

TSP10 Surge Protection Barrier



Citel's new TSP10 surge protection barrier is designed to limit transients to critical process transmitters. Principal use is on 4-20 mA current loops, signal lines and low speed data lines feeding transducers, flow meters, water level monitors, control circuits and variety of similar field sensor, signal and OEM applications. It can also be used for intrinsic safety and explosion-proof applications. The units mounts in an available conduit or cable gland opening found on most process transmitters.

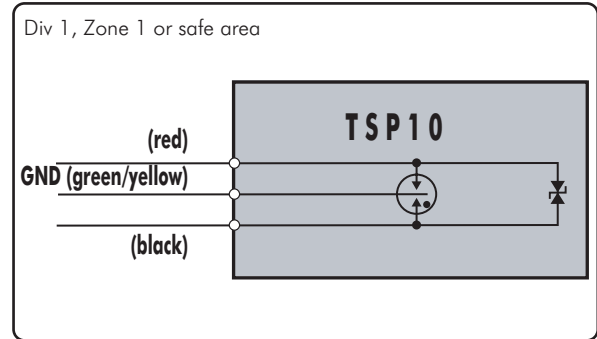
Features and Benefits

- 10kA surge current capacity
- Compact design
- Machined 316 stainless steel housing
- 1/2" NPT Thread
- Automatic Reset
- Can be mounted in hazardous areas
- NEMA 4X rated housing
- Pre-wired leads
- Conduit Mounted

Applications

- Intrinsically safe or explosion-proof areas
- High lightning or transient areas
- Critical process transmitters
- 4-20 mA current loops, signal lines and low speed data lines feeding transducers, flow meters, water level monitors, control circuits and variety of similar field sensor

Wiring diagram



Unprotected Field Circuit	Red, green/yellow, black wires
Operating voltage	< 48 V
Leakage current	< 5 μ A

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_o)	< 1.5 nF
Internal inductance (L_o)	< 200 μ H

Nominal Discharge Current	10 kA (8/20 μ s) 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 +80°C (-22°F to +176°F)

