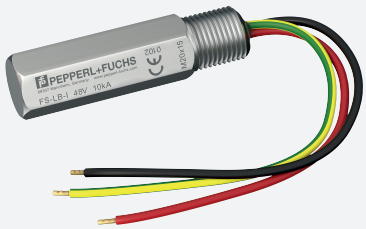
Surge Protection Barrier

FS-LB-I



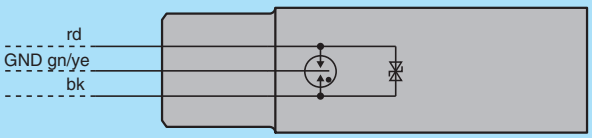
- 1-channel
- Field mount module
- M20 x 1.5 thread
- Stainless steel housing
- Max. surge current (8/20 µs) 20 kA
- 500 V isolation from earth
- Suitable for hazardous area
- Up to SIL 3 acc. to IEC/EN 61508

SIL 3

Function

This Surge Protection Barrier limits induced transients of different origin (e. g. lightning stroke, switching impulse, etc.). This is achieved by diverting the transient current to ground and limiting the signal line voltage to a safe level for the duration of the surge.
This barrier provides 85 V line-to-line and 500 V line-to-ground clamping voltage for the protected instruments. It also protects instruments that have less than 500 V isolation-to-ground.
It is installed in an available conduit or cable gland opening like those found on most process transmitters.
For additional information, refer to the manual and www.pepperl-fuchs.com.
Note: Surge Protection Barriers must always be connected to a solid and effective ground and be at the same equipotential level as the instrument it is protecting. The ground system must comply with all applicable regulations.

Connection



Zone 1, 2
Div. 1, 2

Technical Data

General specifications		
Number of protected signal lines		1
Functional safety related parameters		
Safety Integrity Level (SIL)		SIL 3
Supply		
Rated voltage	U_r	≤ 48 V
Rated current	I_r	≤ 250 mA
Leakage current		≤ 5 µA
On-state voltage		≤ 85 V
Ground insulation		≥ 500 V breakdown voltage

Release date: 2024-01-15 Date of issue: 2024-01-15 Filename: 098916_eng.pdf

Technical Data

Electrical specifications		
Total discharge current (8/20 µs)	I_{total}	20 kA
Conformity		
Degree of protection		IEC 60529:2001
Ambient conditions		
Ambient temperature		-30 ... 60 °C (-22 ... 140 °F) For usage in hazardous area observe the EC-type examination certificate.
Mechanical specifications		
Housing material		Stainless steel 1.4401 (AISI 316) surface all over polished
Degree of protection		IP67
Cable		
Length	L	0.3 m
Mass		approx. 200 g
Dimensions		AF22 x 77 mm (0.9 x 3 inch)
Length		77 mm
Width across flats		22
Mounting		M20 x 1.5 thread
Data for application in connection with hazardous areas		
EU-type examination certificate		PTB 00 ATEX 2175
Marking		⟨Ex⟩ II 2G EEx ia IIC T6
Voltage	U_i	50 V
Maximum leakage current		10 kA line to ground (common), 5 kA line to line (differential) in accordance to IEC 60-2
Nominal response time		
Symmetrical		1 ns
Asymmetric		100 ns
Bandwidth		≥ 40 kHz
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)
General information		
Supplementary information		EC-Type Examination Certificate, Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see www.pepperl-fuchs.com.

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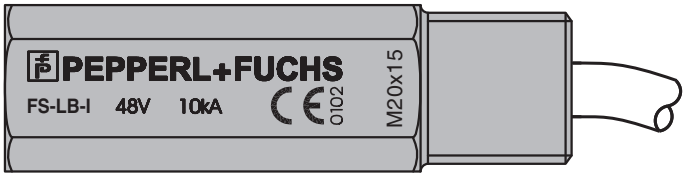
Assembly



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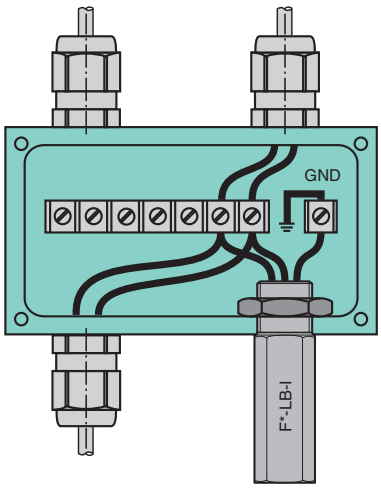
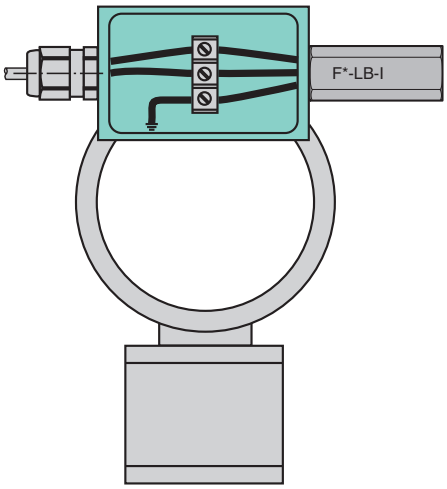
Connection

Installation examples

Terminal box



Transmitter



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