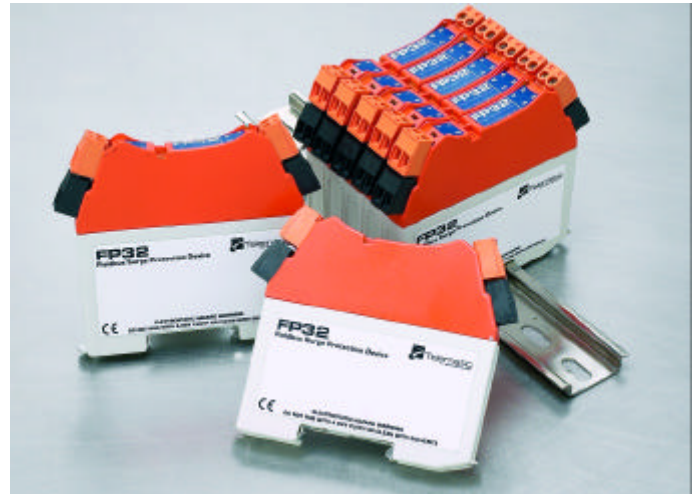


FP32

Din rail mounting, 20kA surge protection for Fieldbus systems



- **DIN rail mounting for easy installation and automatic earthing**
- **20kA maximum surge current per line**
- **Plug connectors for quick and easy connection or rewiring**
- **Meets the requirements of IEC 61158-2:2000 for FOUNDATION FIELDBUS**
- **10 year product warranty**



The FP32 surge protection device prevents surges and transient over-voltages conducted along the Trunk or Spurs of fieldbus systems from damaging the associated electronics such as terminators, spur blocks and the bus control equipment. The FP32 is designed to be used at both ends of the Trunk where a Spur is connected to safely divert any surges to ground.

The multi-stage hybrid surge protection network at the heart of the FP32 uses a combination of solid state electronics and a gas filled discharge tube (GDT) to provide surge protection up to 20kA. This impressive surge protection circuit is designed to exhibit exceptionally low line resistance and adds only a tiny voltage drop to the bus. As a result, no matter how many FP32 devices are connected to a Trunk or Spur the system will still be able to support it's full 32 transmitters as specified by IEC 61158-2. In operation the

FP32 device does not adversely effect the performance or operation of the fieldbus or connected equipment, it allows signals to pass with very little attenuation while diverting surge currents safely to earth and clamping output voltages to safe levels.

Fully automatic in operation, FP32 devices react immediately to make sure that equipment is never exposed to damaging surges between lines or the lines and earth. Reacting instantaneously the FP32 redirects surges safely to earth and then resets automatically.

Din rail mounting and a small footprint allow the FP32 to be conveniently located near terminators and spur blocks while plug connectors for Trunk / spur cables and the earth & shield of the cable make removing a device or re-patching a simple operation.

A 10 Year 'No Fuss' warranty is available as standard for the FP32, so if a correctly connected device should fail for any reason, simply return it for a free replacement.

The FP32 meets IEC 61158-2:2000 for 31.25kB/s systems such as FOUNDATION Fieldbus, PROFIBUS-PA and WorldFIP

Data & Signal Protection

Specification

All figures typical at 25°C (77°F) unless otherwise stated

Maximum surge current

20kA (8/20µs waveform) per line

Leakage current

<1µA @ working voltage

Working voltage

±32Vdc

Maximum continuous operating voltage

±36V peak normal mode

±225V peak common mode

Limiting voltage

62V @ 3kA 8/20µs

Line resistance

0.5Ω per line

Capacitance

Line - Line - 40pF

Line - Earth - 80pF

Attenuation

-1dB - 7kHz-7.5mHz

Ambient temperature limits

-20C - +60C (working)

-40C - +80C (storage)

Humidity

5% to 95% RH (non-condensing)

Electrical connections

Plug/header screw terminal strip

Weight

5.0 oz (140g approx)

Dimensions

See figure 1

EMC compliance

BS EN 60950:1992 (Pending)

BS EN 61000-6-2:1999 (Pending)

BS EN 61010-1:1993 (Pending)

Electrical Safety

UL Isolated Loop Protector (Pending)

Class I, Division 2, Groups A, B, C & D

hazardous locations (Pending)

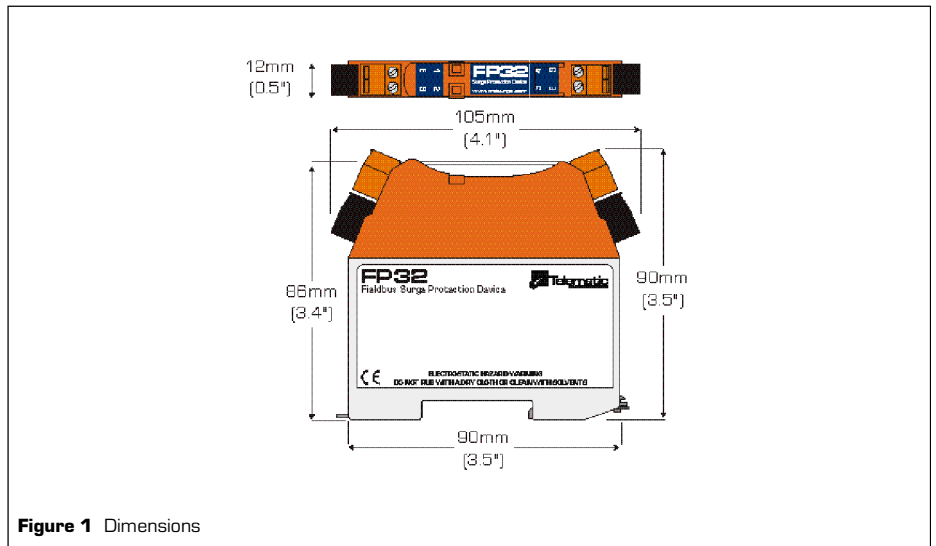


Figure 1 Dimensions

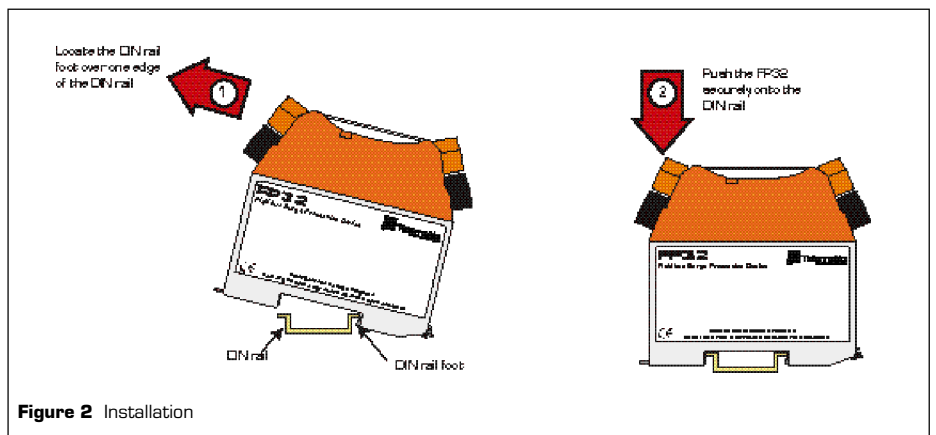


Figure 2 Installation

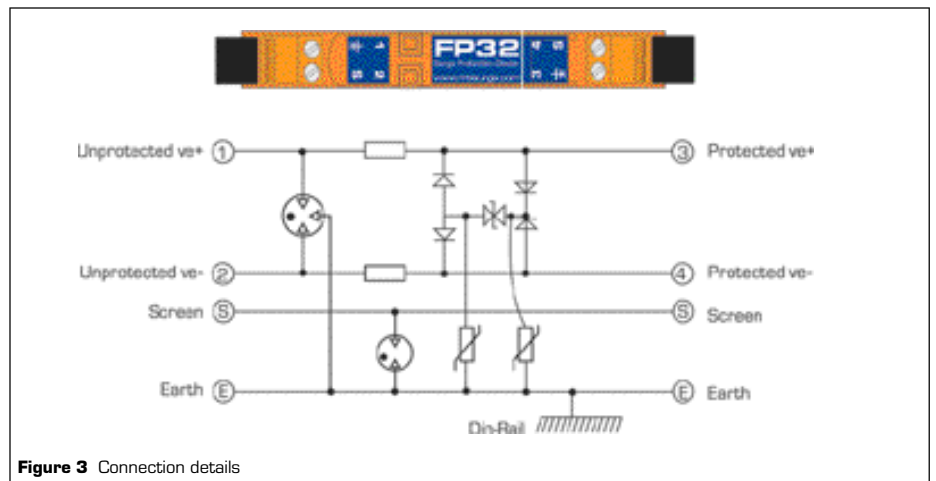


Figure 3 Connection details

Telematic and Atlantic Scientific surge protection devices are designed and manufactured by MTL Surge Technologies.

MTL Surge Technologies

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