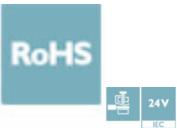


## Surge protection device - S-PT1-2PE-24DC - 2818122

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Screw on module for conduit systems, with two conductor protection for a 2-core floating signal circuit. Design: 24 V DC



### Key Commercial Data

Packing unit	1 pc
GTIN	 4 017918 148355
GTIN	4017918148355
Weight per Piece (excluding packing)	315.800 g
Custom tariff number	85363010
Country of origin	Germany

### Technical data

#### Note

Trade restriction	The products are offered exclusively for export outside the EU and the European Economic Area.
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#### Dimensions

Height	33 mm
Width	33 mm
Depth	120 mm

#### Ambient conditions

Ambient temperature (operation)	-40 °C ... 80 °C
Degree of protection	IP40

#### General

## Surge protection device - S-PT1-2PE-24DC - 2818122

### Technical data

#### General

Color	silver
Standards for clearances and creepage distances	VDE 0110-1
	IEC 60664-1
Mounting type	Connection-specific intermediate plugging
Type	Screw-in module
Number of positions	3
Direction of action	Line-Line & Line-Earth Ground

#### Protective circuit

IEC test classification	C1
	C2
	C3
	D1
Nominal voltage $U_N$	24 V DC
Maximum continuous voltage $U_C$	28 V DC
	20 V AC
Maximum continuous voltage $U_C$ (wire-wire)	28 V DC
	20 V AC
Nominal current $I_N$	250 mA (25 °C)
Operating effective current $I_C$ at $U_C$	$\leq 5 \mu\text{A}$
Residual current $I_{PE}$	$\leq 2 \mu\text{A}$
Nominal discharge current $I_n$ (8/20) $\mu\text{s}$ (line-line)	10 kA
Nominal discharge current $I_n$ (8/20) $\mu\text{s}$ (line-earth)	10 kA
Total surge current (8/20) $\mu\text{s}$	20 kA
Max. discharge current $I_{max}$ (8/20) $\mu\text{s}$ maximum (line-line)	10 kA
Max. discharge current $I_{max}$ (8/20) $\mu\text{s}$ maximum (line-earth)	10 kA
Nominal pulse current $I_{an}$ (10/1000) $\mu\text{s}$ (line-line)	180 A
Nominal pulse current $I_{an}$ (10/1000) $\mu\text{s}$ (line-earth)	180 A
Output voltage limitation at 1 kV/ $\mu\text{s}$ (line-line) spike	$\leq 60 \text{ V}$
Output voltage limitation at 1 kV/ $\mu\text{s}$ (line-earth) spike	$\leq 450 \text{ V}$
Output voltage limitation at 1 kV/ $\mu\text{s}$ (line-line) static	$\leq 60 \text{ V}$
Residual voltage at $I_n$ (line-line)	$\leq 40 \text{ V}$
Residual voltage at $I_n$ (line-earth)	$\leq 60 \text{ V}$
Residual voltage with $I_{an}$ (10/1000) $\mu\text{s}$ (line-line)	$\leq 25 \text{ V}$
Residual voltage with $I_{an}$ (10/1000) $\mu\text{s}$ (line-earth)	$\leq 20 \text{ V}$
Voltage protection level $U_p$ (line-line)	$\leq 55 \text{ V}$
Voltage protection level $U_p$ (line-earth)	$\leq 550 \text{ V}$

## Surge protection device - S-PT1-2PE-24DC - 2818122

### Technical data

#### Protective circuit

Response time $t_A$ (line-line)	$\leq 1$ ns
Response time $t_A$ (line-earth)	$\leq 100$ ns
Input attenuation aE, sym.	$\leq 1.6$ dB (up to 500 kHz, 50 $\Omega$ system)
	$\leq 0.6$ dB (up to 200 kHz, 150 $\Omega$ system)
	$\leq 0.2$ dB (up to 50 kHz, 600 $\Omega$ system)
Cut-off frequency $f_g$ (3 dB), sym. in 50 Ohm system	typ. 3.5 MHz
Cut-off frequency $f_g$ (3 dB), sym. in 150 Ohm system	typ. 1.5 MHz
Cut-off frequency $f_g$ (3 dB), sym. in 600 Ohm system	typ. 400 kHz
Capacity (line-line)	typ. 1.5 nF
Resistance per path	10 $\Omega$ 5 %
Surge protection fault message	none
Impulse durability (line-line)	C2 - 10 kV / 5 kA
Impulse durability (line-earth)	C2 - 10 kV / 5 kA
	D1 - 2.5 kA
Alternating current carrying capacity (line-earth)	5 A - 1 s

#### Connection data

Connection method	Screw connection
Connection method IN	Screw terminal blocks
Connection method OUT	Screw terminal blocks
Conductor cross section flexible min.	0.14 mm <sup>2</sup>
Conductor cross section flexible max.	1.5 mm <sup>2</sup>
Conductor cross section solid min.	0.14 mm <sup>2</sup>
Conductor cross section solid max.	1.5 mm <sup>2</sup>
Conductor cross section AWG min.	26
Conductor cross section AWG max.	16

#### Standards and Regulations

Standards/regulations	IEC 61643-21
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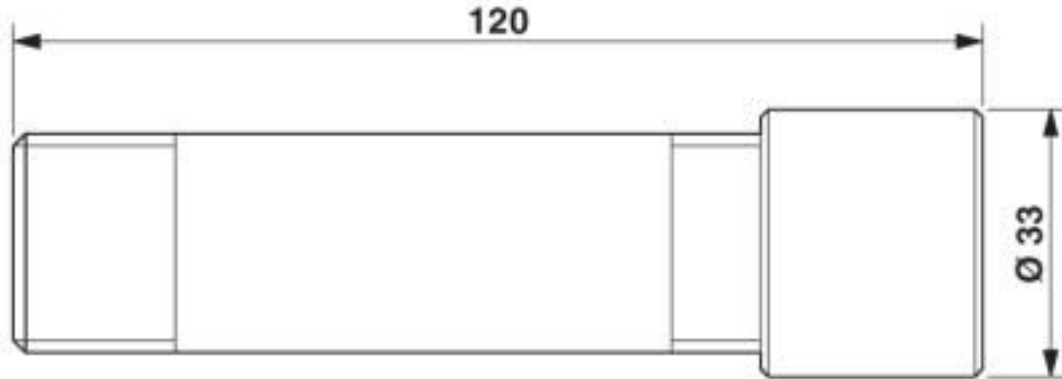
#### Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
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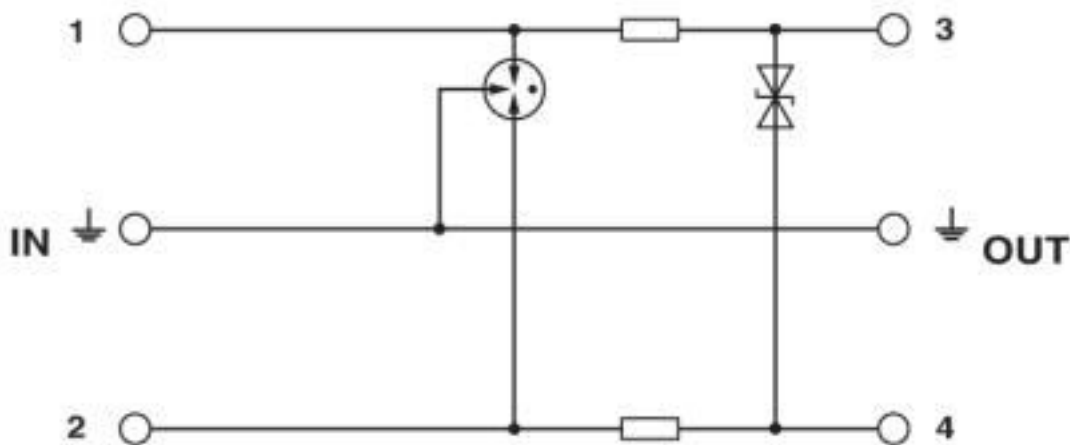
### Drawings

## Surge protection device - S-PT1-2PE-24DC - 2818122

Dimensional drawing



Circuit diagram



### Classifications

eCl@ss

eCl@ss 10.0.1	27130807
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	27130807
eCl@ss 8.0	27130807
eCl@ss 9.0	27130807

# Surge protection device - S-PT1-2PE-24DC - 2818122

## Classifications

### ETIM

ETIM 2.0	EC000943
ETIM 3.0	EC000943
ETIM 4.0	EC000943
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 19.0	39121620

## Approvals

### Approvals

Approvals

UL Listed / EAC

Ex Approvals

UL Listed / cUL Listed / cULus Listed

### Approval details

UL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 138168
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EAC		RU C- DE.*09.B.00169
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## Accessories

### Spare parts

## Surge protection device - S-PT1-2PE-24DC - 2818122

### Accessories

Surge protection device - S-PT1-2PE-24DC/P - 2818216



Spare PCB for screw-in module for conduit systems, with two conductor protection for a 2-core floating signal circuit.  
Design: 24 V DC

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[SRA64C060X](#) [PC642C015](#) [1810-15-A3](#) [GT-SMD181215012-TR](#) [4B06B-EC1-150LF](#) [MAX14588ETE+T](#) [SRA6LC](#) [SP6-230-BFM](#) [DSL04-](#)  
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