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.

Your advantages

- 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 pc
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	≤ 2 µA
Residual current I_{PE}	≤ 4 µA
Nominal discharge current I_n (8/20) µs (line-earth)	5 kA
Pulse discharge current I_{imp} (10/350) µs (line-earth)	500 A
	1 kA (in total)
Total discharge current I_{total} (8/20) µs	10 kA
	20 kA (1x)
Max. discharge current I_{max} (8/20) µs maximum (line-line)	10 kA
Max. discharge current I_{max} (8/20) µs maximum (line-earth)	20 kA (in total)
Nominal pulse current Ian (10/1000) µs (line-earth)	50 A
	100 A (in total)
Output voltage limitation at 1 kV/µs (line-earth) spike	≤ 60 V
Residual voltage at I_n (line-earth)	≤ 50 V
Residual voltage with Ian (10/1000) µs (line-earth)	≤ 60 V
Voltage protection level U_p (line-earth)	≤ 60 V (C1 - 500 V / 250 A)
	≤ 95 V (C2 - 10 kV / 5 kA)
	≤ 55 V (C3 - 10 A)
	≤ 55 V (C3 - 50 A)
	≤ 250 V (D1 - 500 A)
Response time t_A (line-earth)	≤ 1 ns
Input attenuation aE, asym.	typ. 0.3 dB (1 MHz / 50 Ω)
	typ. 0.2 dB (350 kHz / 150 Ω)
Cut-off frequency fg (3 dB), asym. (PE) in 50 Ohm system	typ. 6 MHz
Cut-off frequency fg (3 dB), asym. (PE) in 150 Ohm system	typ. 2 MHz
Capacity	≤ 1.3 nF (per channel)
Resistance in series	3.3 Ω 20 %
Surge protection fault message	none
Max. required back-up fuse	315 mA (T)

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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 mm² ... 2.5 mm²
Conductor cross section solid	0.2 mm² ... 2.5 mm²
Conductor cross section AWG	24 ... 14

Connection, equipotential bonding

Connection method	DIN rail NS35

Standards and Regulations

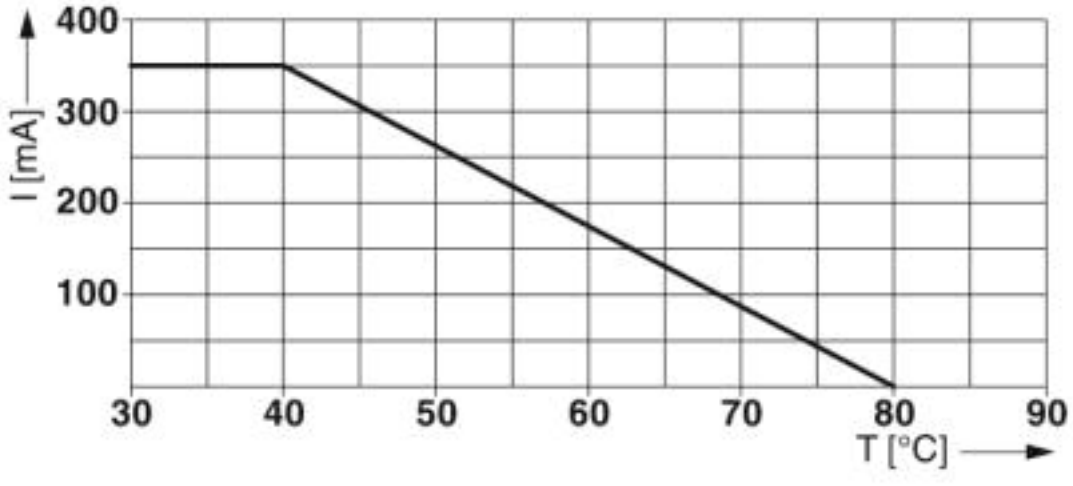
Standards/specifications	IEC 61643-21 A2:2012
	EN 61643-21 2001 + A1:2009 + A2:2013

Environmental Product Compliance

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

Drawings

Diagram



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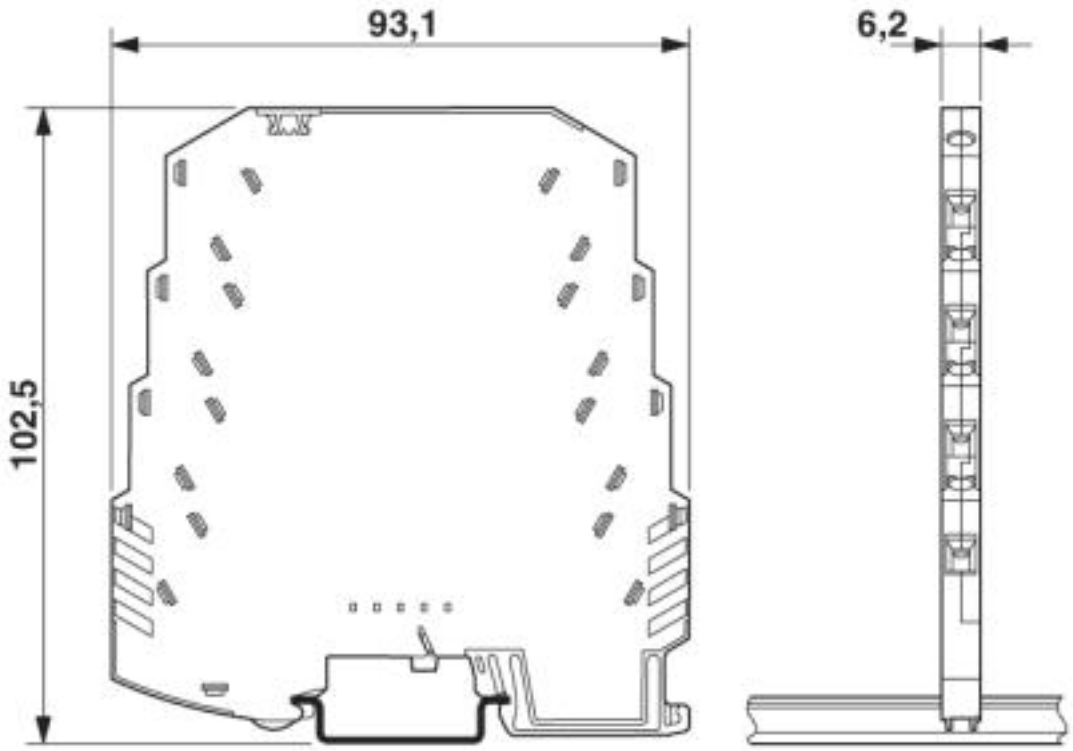
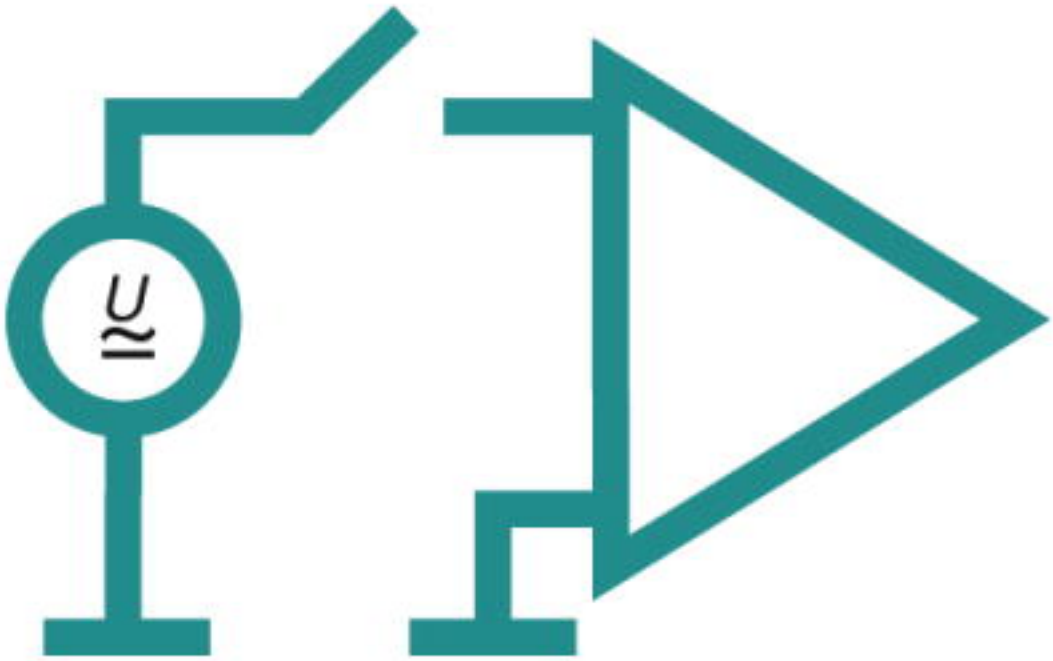
Dimensional drawing



Pictogram



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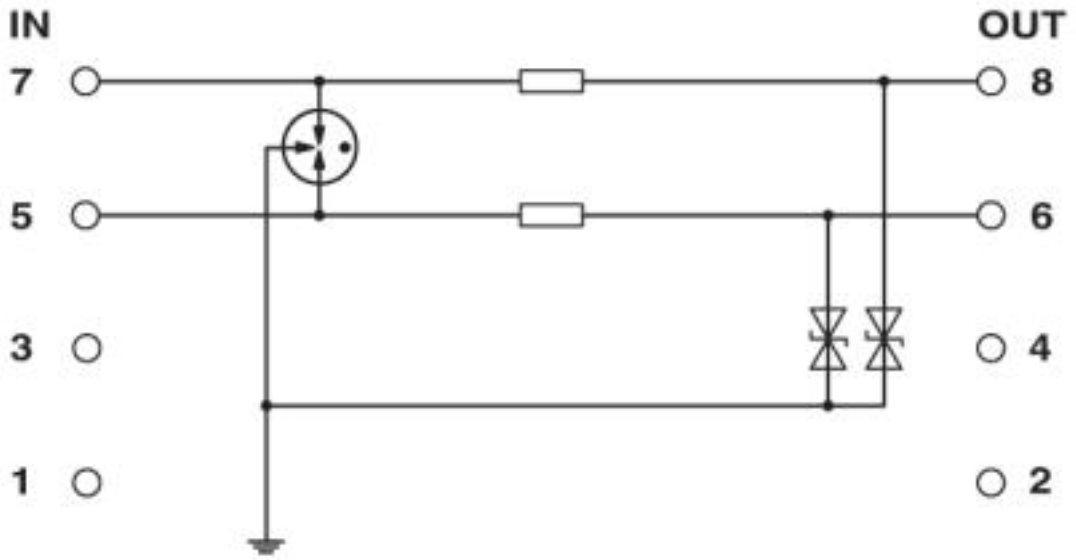
Circuit diagram



Approvals

Approvals

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DNV GL / UL Listed / EAC / EAC

Ex Approvals

Approval details

DNV GL		https://approvalfinder.dnvgl.com/	TAE00001N8
UL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 138168
EAC			EAC-Zulassung

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Approvals

EAC	EAC	RU C-DE.A*30.B01561

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