

LIT 1X2-24

Order No.: 2804610




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



Commercial data

GTIN (EAN)	 4 046356 428330
sales group	J342
Pack	10 pcs.
Customs tariff	85363010
Catalog page information	Page 96 (TT-2009)

Product notes

WEEE/RoHS-compliant since:
06/24/2008



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Technical data

General

Housing material	PBT
Inflammability class acc. to UL 94	V0
Color	black

Standards for air and creepage distances	IEC 60664-1
	EN 60079-11
Total surge current (8/20) μ s	20 kA
Total surge current (10/350) μ s	1 kA
Ambient temperature (operation)	-40 °C ... 80 °C
Ambient temperature (storage/transport)	-40 °C ... 80 °C
Mounting type	DIN rail: 35 mm
Design	Rail-mountable module, one-piece
Degree of protection	IP20
Direction of action	Line-Line & Line-Earth Ground
Width	6.20 mm
Height	102.50 mm
Length	93.00 mm

Protective circuit

IEC category	C1
	C2
	C3
	D1
Nominal voltage U_N	24 V DC
Maximum continuous operating voltage U_C	25 V AC
	36 V DC
Nominal current I_N	350 mA (40°C)
Operating effective current I_C at U_C	$\leq 2 \mu$ A
Ground conductor current I_{PE}	$\leq 2 \mu$ A
Nominal discharge surge current I_n (8/20) μ s (Core-Core)	5 kA
Nominal discharge surge current I_n (8/20) μ s (Core-Earth)	5 kA
	10 kA (Total)
Total surge current (8/20) μ s	20 kA
Max. discharge surge current I_{max} (8/20) μ s maximum (Core-Core)	10 kA
Max. discharge surge current I_{max} (8/20) μ s maximum (Core-Earth)	10 kA
	20 kA (Total)
Nominal pulse current I_{an} (10/1000) μ s (Core-Core)	50 A

Nominal pulse current I_{an} (10/1000) μ s (Core-Earth)	50 A
	100 A (Total)
Lightning test current (10/350) μ s, peak value I_{imp}	500 A
Output voltage limitation at 1 kV/ μ s (Core-Core) spike	≤ 60 V
Output voltage limitation at 1 kV/ μ s (Core-Earth) spike	≤ 650 V
Residual voltage at I_n , (conductor-conductor)	≤ 70 V
Residual voltage with I_{an} (10/1000) μ s (conductor-conductor)	≤ 50 V
Protection level U_p (Core-Core)	≤ 70 V (C2 - 10 kV / 5 kA)
	≤ 50 V (C3 - 10 A)
	≤ 80 V (D1 - 500 A)
Protection level U_p (Core-Earth)	≤ 650 V (C1 - 500 V / 250 A)
	≤ 700 V (C2 - 10 kV / 5 kA)
	≤ 700 V (D1 - 500 A)
Response time t_A (Core-Core)	≤ 1 ns
Response time t_A (Core-Earth)	≤ 100 ns
Input attenuation aE, 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 Ω 20 %
Max. required back-up fuse	315 mA
Surge carrying capacity in acc. with IEC 61643-21 (Core-Core)	C2 (10 kV/5 kA)
	C3 (25 A)
Surge carrying capacity in acc. with IEC 61643-21 (Core-Earth)	C2 (10 kV/5 kA)
	C3 (25 A)
	D1 (500 A)
Alternating current carrying capacity in acc. with IEC 61643-21 (Core-Earth)	5 A - 1 s

Connection data

Connection method	Screw connection
Connection type IN	Screw terminal blocks
Connection type OUT	Screw terminal blocks
Screw thread	M3
Conductor cross section stranded min.	0.2 mm ²
Conductor cross section stranded max.	2.5 mm ²
Conductor cross section solid min.	0.14 mm ²
Conductor cross section solid max.	2.5 mm ²
Conductor cross section AWG/kcmil min.	26
Conductor cross section AWG/kcmil max	12

Connection, equipotential bonding

Connection method	DIN rail NS35
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Connection, protective circuit

Standards/regulations	IEC 61643-21
	DIN EN 61643-21

Certificates / Approvals

Certification	UL Listed
Certification Ex:	IECEX, KEMA-EX

Accessories

Item	Designation	Description
Cable/conductor		
2900154	VIP-CAB-FLK16/FR/FR/0,14/0,5M	Assembled round cable with two molded 16-pos. socket strips (1:1 connection) . The cable has 90° connectors on both sides for connecting MINI-Analog and TRABTECH LINETRAB LIT; cable length: 0.5 m

2900155	VIP-CAB-FLK16/FR/FR/0,14/1,0M	Assembled round cable with two molded 16-pos. socket strips (1:1 connection) . The cable has 90° connectors on both sides for connecting MINI-Analog and TRABTECH LINETRAB LIT; cable length: 1 m
2900156	VIP-CAB-FLK16/FR/FR/0,14/2,0M	Assembled round cable with two molded 16-pos. socket strips (1:1 connection) . The cable has 90° connectors on both sides for connecting MINI-Analog and TRABTECH LINETRAB LIT; cable length: 2 m

General

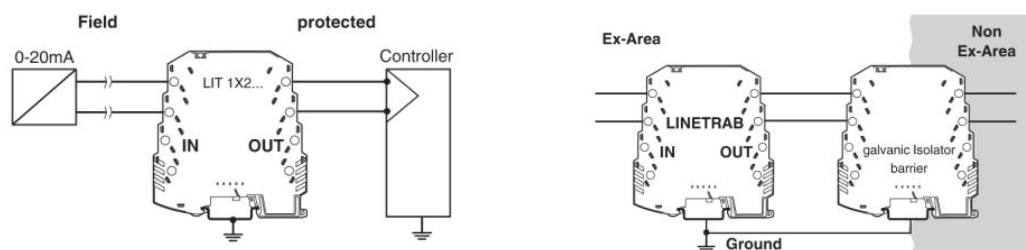
2811268	MINI MCR-SL-V8-FLK 16-A	Eight MINI analog signal converters with screw connection method can be connected to a control system using a system adapter and system cabling with a minimum of wiring and very low error risk.
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Marking

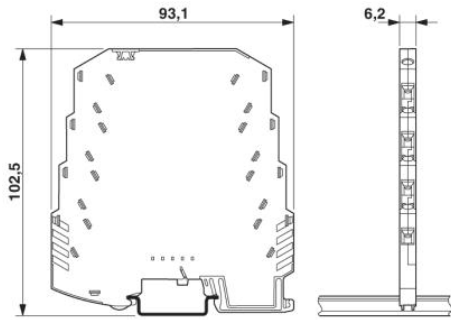
0818085	UC-TM 6	UniCard materials for labeling terminal blocks with a marker groove,80-section, can be labeled with BLUEMARK X1 and CMS-P1-PLOTTER, color: white
0818344	UC-TM 6 BU	UniCard materials for labeling terminal blocks with a marker groove,80-section, can be labeled with BLUEMARK X1 and CMS-P1-PLOTTER, color: blue
0818360	UC-TM 6 GN	UniCard materials for labeling terminal blocks with a marker groove,80-section, can be labeled with BLUEMARK X1 and CMS-P1-PLOTTER, color: green
0818328	UC-TM 6 OG	UniCard materials for labeling terminal blocks with a marker groove,80-section, can be labeled with BLUEMARK X1 and CMS-P1-PLOTTER, color: orange
0818357	UC-TM 6 RD	UniCard materials for labeling terminal blocks with a marker groove,80-section, can be labeled with BLUEMARK X1 and CMS-P1-PLOTTER, color: red
0818331	UC-TM 6 YE	UniCard materials for labeling terminal blocks with a marker groove,80-section, can be labeled with BLUEMARK X1 and CMS-P1-PLOTTER, color: yellow

Diagrams/Drawings

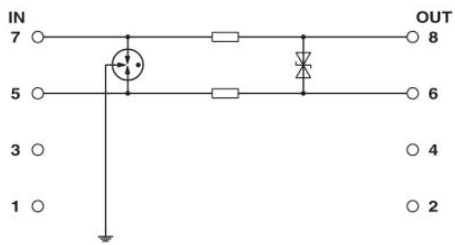
Application drawing



Dimensioned drawing



Circuit diagram



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