

LIT 4-12 - Surge protection device

2804704

<https://www.phoenixcontact.com/us/products/2804704>

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	2804704
Packing unit	10 pc
Minimum order quantity	1 pc
Sales key	CL02
Product key	CL2211
GTIN	4046356462204
Weight per piece (including packing)	74.85 g
Weight per piece (excluding packing)	61.87 g
Customs tariff number	85363010
Country of origin	DE

LIT 4-12 - Surge protection device

2804704

<https://www.phoenixcontact.com/us/products/2804704>

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	12 V DC
-----------------------	---------

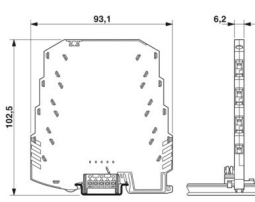
Connection data

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

Ex data

Maximum inner capacitance C_i	typ. 6 nF
Max. internal inductance L_i	< 1 μ 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	18 V DC
max. input power P_i	550.00 mW
Maximum inner time factor (R_i/L_i)	10 μ s

Dimensions

Dimensional drawing	
Width	6.2 mm

LIT 4-12 - Surge protection device



2804704

<https://www.phoenixcontact.com/us/products/2804704>

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	12 V DC
Maximum continuous operating voltage U_C	18 V DC
	13 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) μs (line-line)	350 A
Nominal discharge current I_n (8/20) μs (line-ground)	5 kA
Pulse discharge current I_{imp} (10/350) μs (line-earth)	500 A
	2 kA (in total)
Total discharge current I_{Total} (8/20) μs	20 kA
Max. discharge current I_{max} (8/20) μs maximum (line-line)	350 A
Max. discharge current I_{max} (8/20) μs maximum (line-earth)	10 kA
	20 kA (in total)
Nominal pulse current I_{an} (10/1000) μs (line-line)	70 A
Nominal pulse current I_{an} (10/1000) μs (line-earth)	50 A
	200 A (in total)
Output voltage limitation at 1 kV/ μs (line-line) spike	$\leq 50 V$
Output voltage limitation at 1 kV/ μs (line-earth) spike	$\leq 650 V$
Residual voltage at I_n (conductor-conductor)	$\leq 50 V$
Residual voltage with I_{an} (10/1000) μs (line-line)	$\leq 50 V$
Voltage protection level U_p (line-line)	$\leq 50 V$ (C1 - 500 V / 250 A)
	$\leq 35 V$ (C3 - 10 A)
	$\leq 40 V$ (C3 - 70 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 4-12 - Surge protection device



2804704

<https://www.phoenixcontact.com/us/products/2804704>

Response time t_A (line-line)	≤ 1 ns
Response time t_A (line-earth)	≤ 100 ns
Input attenuation aE, sym.	typ. 0.3 dB (1.5 MHz/50 Ω)
	typ. 0.3 dB (500 kHz / 150 Ω)
Cut-off frequency f_g (3 dB), sym. in 50 Ω system	typ. 5 MHz
Cut-off frequency f_g (3 dB), sym. in 150 Ω system	typ. 1.7 MHz
Capacity	≤ 1.5 nF (per path)
Resistance per path	0 Ω
Surge protection fault message	none
Max. required back-up fuse	500 mA (T)
Impulse durability (line-line)	C1 - 500 V / 250 A
	C3 - 70 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	≤ 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 4-12 - Surge protection device



2804704

<https://www.phoenixcontact.com/us/products/2804704>

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

Mounting

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

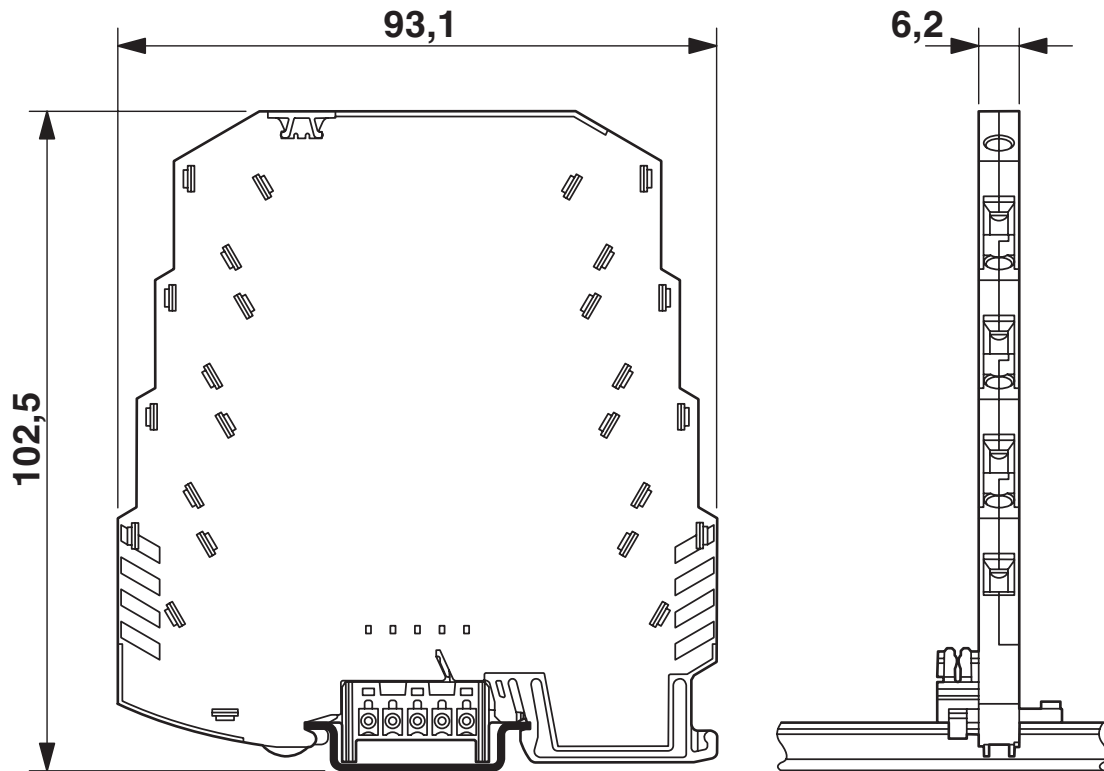
LIT 4-12 - Surge protection device

2804704

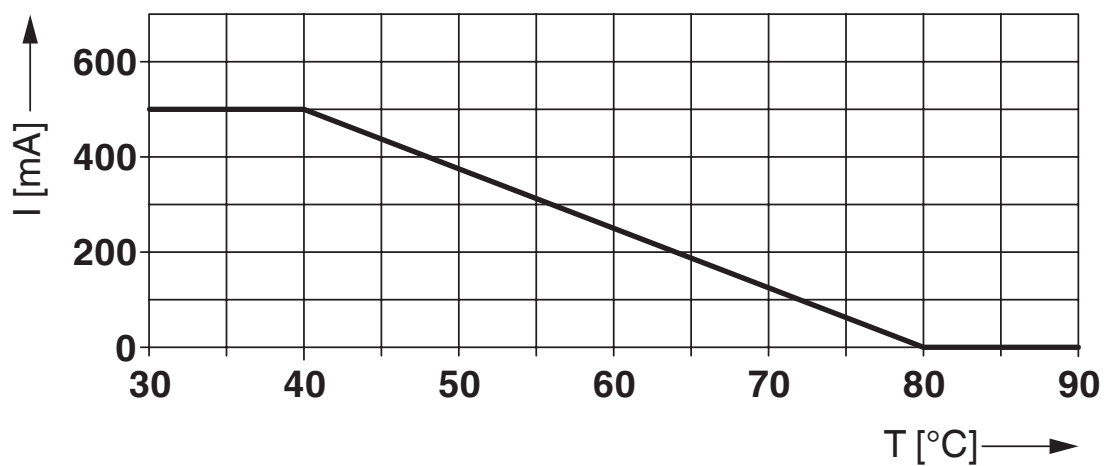
<https://www.phoenixcontact.com/us/products/2804704>

Drawings

Dimensional drawing



Diagram



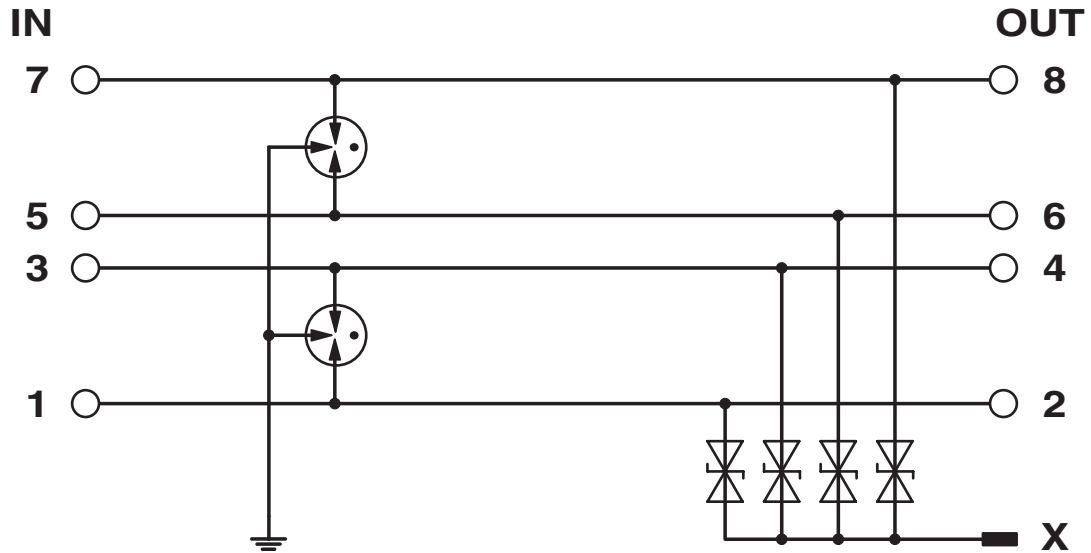
LIT 4-12 - Surge protection device



2804704

<https://www.phoenixcontact.com/us/products/2804704>

Circuit diagram



LIT 4-12 - Surge protection device



2804704

<https://www.phoenixcontact.com/us/products/2804704>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2804704>



DNV GL

Approval ID: TAE00001N8



UL Listed

Approval ID: FILE E 138168



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 4-12 - Surge protection device



2804704

<https://www.phoenixcontact.com/us/products/2804704>

Classifications

ECLASS

ECLASS-13.0	27171501
ECLASS-15.0	27171501

ETIM

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

UNSPSC

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

LIT 4-12 - Surge protection device



2804704

<https://www.phoenixcontact.com/us/products/2804704>

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	79c649dd-a1ca-4325-acee-3e29d00d2651

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