

## Surge protection device - LIT 2X1-24 - 2804636

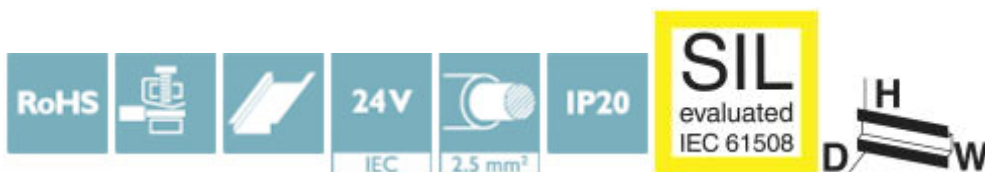
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Surge protection in one-piece 6.2 mm wide DIN rail module for two conductors with common reference potential.

### Why buy this product

- Can be used in binary, analog, and intrinsically safe circuits
- Protection of up to four signal wires over a design width of 6.2 mm



### Key Commercial Data

Packing unit	10 STK
GTIN	 4 046356 428316
GTIN	4046356428316

### Technical data

#### Dimensions

Height	93.1 mm
Width	6.2 mm
Depth	102.5 mm (incl. DIN rail 7.5 mm)

#### Ambient conditions

Ambient temperature (operation)	-40 °C ... 80 °C
Ambient temperature (storage/transport)	-40 °C ... 80 °C
Altitude	≤ 2000 m (amsl (above mean sea level))
Degree of protection	IP20

#### General

Housing material	PBT
Flammability rating according to UL 94	V-0
Color	anthracite grey RAL 7016

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## Technical data

### General

Mounting type	DIN rail: 35 mm
Type	DIN rail module, one-piece
Direction of action	Line-Earth Ground

### Protective circuit

IEC test classification	C1
	C2
	C3
	D1
Nominal voltage $U_N$	24 V DC
Maximum continuous voltage $U_C$	36 V DC
	25 V AC
Rated current	350 mA (40° C)
Operating effective current $I_C$ at $U_C$	$\leq 2 \mu\text{A}$
Residual current $I_{PE}$	$\leq 4 \mu\text{A}$
Nominal discharge current $I_n$ (8/20) $\mu\text{s}$ (line-earth)	5 kA
Pulse discharge current $I_{imp}$ (10/350) $\mu\text{s}$ (line-earth)	500 A
	1 kA (in total)
Total discharge current $I_{total}$ (8/20) $\mu\text{s}$	10 kA
	20 kA (1x)
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)	20 kA (in total)
Nominal pulse current $I_{an}$ (10/1000) $\mu\text{s}$ (line-earth)	50 A
	100 A (in total)
Output voltage limitation at 1 kV/ $\mu\text{s}$ (line-earth) spike	$\leq 60 \text{ V}$
Residual voltage at $I_n$ (line-earth)	$\leq 50 \text{ V}$
Residual voltage with $I_{an}$ (10/1000) $\mu\text{s}$ (line-earth)	$\leq 60 \text{ V}$
Voltage protection level $U_p$ (line-earth)	$\leq 60 \text{ V}$ (C1 - 500 V / 250 A)
	$\leq 95 \text{ V}$ (C2 - 10 kV / 5 kA)
	$\leq 55 \text{ V}$ (C3 - 10 A)
	$\leq 55 \text{ V}$ (C3 - 50 A)
	$\leq 250 \text{ V}$ (D1 - 500 A)
Response time $t_A$ (line-earth)	$\leq 1 \text{ ns}$
Input attenuation aE, asym.	typ. 0.3 dB (1 MHz / 50 $\Omega$ )
	typ. 0.2 dB (350 kHz / 150 $\Omega$ )
Cut-off frequency $f_g$ (3 dB), asym. (PE) in 50 Ohm system	typ. 6 MHz
Cut-off frequency $f_g$ (3 dB), asym. (PE) in 150 Ohm system	typ. 2 MHz
Capacity	$\leq 1.3 \text{ nF}$ (per channel)
Resistance in series	3.3 $\Omega$ 20 %
Surge protection fault message	none
Max. required back-up fuse	315 mA (T)

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## Technical data

### Protective circuit

Impulse durability (line-earth)	C1 - 500 V / 250 A
	C2 - 10 kV/5 kA
	C3 - 50 A
	D1 - 500 A
Alternating current carrying capacity (line-earth)	5 A - 1 s

### Connection data

Connection method	Screw connection
Screw thread	M3
Tightening torque	0.8 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> ... 2.5 mm <sup>2</sup>
Conductor cross section AWG	24 ... 14

### Connection, equipotential bonding

Connection method	DIN rail NS35
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### Standards and Regulations

Standards/specifications	IEC 61643-21 A2:2012
	EN 61643-21 2001 + A1:2009 + A2:2013

### Environmental Product Compliance

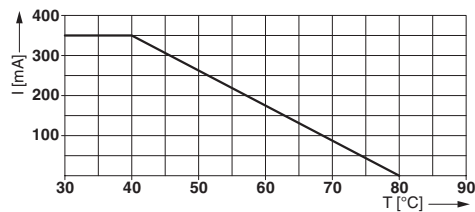
China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

## Drawings

### Pictogram

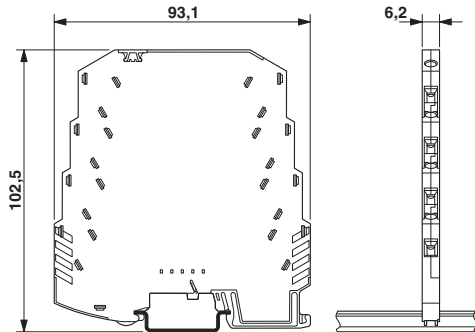


### Diagram

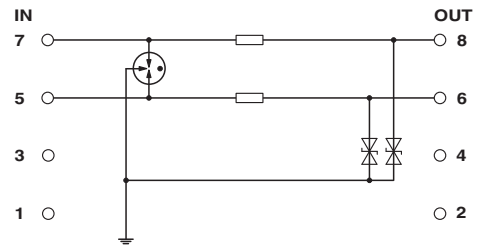


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Dimensional drawing



Circuit diagram



## Approvals

Approvals

Approvals

UL Listed / EAC / EAC / DNV GL

Ex Approvals

## 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			EAC-Zulassung
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EAC			RU C- DE.A*30.B01561
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DNV GL		<a href="http://exchange.dnv.com/tari/">http://exchange.dnv.com/tari/</a>	TAE00001N8
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PHOENIX CONTACT GmbH & Co. KG  
Flachmarktstr. 8  
32825 Blomberg  
Germany  
Tel. +49 5235 300  
Fax +49 5235 3 41200  
<http://www.phoenixcontact.com>