4 mm <sup>2</sup>
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

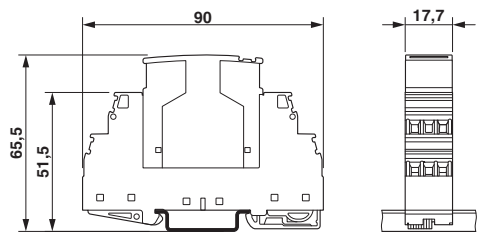
## Drawings

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

Pictogram

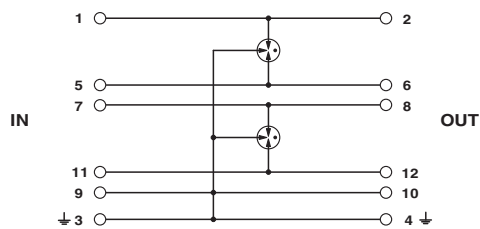


Dimensional drawing



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

Circuit diagram



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	27130809
eCl@ss 7.0	27130809
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

UNSPSC

UNSPSC 6.01	30212010
-------------	----------

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

### Classifications

#### UNSPSC

UNSPSC 7.0901	39121610
UNSPSC 11	39121610
UNSPSC 12.01	39121610
UNSPSC 13.2	39121620

### Approvals


#### Approvals


Approvals

EAC / EAC

Ex Approvals

#### Approval details

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

EAC		EAC-Zulassung
-----	---	---------------

### 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

Labeled terminal marker

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

### Accessories

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

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

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

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

### 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

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

### Accessories

#### Terminal marking

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



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: 5.1 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: 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

### 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

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

### Accessories

Shield connection - SSA 5-10 - 2839512



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