



TWISTED PAIR DATA/SIGNAL PROTECTOR

Protects electronic equipment and systems against induced surges and transients on signal/data or even low power DC/AC lines

- ◆ **Design for single-pair or multi-pair applications**
- ◆ **Multi-stage protection offers exceptional safety**
- ◆ **Full range of voltage**
- ◆ **Easy installation & maintenance**
- ◆ **High surge rating & bandwidth**
- ◆ **Protects high current signal lines or even low power DC/AC lines**
- ◆ **Five years warranty**



Designed for single-pair or multi-pair applications

-LEPS TPP series of protectors offer a flexible surge protection that meets different applications. Users can choose 1 pair, 2 pairs or 4 pairs protector or any combination of them which means it can be used as a building block in surge protection solution to suit your existing or future requirements.

Multi-stage protection offers exceptional safety

-TPP series are multi-stage design which employed sophisticated hybrid circuitry by using a combination of high energy gas discharge tube, ultra fast diodes and SAD which ensures excellent protections without impeding normal operation.

Full range of voltage -Any kind of communication, automation or control lines, TPP series of protectors has the suitable voltage models to fulfill users' expectations. They can be used in fire and security systems, PLC, railway signalling, computer communications like RS232, RS485 protocols, SCADA and any other signal voltage operating at 5V to 200V.

Easy installation & maintenance -

The wiring are done by a plugable terminal strip for easy installation and maintenance. The protectors can be easily secured onto a standard 35mm Top Hat DIN rail.

Protects high current signal lines or even low power DC/AC lines

-If higher current control lines or DC/AC low power lines need to be protected, the "/H" version, two amperes protector is the ideal choice. It can supply up to 2A to meet the high current signal or power line protection requirements.

High surge rating & bandwidth-

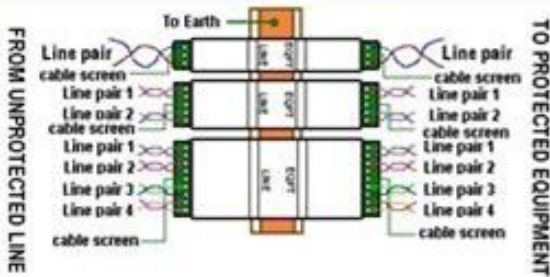
With its 20KA surge handling capability and 20MHz high bandwidth, it can provide the safest protection in lightning intense environment and also ensures a smooth data traffic.

Five years warranty

-All LEPS protectors are tested to comply with many international safety standards and with five years warranty.

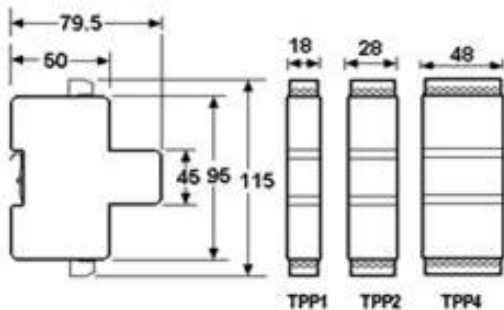


Installation



For detail installation requirements, pls refer to relevant user manual.

Dimensions



Ordering Information

MODEL	MAX. WORKING VOLTAGE	LET-THROUGH VOLTAGE	DESCRIPTION
TPP1-V5	7V	10V	Twisted pair,
TPP1-V12	17V	23V	data/signal line
TPP1-V24	34V	43V	protector,
TPP1-V48	68V	79V	single pair
TPP1-V130	180V	210V	
TPP1-V200	280V	320V	
TPP2-V5	7V	10V	Twisted pair,
TPP2-V12	17V	23V	data/signal line
TPP2-V24	34V	43V	protector,
TPP2-V48	68V	79V	two pairs
TPP2-V130	180V	210V	
TPP2-V200	280V	320V	
TPP4-V5	7V	10V	Twisted pair,
TPP4-V12	17V	23V	data/signal line
TPP4-V24	34V	43V	Protector,
TPP4-V48	68V	79V	four pairs
TPP4-V130	180V	210V	
TPP4-V200	280V	320V	

Notes :

- (1) The suffix of the model number represents the nominal working voltage e.g.V5 has 5V nominal working voltage. If higher current(>300mA) control lines or low power DC/AC lines need to be protected, add "H" at the suffix of the model number which can supply up to 2A current, e.g. TPP2-V24/H.
- (2) For different applications or communication protocol's protection, pls refer to our product selection guides.

General Specifications

Max. working voltage:	Max.	7 - 28 0V(see ordering information)
operating current:		300mA(2A, /H version)
Protection modes:		common and transverse
Protection stages:		3 stages
Earth leakage current:		<5 μ A
Response time:		<5ns
Max. Surge rating:		20KA(8/20 μ s)
Max. data rate:		20Mb/s
Insertion loss:		<1dB at 20MHz
Voltage standing wave ratio:		<1.2
Let through voltage:		10 - 320V(see ordering information)
(At 5KV 10/700 μ s)		
Capacitance:		50pf
In line resistance:		3.9 Ω
Standards compliance:		BS6651-1999 Cat.A.B.C AS1768-2003 Cat.A.B.C IEC 61643- 21 ITU(CCITT)1X K17 CP33-1996 Cat.A.B.C UL497B
EMC compliance:		BS EN 60950: 1992 BS EN 61000-6-2:1999
Connector type:		Plugable terminal strip
Earth connection:		DIN clip
Enclosure material:		Anodized aluminum
Conductor size:		2.5mm ²
Operating temperature:		-40-85 $^{\circ}$ C
Humidity:		0-95%(R.H.)
Altitude:		0-3650m
Weight:		
	TPP1-All models	114g
	TPP2-All models	158g
	TPP4-All models	246g