

# LIT 4X1-24 - Surge protection device



2804649

<https://www.phoenixcontact.com/us/products/2804649>

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 documentation. Our general terms of use for downloads are valid.



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

## Your advantages

- Space saving with a narrow overall width of just 6 mm
- Cost-optimized with tailored product features
- Universal use with extended nominal voltage range

## Commercial data

Item number	2804649
Packing unit	10 pc
Minimum order quantity	1 pc
Sales key	CL02
Product key	CL2211
GTIN	4046356428286
Weight per piece (including packing)	66.3 g
Weight per piece (excluding packing)	63.74 g
Customs tariff number	85363010
Country of origin	DE

# LIT 4X1-24 - Surge protection device

2804649

<https://www.phoenixcontact.com/us/products/2804649>

## Technical data

### Product properties

Product type	Surge protection for MCR technology
Product family	LINETRAB
IEC test classification	C1
	C2
	C3
	D1
Type	DIN rail module, one-piece
Surge protection fault message	none

### Insulation characteristics

Overvoltage category	III
Pollution degree	2

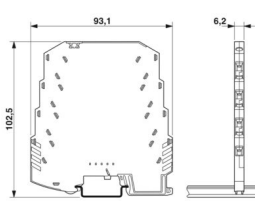
### Electrical properties

Nominal voltage $U_N$	24 V DC
-----------------------	---------

### Connection data

Connection method	Screw connection
Screw thread	M3
Tightening torque	0.8 Nm
Conductor cross-section flexible	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross-section rigid	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross-section AWG	24 ... 14

### Dimensions

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

### Material specifications

Color	anthracite gray (RAL 7016)
Flammability rating according to UL 94	V-0
Insulating material	PBT
Housing material	PBT

# LIT 4X1-24 - Surge protection device

2804649

<https://www.phoenixcontact.com/us/products/2804649>



## Mechanical properties

### Mechanical data

Open side panel	No
-----------------	----

### Protective circuit

Direction of action	Line-Earth Ground
Nominal voltage $U_N$	24 V DC
Maximum continuous operating voltage $U_C$	36 V DC 25 V AC
Rated current	350 mA (40 °C)
Operating effective current $I_C$ at $U_C$	$\leq 2 \mu\text{A}$
Protective conductor current $I_{PE}$	$\leq 8 \mu\text{A}$
Nominal discharge current $I_n$ (8/20) $\mu\text{s}$ (line-ground)	5 kA
Pulse discharge current $I_{imp}$ (10/350) $\mu\text{s}$ (line-earth)	500 A 2 kA (in total)
Total discharge current $I_{Total}$ (8/20) $\mu\text{s}$	20 kA
Max. discharge current $I_{max}$ (8/20) $\mu\text{s}$ maximum (line-earth)	10 kA 20 kA (in total)
Nominal pulse current $I_{an}$ (10/1000) $\mu\text{s}$ (line-earth)	50 A 200 A (in total)
Output voltage limitation at 1 kV/ $\mu\text{s}$ (line-earth) spike	$\leq 60 \text{ V}$
Residual voltage at $I_n$ (conductor-ground)	$\leq 50 \text{ V}$
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 $\Omega$ system	typ. 6 MHz
Cut-off frequency $f_g$ (3 dB), asym. (PE) in 150 $\Omega$ system	typ. 2 MHz
Capacity	$\leq 1.3 \text{ nF}$ (per channel)
Resistance per path	3.3 $\Omega \pm 20 \%$
Surge protection fault message	none
Max. required back-up fuse	315 mA (T)
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

# LIT 4X1-24 - Surge protection device



2804649

<https://www.phoenixcontact.com/us/products/2804649>

## Environmental and real-life conditions

### Ambient conditions

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

## Standards and regulations

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

## Mounting

Mounting type	DIN rail: 35 mm
---------------	-----------------

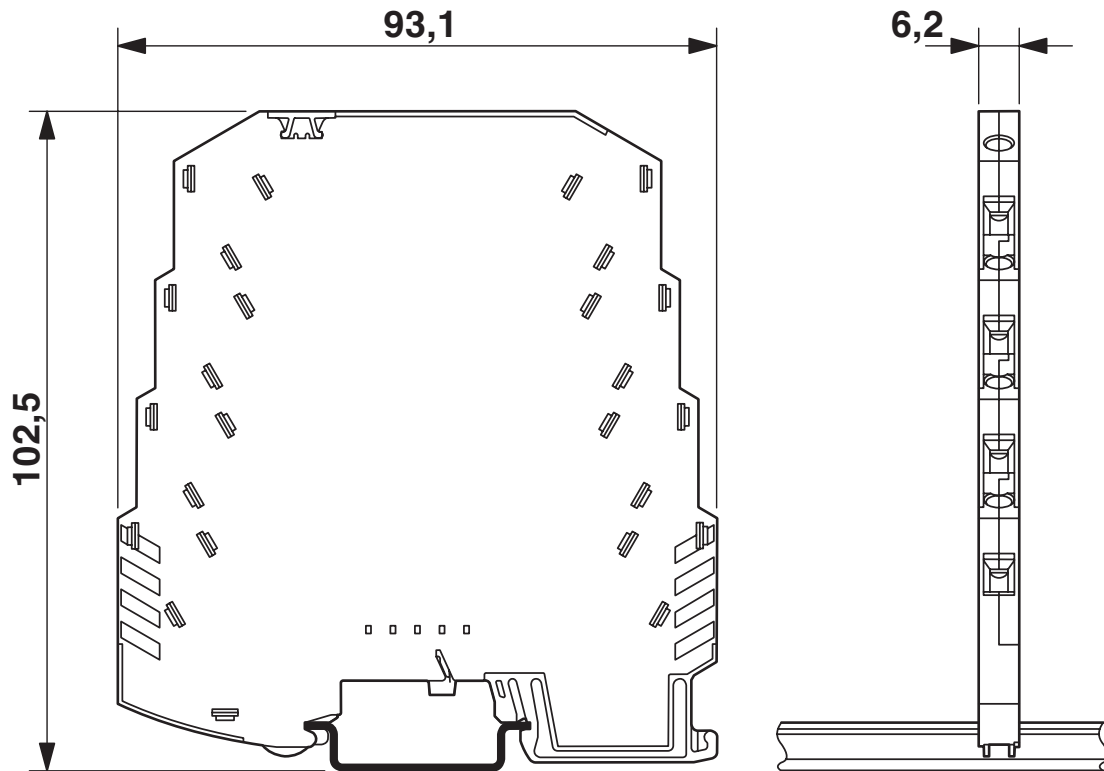
# LIT 4X1-24 - Surge protection device

2804649

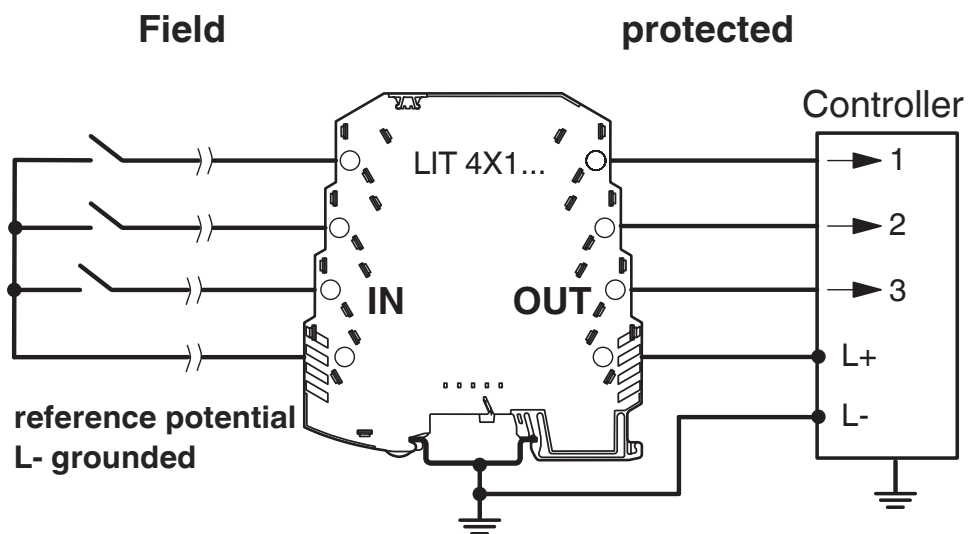
<https://www.phoenixcontact.com/us/products/2804649>

## Drawings

Dimensional drawing



Application drawing



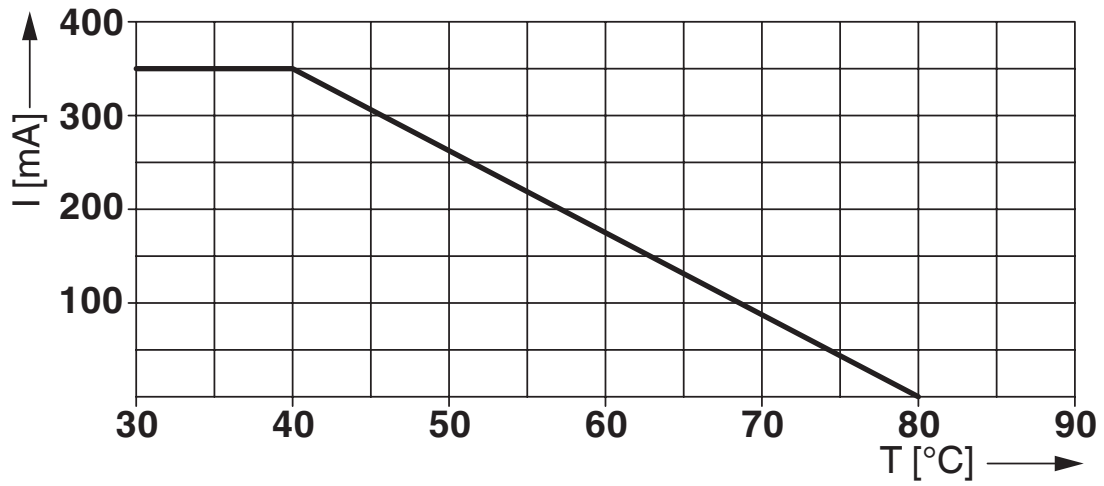
# LIT 4X1-24 - Surge protection device



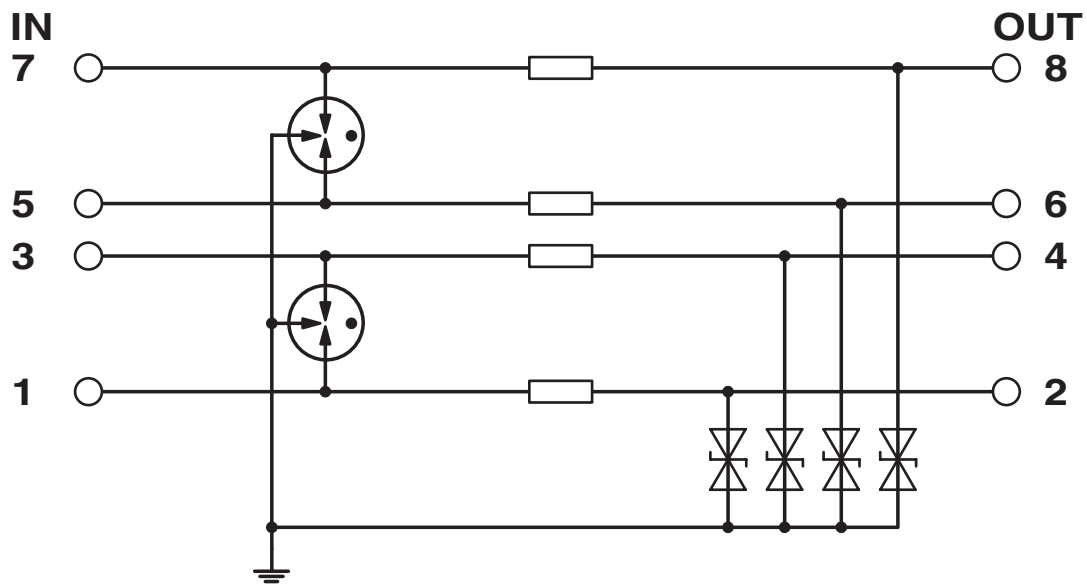
2804649

<https://www.phoenixcontact.com/us/products/2804649>

Diagram



Circuit diagram




# LIT 4X1-24 - Surge protection device



2804649

<https://www.phoenixcontact.com/us/products/2804649>

## Approvals

 To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2804649>



**DNV GL**

Approval ID: TAE00001N8



**UL Listed**

Approval ID: FILE E 138168

# LIT 4X1-24 - Surge protection device



2804649

<https://www.phoenixcontact.com/us/products/2804649>

## Classifications

### ECLASS

ECLASS-13.0	27171501
ECLASS-15.0	27171501

### ETIM

ETIM 10.0	EC001466
-----------	----------

### UNSPSC

UNSPSC 21.0	39121600
-------------	----------

# LIT 4X1-24 - Surge protection device



2804649

<https://www.phoenixcontact.com/us/products/2804649>

## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	7(a), 7(c)-I

### China RoHS

Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

### EU REACH SVHC

REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
SCIP	08314f8b-dee6-4342-a061-937fc7633d86

Phoenix Contact 2026 © - all rights reserved

<https://www.phoenixcontact.com>

Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)