

# Ethernet-APL Surge Protector 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

Ethernet-APL surge protector for 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.

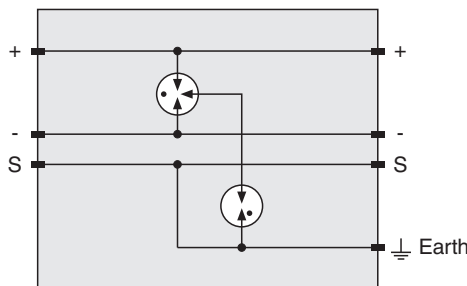
The surge protector directs power from voltage surges and lightning to earth via gas discharge tubes.

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

### Ethernet Interface

Interface type Ethernet-APL auxiliary device

### Electrical specifications

Rated voltage	$U_r$	30 V
Rated current	$I_r$	500 mA
Impulse rating		2 kV/1 kA (category C1) per line 10 kV/5 kA (category C2) per line 1 kA (category D1) per line

## Technical Data

Impulse discharge current (10/350 $\mu$ s)	$I_{imp}$	0.5 kA per line
Nominal discharge current (8/20 $\mu$ s)	$I_n$	
per line		5 kA
total		10 kA
Shield		10 kA
Max. surge current (8/20 $\mu$ 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
<b>Standard conformity</b>		
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
<b>Ambient conditions</b>		
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
<b>Mechanical specifications</b>		
Connection type		screw terminals
Core cross section		solid wire 0.5 ... 2.5 mm <sup>2</sup> , stranded wire 0.5 ... 1.5 mm <sup>2</sup>
Housing material		Polyamide PA 6.6
Degree of protection		IP20
Mass		32 g
Mounting		35 mm DIN mounting rail
<b>Data for application in connection with hazardous areas</b>		
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 $\mu$ H
Directive conformity		
Directive 2014/34/EU		EN 60079-0:2018 , EN 60079-11:2012 , IEC TS 60079-47:2021
Supplementary information		
<b>International approvals</b>		
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
<b>General information</b>		
Supplementary information		Observe the certificates, declarations of conformity, instruction manuals, and manuals where applicable. For information see <a href="http://www.pepperl-fuchs.com">www.pepperl-fuchs.com</a> .

Release date: 2023-08-01 Date of issue: 2023-08-01 Filename: 70146515\_eng.pdf

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

Pepperl+Fuchs Group  
[www.pepperl-fuchs.com](http://www.pepperl-fuchs.com)USA: +1 330 486 0002  
[pa-info@us.pepperl-fuchs.com](mailto:pa-info@us.pepperl-fuchs.com)Germany: +49 621 776 2222  
[pa-info@de.pepperl-fuchs.com](mailto:pa-info@de.pepperl-fuchs.com)Singapore: +65 6779 9091  
[pa-info@sg.pepperl-fuchs.com](mailto:pa-info@sg.pepperl-fuchs.com)

**PEPPERL+FUCHS**