

# LIT 4-24 - Surge protection device

2804678

<https://www.phoenixcontact.com/us/products/2804678>

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 floating signal wires.



## Your advantages

- Space saving with a narrow overall width of just 6 mm
- Install quickly and error-free with DIN rail connectors
- No signal interference with reliable attenuation

## Commercial data

Item number	2804678
Packing unit	10 pc
Minimum order quantity	1 pc
Sales key	CL02
Product key	CL2211
GTIN	4046356428293
Weight per piece (including packing)	74.55 g
Weight per piece (excluding packing)	74.55 g
Customs tariff number	85363010
Country of origin	DE

# LIT 4-24 - Surge protection device

2804678

<https://www.phoenixcontact.com/us/products/2804678>

## 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

### Insulation characteristics

Overvoltage category	III
Pollution degree	2

### Electrical properties

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

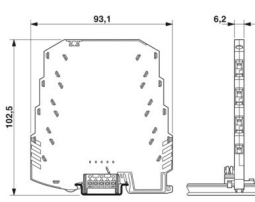
### Connection data

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

### Ex data

Maximum inner capacitance $C_i$	typ. 2.5 nF
Max. internal inductance $L_i$	< 1 $\mu$ H
Max. input current $I_i$	500 mA ( $T_4 / \leq 80^\circ\text{C}$ )
	500 mA ( $T_5 / \leq 50^\circ\text{C}$ )
	500 mA ( $T_6 / \leq 40^\circ\text{C}$ )
Max. input voltage $U_i$	36 V DC
max. input power $P_i$	550.00 mW
Maximum inner time factor ( $R_i/L_i$ )	10 $\mu$ s

### Dimensions

Dimensional drawing	
Width	6.2 mm

# LIT 4-24 - Surge protection device



2804678

<https://www.phoenixcontact.com/us/products/2804678>

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

## Mechanical properties

### Mechanical data

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

## Protective circuit

Direction of action	Line-Line & Line-Earth Ground
Nominal voltage $U_N$	24 V DC
Maximum continuous operating voltage $U_C$	36 V DC
	25 V AC
Rated current	500 mA (40 °C)
Operating effective current $I_C$ at $U_C$	$\leq 2 \mu A$
Protective conductor current $I_{PE}$	$\leq 4 \mu A$
Nominal discharge current $I_n$ (8/20) $\mu s$ (line-line)	250 A
Nominal discharge current $I_n$ (8/20) $\mu s$ (line-ground)	5 kA
Pulse discharge current $I_{imp}$ (10/350) $\mu s$ (line-earth)	500 A
	2 kA (in total)
Total discharge current $I_{Total}$ (8/20) $\mu s$	20 kA
Max. discharge current $I_{max}$ (8/20) $\mu s$ maximum (line-line)	250 A
Max. discharge current $I_{max}$ (8/20) $\mu s$ maximum (line-earth)	10 kA
	20 kA (in total)
Nominal pulse current $I_{an}$ (10/1000) $\mu s$ (line-line)	50 A
Nominal pulse current $I_{an}$ (10/1000) $\mu s$ (line-earth)	50 A
	200 A (in total)
Output voltage limitation at 1 kV/ $\mu s$ (line-line) spike	$\leq 60 V$
Output voltage limitation at 1 kV/ $\mu s$ (line-earth) spike	$\leq 650 V$
Residual voltage at $I_n$ (conductor-conductor)	$\leq 60 V$
Residual voltage with $I_{an}$ (10/1000) $\mu s$ (line-line)	$\leq 60 V$
Voltage protection level $U_p$ (line-line)	$\leq 60 V$ (C1 - 500 V / 250 A)
	$\leq 55 V$ (C3 - 10 A)
	$\leq 55 V$ (C3 - 50 A)
Voltage protection level $U_p$ (line-earth)	$\leq 650 V$ (C1 - 500 V / 250 A)
	$\leq 650 V$ (C2 - 10 kV / 5 kA)
	$\leq 650 V$ (C3 - 10 A)
	$\leq 700 V$ (C3 - 50 A)
	$\leq 700 V$ (D1 - 500 A)

# LIT 4-24 - Surge protection device



2804678

<https://www.phoenixcontact.com/us/products/2804678>

Response time $t_A$ (line-line)	$\leq 1$ ns
Response time $t_A$ (line-earth)	$\leq 100$ ns
Input attenuation aE, sym.	typ. 0.3 dB (2.4 MHz/50 $\Omega$ )
	typ. 0.3 dB (700 kHz / 150 $\Omega$ )
Cut-off frequency $f_g$ (3 dB), sym. in 50 $\Omega$ system	typ. 7.7 MHz
Cut-off frequency $f_g$ (3 dB), sym. in 150 $\Omega$ system	typ. 2.5 MHz
Capacity	$\leq 1.3$ nF (per path)
Resistance per path	0 $\Omega$
Surge protection fault message	none
Max. required back-up fuse	500 mA (T)
Impulse durability (line-line)	C1 - 500 V / 250 A
	C3 - 50 A
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

## 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	$\leq 2000$ m (amsl)

## Approvals

### Conformity/Approvals

ATEX	Ⓜ II 1 G Ex ia IIC T4...T6
	Ⓜ II 1 D Ex iaD 20 T85 °C...135 °C
IECEX	Ga Ex ia IIC T4...T6
	Ex iaD 20 T85 °C...T135 °C

## Standards and regulations

Standards/specifications	EN 61643-21
Note	A2:2013
Standards/specifications	EN 60079-0
Note	2018
Standards/specifications	EN 60079-11
Note	2012
Standards/specifications	IEC 60079-0
Note	2017
Standards/specifications	IEC 60079-11
Note	2011

# LIT 4-24 - Surge protection device



2804678

<https://www.phoenixcontact.com/us/products/2804678>

Standards/specifications	GB/T 3836.1
Note	2021
Standards/specifications	GB/T 3836.4
Note	2021

## Mounting

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

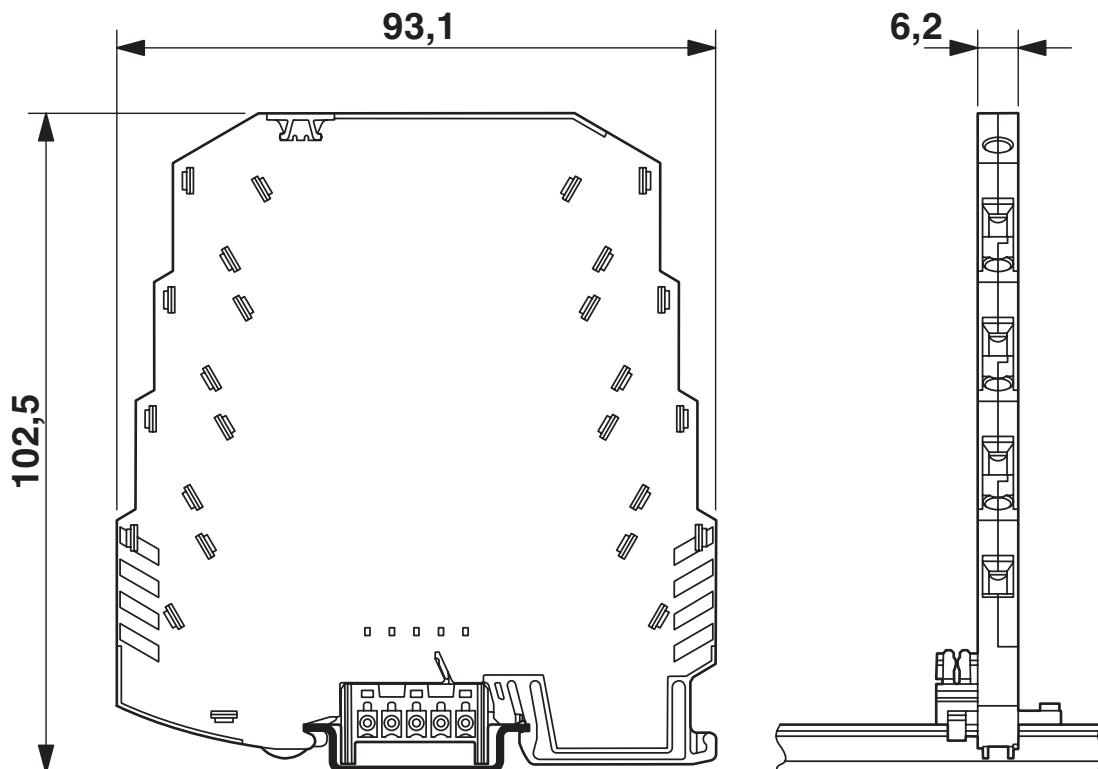
# LIT 4-24 - Surge protection device

2804678

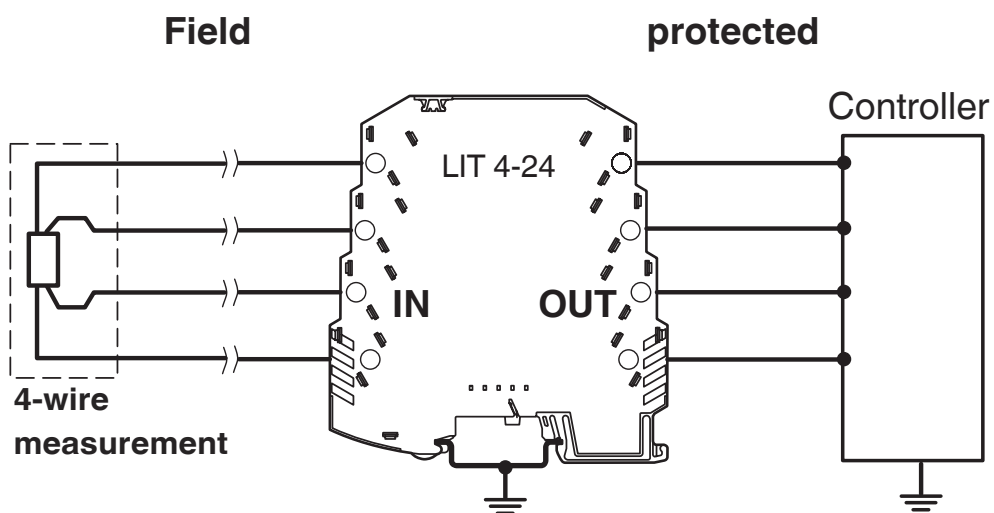
<https://www.phoenixcontact.com/us/products/2804678>

## Drawings

Dimensional drawing



Application drawing

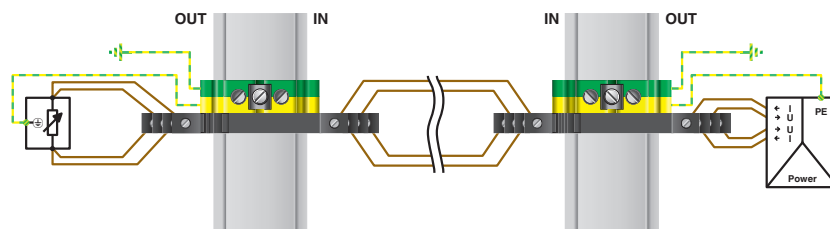


# LIT 4-24 - Surge protection device

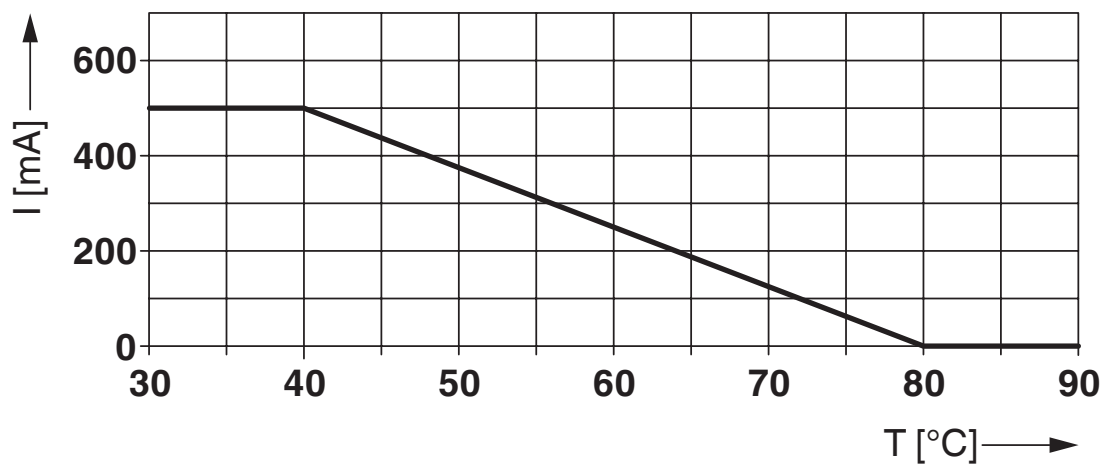
2804678

<https://www.phoenixcontact.com/us/products/2804678>

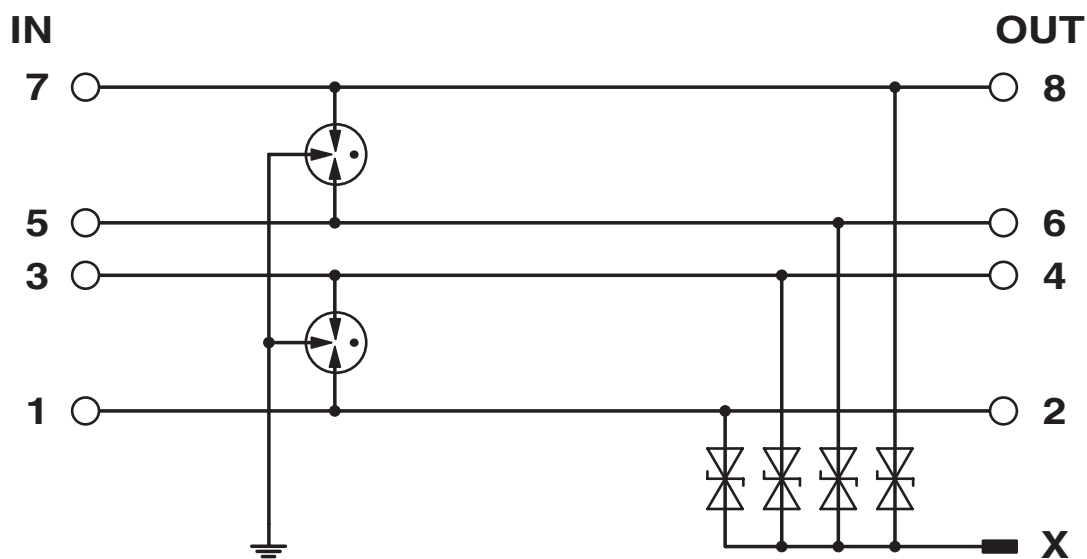
Application drawing



Diagram



Circuit diagram



# LIT 4-24 - Surge protection device



2804678

<https://www.phoenixcontact.com/us/products/2804678>

## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2804678>



**DNV GL**

Approval ID: TAE00001N8



**UL Listed**

Approval ID: FILE E 138168

**UAE-RoHS**

Approval ID: 23-10-88889



**ATEX**

Approval ID: KEMA 09ATEX0051 X



**IECEx**

Approval ID: IECEx KEM 09.0018X



**CCC**

Approval ID: 2025322304006665



**NEPSI-EX**

Approval ID: GYJ20.1176X



**UKCA-EX**

Approval ID: DEKRA 21UKEX0233 X



**CCC**

Approval ID: 2025322304006665

# LIT 4-24 - Surge protection device



2804678

<https://www.phoenixcontact.com/us/products/2804678>

## Classifications

### ECLASS

ECLASS-13.0	27171501
ECLASS-15.0	27171501

### ETIM

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

### UNSPSC

UNSPSC 21.0	39121620
-------------	----------

# LIT 4-24 - Surge protection device



2804678

<https://www.phoenixcontact.com/us/products/2804678>

## 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	7a56d4d5-36a5-4c8a-adc5-142dc86c3ce8

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)