

Surge protection device - LIT 2X2-24 - 2804623

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Surge protection in the one-piece 6.2 mm DIN rail module for two floating signal circuits in 2-wire technology. Tested according to the protection types in Ex areas Ex ia IIC/Ex iaD. HART-compatible.

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 428309
GTIN	4046356428309
Weight per Piece (excluding packing)	63.000 g
Custom tariff number	85363010
Country of origin	Germany

Technical data

Dimensions

Height	93.1 mm
	93.1 mm
Width	6.2 mm
Depth	102.5 mm

Ambient conditions

Ambient temperature (operation)	-40 °C ... 80 °C
Ambient temperature (storage/transport)	-40 °C ... 80 °C
Degree of protection	IP20

General

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Technical data

General

Housing material	PBT
Flammability rating according to UL 94	V-0
Color	anthracite grey RAL 7016
Mounting type	DIN rail: 35 mm
Design	Rail-mountable module, one-piece
Direction of action	Line-Line & 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	$\leq 2 \mu A$
Residual current I_{PE}	$\leq 4 \mu A$
Nominal discharge current I_n (8/20) μs (Core-Core)	5 kA
Nominal discharge current I_n (8/20) μs (core-earth)	5 kA
Pulse discharge current I_{imp} (10/350) μs (core-ground)	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 (Core-Core)	10 kA
Max. discharge current I_{max} (8/20) μs maximum (Core-Earth)	10 kA
	20 kA (in total)
Nominal pulse current I_{an} (10/1000) μs (Core-Core)	50 A
Nominal pulse current I_{an} (10/1000) μs (Core-Earth)	50 A
	200 A (in total)
Output voltage limitation at 1 kV/ μs (core-core) spike	$\leq 60 V$
Output voltage limitation at 1 kV/ μs (core-earth) spike	$\leq 650 V$
Residual voltage at I_n (conductor-conductor)	$\leq 70 V$
Residual voltage with I_{an} (10/1000) μs (conductor-conductor)	$\leq 50 V$
Voltage protection level U_p (core-core)	$\leq 70 V$ (C2 - 10 kV / 5 kA)
	$\leq 50 V$ (C3 - 10 A)
	$\leq 80 V$ (D1 - 500 A)
Voltage protection level U_p (core-ground)	$\leq 650 V$ (C1 - 500 V / 250 A)
	$\leq 700 V$ (C2 - 10 kV / 5 kA)
	$\leq 700 V$ (D1 - 500 A)
Response time t_A (core-core)	$\leq 1 ns$

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Protective circuit

Response time t_A (core-earth)	≤ 100 ns
Input attenuation a_E , sym.	typ. 0.7 dB (1 MHz / 50 Ω)
	typ. 0.3 dB (350 kHz / 150 Ω)
Cut-off frequency f_g (3 dB), sym. in 50 Ohm system	typ. 6 MHz
Cut-off frequency f_g (3 dB), sym. in 150 Ohm system	typ. 2 MHz
Capacity	≤ 1.3 nF (per channel)
Resistance in series	3.3 $\Omega \pm 20$ %
Surge protection fault message	None
Max. required back-up fuse	315 mA (e.g. T in acc. with IEC 127-2/III)
Impulse durability (conductor-conductor)	C2 - 10 kV/5 kA
	C3 - 10 A
	C3 - 25 A
	D1 - 500 A
Impulse durability (conductor-ground)	C1 - 500 V / 250 A
	C2 - 10 kV/5 kA
	D1 - 500 A
Alternating current carrying capacity (conductor-ground)	5 A - 1 s

Connection data

Connection method	Screw connection
Connection method IN	Screw terminal blocks
Connection method OUT	Screw terminal blocks
Screw thread	M3
Tightening torque	0.8 Nm
Stripping length	8 mm
Conductor cross section flexible	0.2 mm ² ... 2.5 mm ²
Conductor cross section solid	0.2 mm ² ... 2.5 mm ²
Conductor cross section AWG	24 ... 14

Connection, equipotential bonding

Connection method	DIN rail NS35
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Standards and Regulations

Standards/specifications	EN 61643-21 A2:2013
	EN 60079-0 2012
	EN 60079-11 2012
	EN 60079-26 2007
	IEC 60079-0 2011
	IEC 60079-11 2011
	IEC 60079-26 2006

Environmental Product Compliance

China RoHS	Environmentally Friendly Use Period = 50
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Environmental Product Compliance

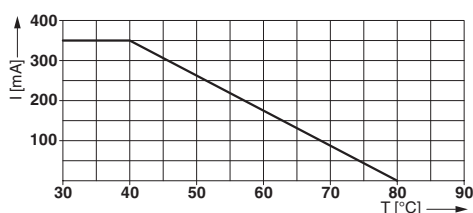
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"
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Drawings

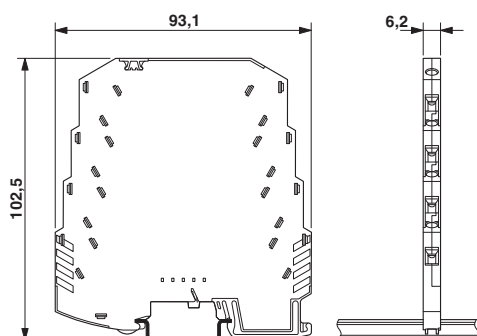
Pictogram



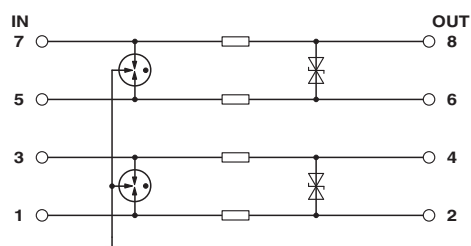
Diagram



Dimensional drawing



Circuit diagram



Classifications

eCl@ss

eCl@ss 4.0	27140201
eCl@ss 4.1	27130801
eCl@ss 5.0	27130801
eCl@ss 5.1	27130801
eCl@ss 6.0	27130807
eCl@ss 7.0	27130807
eCl@ss 8.0	27130807
eCl@ss 9.0	27130807

ETIM

ETIM 2.0	EC000943
ETIM 3.0	EC000943
ETIM 4.0	EC000943
ETIM 5.0	EC000943
ETIM 6.0	EC000943

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Classifications

UNSPSC

UNSPSC 6.01	30212010
UNSPSC 7.0901	39121610
UNSPSC 11	39121610
UNSPSC 12.01	39121610
UNSPSC 13.2	39121620

Approvals

Approvals

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UL Listed / EAC / EAC / DNV GL

Ex Approvals

IECEX / ATEX / INMETRO

Approval details

UL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	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	http://exchange.dnv.com/tari/	TAE00001N8
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