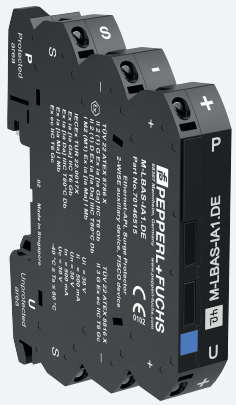


Surge Protector

FieldConnex®

M-LBAS-IA1.IE

- For Ethernet-APL spur ports
- Intrinsically safe according to 2-WISE and FISCO
- Installation on DIN mounting rail in cabinet or field junction box
- Grounding of the cable shield via a gas discharge tube

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

Function

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

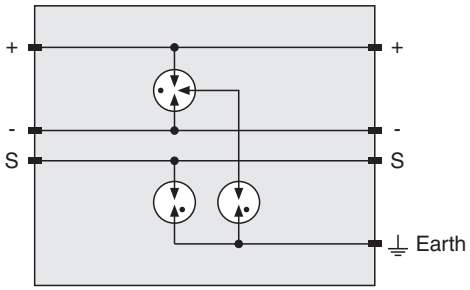
The surge protector directs power from voltage surges and lightning to earth via gas discharge tubes.

The cable shield is grounded through a gas discharge tube, thus allowing capacitive coupling of the cable shield at the protected Ethernet-APL field switch port.

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
Electrical specifications		
Rated voltage	U_r	30 V
Rated current	I_r	500 mA

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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 µs)	I_{imp}	0.5 kA per line
Nominal discharge current (8/20 µs)	I_n	
per line		5 kA
total		10 kA
Shield		10 kA
Max. surge current (8/20 µs)	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
Shield/Earth		max. 1500 V C1 , max. 1800 V C2 , max. 50 V C3 , max. 1300 V B2
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		≤ 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 mm², stranded wire 0.5 ... 1.5 mm²
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		Ⓔx II 3 G Ex ec IIC T6 Gc , Ⓔx II 2 (1) G Ex ia [ia Ga] IIC T6 Gb , Ⓔx II 2 (1) D Ex ia [ia Da] IIIC T80°C Db , Ⓔx 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 µH
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

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Technical Data

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

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