Features

- 1-channel
- DIN rail mount module
- For intrinsically safe or non-intrinsically safe 30 V applications
- Protects field or control circuit inputs
- Max. surge current (8/20 µs) 20 kA
- Uninterruptable operation (auto reset)

Function

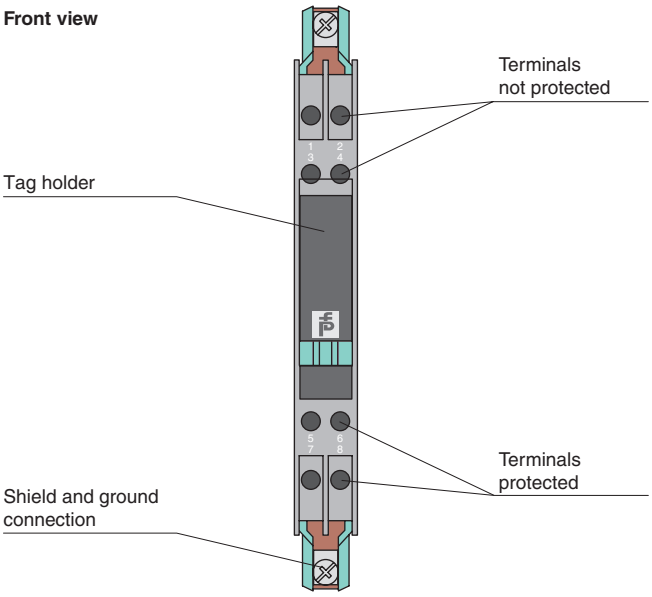
The device limits induced transients of different causes, e. g. lightning or switching operations. The limitation is achieved by diverting the current to earth and limiting the signal loop voltage during the duration of the overvoltage pulse.

The device is HART transparent.

The device is mounted on a 35 mm DIN mounting rail according to EN 60715.

Note:
Always connect the device to high-quality ground connections. The device must have the same potential as the devices it protects. Install the ground system in accordance with the applicable regulations.

Assembly



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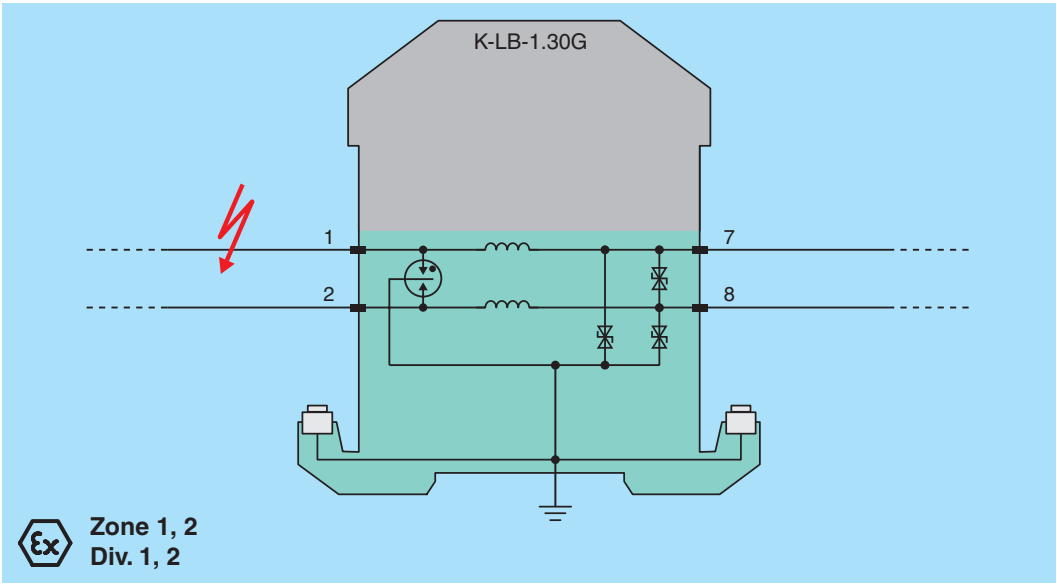
Connection



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General specifications		
Number of protected signal lines		2
Topology		grounded
Electrical specifications		
Connection		protected area: terminals 7, 8 unprotected area: terminals 1, 2
Rated current	I_r	250 mA
Leakage current		< 10 µA at 24 V and 25 °C (77 °F) , line-line
Nominal voltage		24 V DC
Maximum continuous operating voltage	U_c	30 V DC
Series resistance		< 0.5 Ω per line
Impulse rating		10 kV/5 kA (category C2) 2 kV/2 kA (category D1)
Impulse discharge current (10/350 µs)	I_{imp}	2 kA per line (2x)
Nominal discharge current (8/20 µs)	I_n	5 kA per line (10x)
Rated surge current (8/20 µs)	I_{SM}	10 kA per line (1x)
Total discharge current (8/20 µs)	I_{total}	20 kA (1x)
Voltage protection level	U_p	≤ 100 V line-line for nominal discharge current I_n ≤ 50 V line-earth for nominal discharge current I_n
Impulse reset time		< 30 ms
Insertion loss		≤ 0.05 dB, at 0 ... 4 kHz, in 600 Ω-System ≤ 3 dB, at 0 ... 174 kHz, in 100 Ω-System
Indicators/settings		
Labeling		space for labeling at the front
Conformity		
Degree of protection		IEC 60529:2013
Surge protective devices for low voltage		EN 61643-21:2001+A1:2009+A2:2013 IEC 61643-21:2001+A1:2008+A2:2012
Operating conditions		
Installation conditions		
Mounting location		indoor
Ambient conditions		
Ambient temperature		-30 ... 80 °C (-22 ... 176 °F) For usage in hazardous area observe EC-type examination certificate.
Relative humidity		5 ... 95 %
Mechanical specifications		
Degree of protection		IP20
Connection		screw terminals
Core cross-section		2 x 2.5 mm^2
Mass		approx. 100 g
Dimensions		12.5 x 115 x 110 mm (0.5 x 4.5 x 4.3 inch)
Mounting		on 35 mm DIN mounting rail acc. to EN 60715:2001
Data for application in connection with hazardous areas		
EU-Type Examination Certificate		PTB 00 ATEX 2176 X
Marking		⟨Ex⟩ II 2(1)G Ex ia IIC T6/T5/T4
Temperature class		T6 for ambient temperature ≤ 50 °C T5 for ambient temperature ≤ 70 °C T4 for ambient temperature ≤ 80 °C
Voltage	U_i	30 V
Current	I_i	250 mA
Internal capacitance	C_i	negligible
Internal inductance	L_i	200 µH
Certificate		PF 16 CERT 4065 X
Marking		⟨Ex⟩ II (3)D [Ex ic Dc] IIIC
Directive conformity		
Directive 2014/34/EU		EN 60079-0:2012+A11:2013 , EN 60079-11:2012
International approvals		
CSA approval		
Control drawing		116-0187 (cCSAus)
IECEx approval		
IECEx certificate		IECEx BAS 14.0010X
General information		

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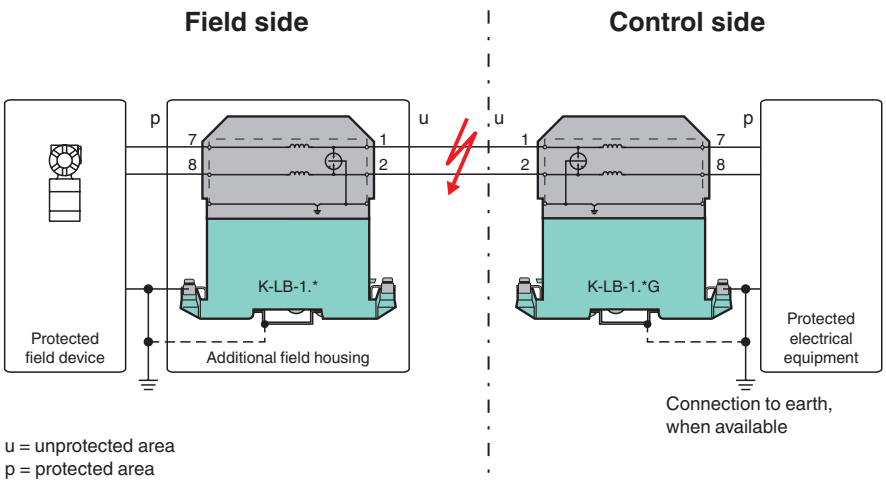
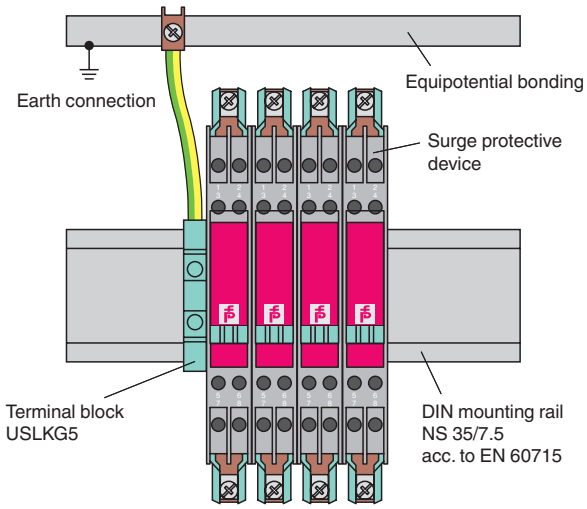
Supplementary information	Observe the certificates, declarations of conformity, instruction manuals, and manuals where applicable. For information see www.pepperl-fuchs.com.

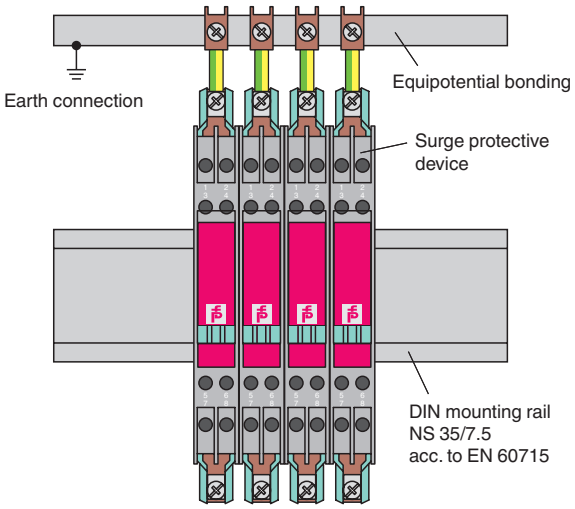
Topology



Installation examples



Insulated mounting (group grounding)



Insulated mounting (individual grounding)

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