

Surge Protector FieldConnex® M-LBAS-IA1.DE

- For Ethernet-APL spur ports
- Intrinsically safe according to 2-WISE and FISCO
- Installation on DIN mounting rail in cabinet or field junction box
- Direct grounding of the cable shield

Surge protector, Ethernet-APL, control cabinet installation, Ex ia, Ex ec, direct shield grounding



ethernet-apl™
advanced physical layer

Function

The surge protector protects spur ports of Ethernet-APL field switches used with Ethernet-APL field devices and PROFIBUS PA field devices.

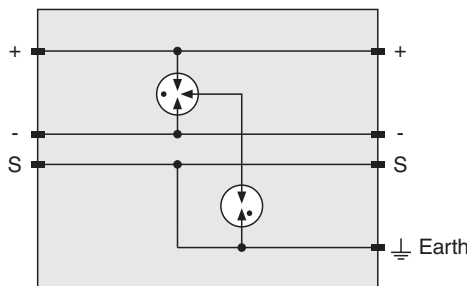
The surge protector directs power from voltage surges and lightning to earth via gas discharge tubes.

For direct grounding of both ends of the cable shield, the surge protector connects the cable shield directly to ground.

The device is certified intrinsically safe for circuits in explosion-hazardous areas Zone 0 ... 2 according to 2-WISE and FISCO. The surge protector can be installed in Zone 1 ... 2.

Mounting on a 35 mm DIN mounting rail permits installation in cabinets or fieldbus junction boxes.

Connection



Technical Data

General specifications

Design / Mounting	Cabinet installation
Installation in hazardous area	Zone 1

Ethernet Interface

Interface type	Ethernet-APL auxiliary device
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Electrical specifications

Rated voltage	U_r	30 V
Rated current	I_r	500 mA

Technical Data

Impulse rating		2 kV/1 kA (category C1) per line 10 kV/5 kA (category C2) per line 1 kA (category D1) per line
Impulse discharge current (10/350 μ s)	I_{imp}	0.5 kA per line
Nominal discharge current (8/20 μ s)	I_n	
per line		5 kA
total		10 kA
Shield		10 kA
Max. surge current (8/20 μ s)	I_{max}	10 kA overstressed fault mode 3 acc. to IEC 61643-21
Voltage protection level	U_p	
Line/Earth		max. 1500 V C1 , 1 kA per line max. 2100 V C2 , 5 kA per line max. 50 V C3 , 50 A per line max. 1300 V B2 , 50 A per line
Standard conformity		
Degree of protection		IEC/EN 60529
Climatic conditions		IEC 60721
Shock resistance		EN 60068-2-27
Vibration resistance		EN 60068-2-6
Surge protection		IEC 61643-21
Ethernet		Ethernet-APL , IEEE 802.3 for 10BASE-T1L
Ambient conditions		
Ambient temperature		-40 ... 80 °C (-40 ... 176 °F)
Storage temperature		-50 ... 90 °C (-58 ... 194 °F)
Relative humidity		\leq 95 % non-condensing
Shock resistance		15 g 11 ms
Vibration resistance		1 g , 10 ... 150 Hz
Mechanical specifications		
Connection type		screw terminals
Core cross section		solid wire 0.5 ... 2.5 mm ² , stranded wire 0.5 ... 1.5 mm ²
Housing material		Polyamide PA 6.6
Degree of protection		IP20
Mass		32 g
Mounting		DIN mounting rail
Data for application in connection with hazardous areas		
EU-type examination certificate		TÜV 22 ATEX 8786 X , TÜV 22 ATEX 8816 X
Marking		2-WISE auxiliary device , FISCO
Marking		Ⓢ II 3 G Ex ec IIC T6 Gc , Ⓢ II 2 (1) G Ex ia [ia Ga] IIC T6 Gb , Ⓢ II 2 (1) D Ex ia [ia Da] IIIC T80°C Db , Ⓢ I M2 (M1) Ex ia [ia Ma] I Mb
Voltage	U_i	30 V
Current	I_i	500 mA
Internal capacitance	C_i	negligible 0 nF
Internal inductance	L_i	negligible 0 μ H
Directive conformity		
Directive 2014/34/EU		EN 60079-0:2018 , EN 60079-11:2012 , IEC TS 60079-47:2021
Supplementary information		
International approvals		
IECEx approval		IECEx TUR 22.0017X
Approved for		Ex ec IIC T6 Gc , Ex ia [ia Ga] IIC T6 Gb , Ex ia [ia Da] IIIC T80°C Db , Ex ia [ia Ma] I Mb

Technical Data**General information**

Supplementary information

Observe the certificates, declarations of conformity, instruction manuals, and manuals where applicable. For information see www.pepperl-fuchs.com.