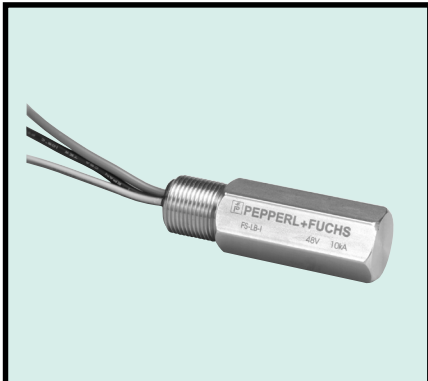


48 VDC SafeZap for Isolated Circuits



**Model Number
FN-LB-I**

- Machined 316 SS housing
- 1/2" NPT
- Intrinsic safety and explosion-proof applications
- 10 kA discharge current
- Automatic reset
- Protects measurement and control lines
- For safe or hazardous areas

The FN-LB-I surge protection barrier limits induced transients from various origins including lightning and switching impulses. 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.

This unit protects instruments that have more than 500 volts isolation to ground, with an available conduit or cable gland opening like those found on most process transmitters.

Note: Surge protection barriers must always be connected to a solid and effective ground (large wires, short links, etc.) The ground system must comply with all applicable regulations.

Technical Data

Unprotected Field Circuit	Red, green/yellow, black wires
Operating voltage	≤ 48 V
Leakage current	≤ 5 μA

Protected Circuit	Red, green/yellow, black wires
Differential mode	≤ 85 V
Common mode	500 V

Entity Parameters

CSA control drawing no.	116-0187
Voltage V_o	≤ 48 V
Current I_o	≤ 250 mA
Power P_o	≤ 1.3 W
Internal capacitance (C_a)	≤ 1.5 nF
Internal inductance (L_a)	≤ 200 μH

Nominal Discharge Current	10 kA (8/20 μs) per lead
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Nominal Response Time

Symmetric	1 ns
Asymmetric	100 ns

Bandwidth	≥ 40 kHz
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Mechanical

Mounting	Type 1/2" NPT
Dimensions (mm)	75 x 22
Weight	175 g (6.3 oz.)
Terminal Connection	Three -16 AWG flying leads
Rating	Intrinsic safety, explosion-proof; Type 4X

Ambient Temperature

Safe area application	-30°C to +80°C (-22°F to +176°F)
Hazardous area application	-30°C to +60°C (-22°F to +140°F)



Connection Diagram

Div 1, Zone 1 or safe area

