

## Surge protection plug - PT PE/S+1X2-24-ST - 2819008

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Protective plug PT with surge voltage equipment protection for power supply units, visual error display, nominal voltage: 24 V and a 2-core floating signal circuit, nominal voltage: 24 V.

### Your advantages

- ✓ 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
- ✓ Impedance-neutral disconnection of plug for test and maintenance purposes



### Key Commercial Data

Packing unit	10 pc
GTIN	 4 017918 819323
GTIN	4017918819323

### 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

#### General

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

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## Technical data

### General

Color	jet black RAL 9005
Mounting type	on base element
Type	Male
Current supply arrester can be tested with CHECKMASTER starting with software version:	From SW rev. 1.00
Direction of action	L-N-PE & Signal Line-Signal Line-Earth Ground

### Protective circuit, power supply

EN type	T3
Arrester rated voltage $U_C$	34 V AC
	44 V DC
Nominal frequency $f_N$	50 Hz (60 Hz)
Rated load current $I_L$	6 A (30 °C)
Operating effective current $I_C$ at $U_C$	$\leq 1.5$ mA
Residual current $I_{PE}$	$\leq 5$ $\mu$ A
Nominal discharge current $I_n$ (8/20) $\mu$ s	700 A
Max. discharge current $I_{max}$ (8/20) $\mu$ s	2 kA
Combination wave $U_{oc}$	2 kV
Voltage protection level $U_p$ (L-N)	$\leq 0.18$ kV
Voltage protection level $U_p$ (L-PE)	$\leq 0.55$ kV
Response time (L-N)	$\leq 25$ ns
Response time (L-PE)	$\leq 100$ ns
Surge protection fault message	optical

### Connection (protective circuit, power supply)

Connection method	Screw connection (in connection with the base element)
Connection method IN	PLUGTRAB plug-in system
Connection method OUT	PLUGTRAB plug-in system
Screw thread	M3
Stripping length	8 mm

### Protective circuit, information technology

Nominal voltage $U_N$	24 V AC
Arrester rated voltage $U_C$	40 V DC
	28 V AC
Rated current	450 mA (45 °C)
Operating effective current $I_C$ at $U_C$	$\leq 5$ $\mu$ A
Residual current $I_{PE}$	$\leq 2$ $\mu$ A
Nominal discharge current $I_n$ (8/20) $\mu$ s (line-line)	10 kA
Nominal discharge current $I_n$ (8/20) $\mu$ s (line-earth)	10 kA
Max. discharge current $I_{max}$ (8/20) $\mu$ s maximum (line-line)	10 kA
Max. discharge current $I_{max}$ (8/20) $\mu$ s maximum (line-earth)	20 kA (in total)

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### Technical data

#### Protective circuit, information technology

Voltage protection level $U_p$ (line-line)	$\leq 80$ V (C2 - 10 kV / 5 kA)
Voltage protection level $U_p$ (line-earth)	$\leq 450$ V (C2 - 10 kV / 5 kA)
Response time $t_A$ (line-line)	$\leq 1$ ns
Response time $t_A$ (line-earth)	$\leq 100$ ns
Input attenuation aE, sym.	typ. 0.5 dB ( $\leq 1.5$ MHz / 50 $\Omega$ )
	typ. 0.2 dB ( $\leq 500$ kHz / 150 $\Omega$ )
	typ. 0.1 dB ( $\leq 100$ kHz / 600 $\Omega$ )
Cut-off frequency $f_g$ (3 dB), sym. in 50 Ohm system	typ. 8 MHz
Cut-off frequency $f_g$ (3 dB), sym. in 150 Ohm system	typ. 3 MHz
Cut-off frequency $f_g$ (3 dB), sym. in 600 Ohm system	typ. 800 kHz
Capacity (line-line)	typ. 1.1 nF
Capacity (line-earth)	typ. 4 pF
Resistance per path	2.2 $\Omega \pm 10$ %
Surge protection fault message	Optical, remote indicator contact
Output voltage limitation at 1 kV/ $\mu$ s (wire-wire)	$\leq 55$ V
Output voltage limitation at 1 kV/ $\mu$ s (wire-earth)	$\leq 25$ V
Residual voltage at $I_n$ (line-line)	$\leq 55$ V
Residual voltage with $I_{an}$ (10/1000) $\mu$ s (line-line)	$\leq 65$ V
Impulse durability (line-line)	C2 - 10 kV / 5 kA
	C3 - 23 A
Impulse durability (line-earth)	C2 - 10 kV / 5 kA
	D1 - 2.5 kA

#### Power supply, general

Connection method	Screw connection (in connection with the base element)
Connection method IN	PLUGTRAB plug-in system
Connection method OUT	PLUGTRAB plug-in system
Screw thread	M3
Stripping length	8 mm

#### Standards (protective circuit, information technology)

IEC test classification	C1
	C2
	C3
	D1

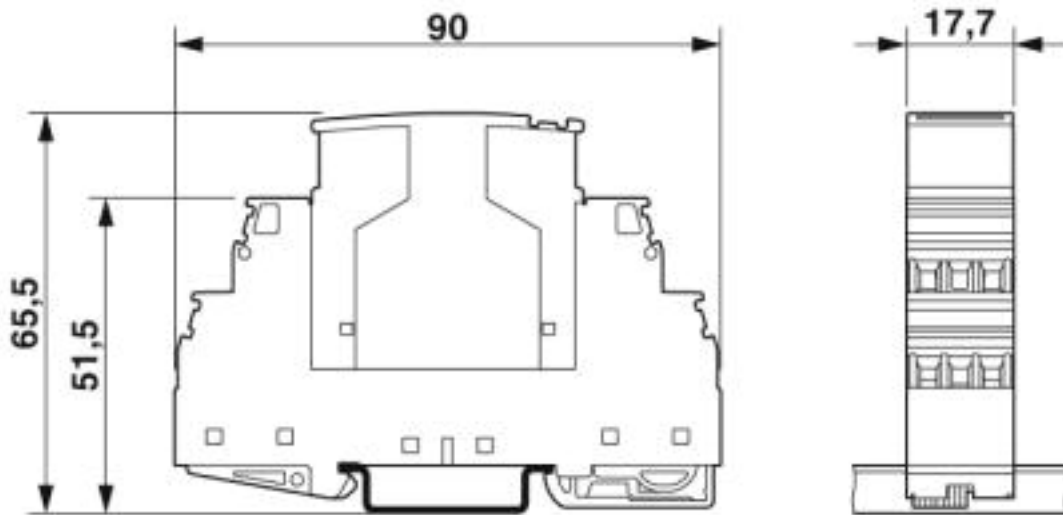
#### Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

# Surge protection plug - PT PE/S+1X2-24-ST - 2819008

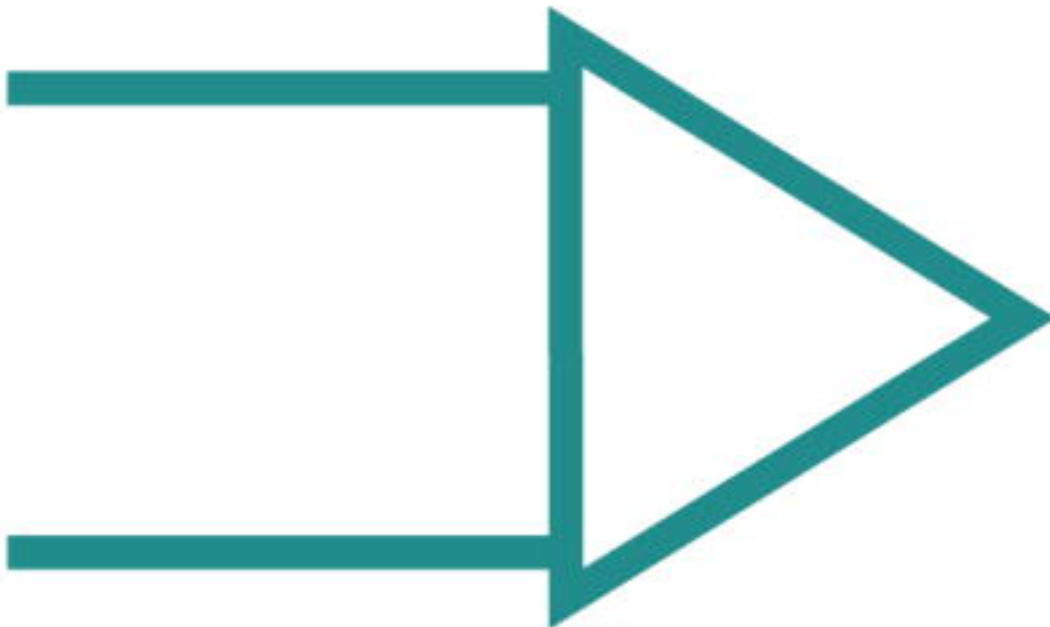
## Drawings

Dimensional drawing



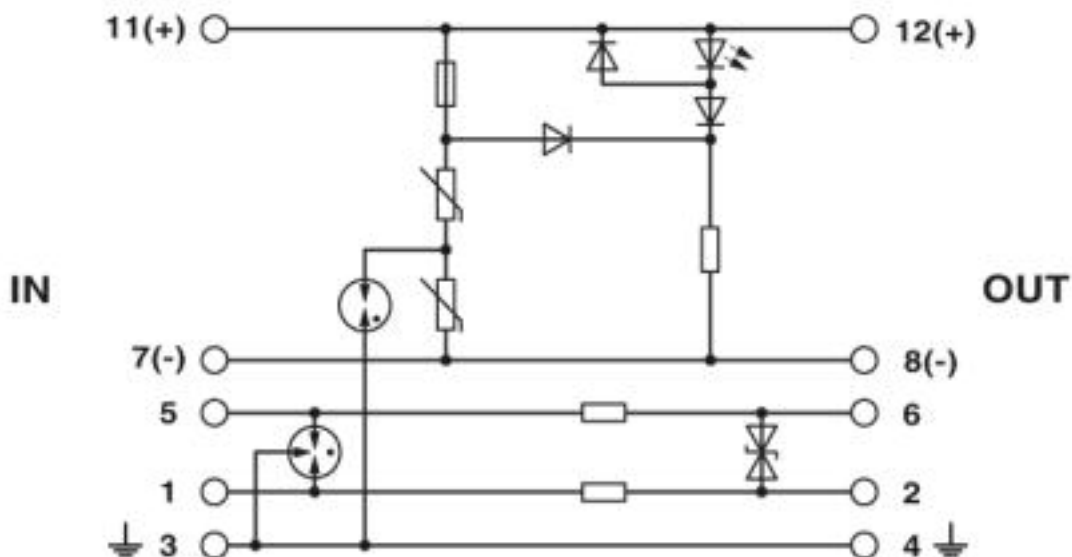
The figure shows the complete module consisting of a base element and connector

Pictogram



## Surge protection plug - PT PE/S+1X2-24-ST - 2819008

Circuit diagram



### Classifications

eCl@ss

eCl@ss 10.0.1	27130810
eCl@ss 4.0	27130800
eCl@ss 4.1	27130800
eCl@ss 5.0	27130800
eCl@ss 5.1	27130800
eCl@ss 6.0	27130800
eCl@ss 7.0	27130805
eCl@ss 8.0	27130810
eCl@ss 9.0	27130810

ETIM

ETIM 2.0	EC000943
ETIM 3.0	EC000943
ETIM 4.0	EC000899
ETIM 5.0	EC001473
ETIM 6.0	EC001473
ETIM 7.0	EC001473

UNSPSC

UNSPSC 6.01	30212010
UNSPSC 7.0901	39121610
UNSPSC 11	39121610
UNSPSC 12.01	39121610
UNSPSC 13.2	39121620

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## Classifications

### UNSPSC

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

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

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### 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, 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

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

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### Accessories

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

### Necessary add-on products

Surge protection base element - PT PE/S+1X2-BE - 2856265



Base element for protective plug PT with surge voltage device protection for the power supply unit and one 2-wire floating signal circuit, mounting on NS 35/7.5 and NS 35/15, housing width: 17.5 mm

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