

# SLP Series

Ultra-slim user-friendly devices for protecting electronic equipment and systems against surges on signal and I/O cabling

- **Surge protection for two loops per SLP (or one 4-wire circuit)**
- **Range of ATEX Certified intrinsically safe surge protectors**
- **Space-saving design; easy installation**
- **Multi-stage hybrid protection circuitry – 20kA maximum surge current**
- **Range of voltage ratings – to suit all process I/O applications**
- **Designed for high bandwidth, low resistance applications**



**The SLP Series** is a range of surge protection devices combining high packing densities, application versatility, proven hybrid circuitry and simple installation – features which make the series the most cost effective surge protection solution for process control equipment systems and communications networks.

**The multi-stage hybrid surge protection network** at the heart of the SLP 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 circuit.

**In operation, the SLP device does not adversely affect the performance or operation of the loop** or combined equipment. The device 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,** SLP devices react immediately to make sure that equipment is never exposed to damaging surges between lines or the lines and earth. Reacting instantaneously, the SLP redirects surges safely to earth and then resets automatically.

**The versatile SLP series design considers the need for high packing densities** and has a product combining protection for two process loops into one case. Each module provides full hybrid surge protection for two process loops.

**For higher bandwidth applications,** the SLP series has been developed to meet the demands of today's highest speed communication systems.

**One simple man-**

**ual operation** clamps modules securely onto DIN rail, which automatically provides the essential high-integrity earth connection.

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

**'Top-hat' (T-section) DIN rail** is generally suitable for mounting SLP modules although for adverse environments, a specially-plated version is available from MTL Surge Technologies.

## Data & Signal Protection

# Specification

(all figures typical at 25°C unless otherwise stated)

## Maximum surge current

20kA (8/20µs waveform) per line

## Leakage Current

<1µA @ working voltage

## Maximum rated load current

1.50A

## Loop resistance

2 Ohm

## Capacitance

Line - Line - 60pF

## Bandwidth

-1db @9kHz - 37MHz

-3dB @50MHz

## Response time

<1ns

## Ambient temperature

-20°C to +60°C (working)

-4°F to +140°F (working)

-40°C to +80°C (storage)

-40°F to +176°F (storage)

## Humidity

5 to 95% RH (non-condensing)

## Terminals

2.5mm<sup>2</sup> (12 AWG)

## Electrical connections

Plug/header screw terminal strip

## Mounting

T-section DIN-rail

(35 x 15mm rail)

## Weight

5oz (140g approximately)

Case flammability

UL94 V-2

## EMC compliance

BS EN 60950:1992

BS EN 61000-6-2:1999

BS EN 61010-1:1993

## Electrical safety

UL Isolated Loop Protector (Pending)

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

hazardous locations (Pending)

Model	Working voltage  (Vdc)	Rated load operating current (A)	Max. continuous operating voltage (Vdc)	Max. leakage current (µA)	Let-through voltage (V)	Bandwidth (Frequency)	
						@ 9kHz - 37MHz	@ 50MHz
SLP07D	7	1.50	8	1	10	-1dB	-3dB
SLP16D	16	1.50	18	1	23	-1dB	-3dB
SLP32D	30	1.50	32	1	40	-1dB	-3dB

Let-through voltage tested at 6kV 1.2/50µs; 3kA 8/20µs.

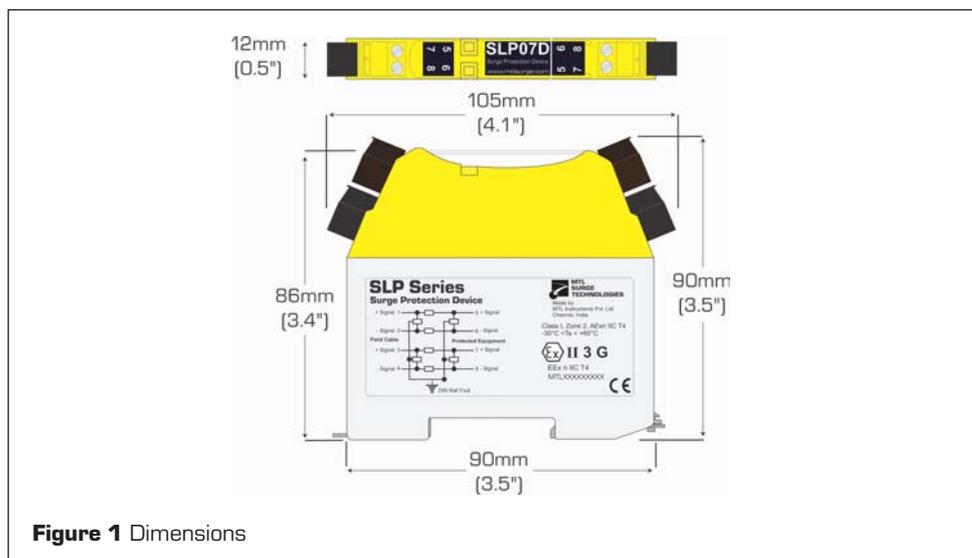


Figure 1 Dimensions

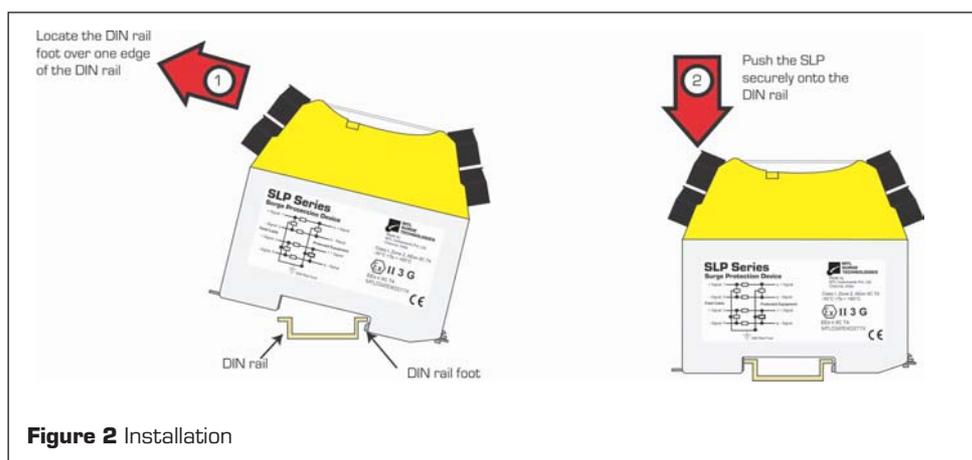


Figure 2 Installation

## To order specify -

Order by module, as listed in the specification table.

Note: In accordance with our policy of continuous improvement, we reserve the right to change the product's specification without notice.

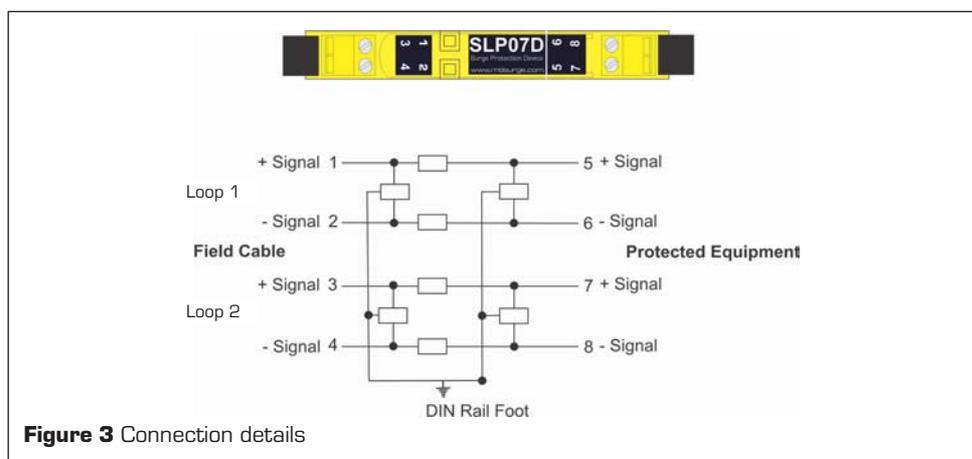


Figure 3 Connection details

## Approvals

Country (Authority)	Standard	Certificate/ File No.	Approved for	Product
ATEX	BS EN 60950:1992 BS EN 61000-6-2:1999 BS EN 61010-1:1993	ATEX0377X	EEx N IIC T4	SLP07D, SLP16D, SLP32D
EC [Baseefa]	EN50014:1997-A1 & A2 EN50020:2002 EN50284:1999	Baseefa 04 ATEX0303X	EEx ia IIC T4	SLP07D, SLP16D, SLP32D

## MTL Surge Technologies

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