

# TSP

TM

## Series

**Ideal For  
LAN, Data,  
Signal and  
Instrumentation  
Interfaces**



## DATA LINE SURGE PROTECTION

The TSP Series of terminal strip protectors will ensure the reliable operation of networked equipment connected to Token Ring, RS422, RS232, Short Haul Modems, Muxes, DDS, Analog Dial Up, ISDN, T1 and most other communication interfaces.

### TSPs OFFER

- State-of-the-art, avalanche diode technology
- Compact in-line installation
- High speed, high energy handling capability
- Low shunt capacitance to reduce signal loss

### YOU RECEIVE

- Affordable, superior, equipment protection
- Improved reliability and maximized system up-time
- Protection at the I/O interface
- Adaptability to most industry applications

The TSP Series devices will guard sensitive data networks against lightning induced surges, AC power interference, electrostatic discharge, and ground loop energies.

Typical applications include: data communications and instrumentation interfaces using

Token Ring, RS422, RS232, Short Haul Modems, Muxes, CSU/DSU, T1, PLC's and most other communication interfaces.

When installed on the system I/O ports, TSPs prevent equipment damage and system errors which are a common result of transient surge energies induced onto the communications interface and ground plane.

TSPs utilize low capacitance avalanche diode arrays for low loss, high speed protection. These field-proven circuits offer the most dependable protection available for today's highly sensitive electronic systems.

Whether you need to protect a single communication line, or an entire installation, Cylix protectors are an easy, cost-effective solution to overvoltage problems.

[www.cylinx.com](http://www.cylinx.com)

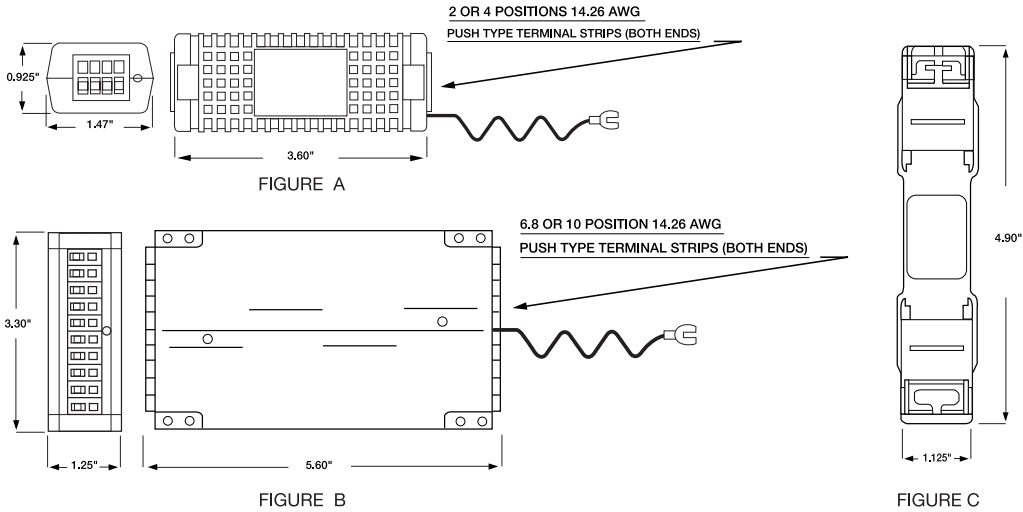


MADE IN THE USA



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	<b>ELECTRICAL SPECIFICATIONS</b> (All specifications are subject to change without notice)						
	10BASE T ETHERNET	RS422, RS485 RS423	RS232, V.35 or Digital 4-20 mA Current loop	TOKEN RING	ARCNET or Analog 4-20 mA Current loop	CSU/DSU, T1, DDS, ISDN (fused)	DIAL-UP MODEM/FAX (fused)
STD. CLAMP VOLTAGE	7.5 VOLTS	7.5 VOLTS	18 VOLTS	18 VOLTS	27 VOLTS	60 VOLTS	240 VOLTS
PEAK PULSE CURRENT 10/1000 us s.c. wave form @Vcl	132 AMPS	132 AMPS	60 AMPS	60 AMPS	40 AMPS	50 AMPS	75 AMPS
RESPONSE TIME	----- LESS THAN 5 NANoseconds -----						
MAXIMUM SHUNT CAPACITANCE	<40pF	<40pF	<40pF	<40pF	<40pF	<75pF	<95pF



CONNECTOR TYPE	<b>SYSTEM APPLICATION AND MODEL NUMBER</b>						
	10BASE T ETHERNET	RS422, RS485 RS423	RS232, V.35 or Digital 4-20 mA Current loop	TOKEN RING	ARCNET or Analog 4-20 mA Current loop	CSU/DSU, T1, DDS, ISDN (fused)	DIAL-UP MODEM/FAX (fused)
2 TERMINAL BARRIER STRIP FIGURE A	TSP-2B-E	TSP-2B-E	TSP-2B-T	TSP-2B-T	TSP-2B-A	TSP-2B-B	TSP-2B-G
4 TERMINAL BARRIER STRIP FIGURE A	TSP-4B-E	TSP-4B-E	TSP-4B-T	TSP-4B-T	TSP-4B-A	TSP-4B-B	TSP-4B-G
6 TERMINAL BARRIER STRIP FIGURE B (WITH 6 TERMINALS)	TSP-6B-E	TSP-6B-E	TSP-6B-T	TSP-6B-T	TSP-6B-A	TSP-6B-B	TSP-6B-G
8 TERMINAL BARRIER STRIP FIGURE B (WITH 8 TERMINALS)	TSP-8B-E	TSP-8B-E	TSP-8B-T	TSP-8B-T	TSP-8B-A	TSP-8B-B	TSP-8B-G
10 TERMINAL BARRIER STRIP FIGURE B	TSP-10B-E	TSP-10B-E	TSP-10B-T	TSP-10B-T	TSP-10B-A	TSP-10B-B	TSP-10B-G
32 TERMINAL BARRIER STRIP NOT SHOWN	TSP-32B-E	TSP-32B-E	TSP-32B-T	TSP-32B-T	TSP-32B-A	TSP-32B-B	TSP-32B-G
TOKEN RING TYPE B DATA CONNECTOR FIGURE C	X	X	X	TSP-TR	X	X	X

SPECIAL CONFIGURATIONS ARE AVAILABLE, CONTACT YOUR SUPPLIER

## ORDERING INFORMATION

To order a TSP, choose the correct part number by selecting the system application and connector type from the above chart. See figures A, B and C for product physical outlines.

NOTE: Special units can be supplied for any clamp voltage between 7.5 V and 240 V. The following information must be specified when ordering special units:

1. Connector type and number of wires (ex., barrier strip, 4 wire)
2. System application (ex., 4-20 mA current loop)

## INSTALLATION

To install, insert the protector in series between the incoming communication lines and the I/O port of the equipment to be protected. The protector ground wire must be connected to the metal chassis of the equipment being protected. Units should be installed at both ends of the data cable for the most effective protection.

## CAUTION!

If the protector has a ground wire it must be grounded directly to the metal chassis of the equipment being protected.

Also, the equipment chassis must be connected to earth through a properly grounded AC power receptacle.

## CYLIX CIRCLE OF PROTECTION WARRANTY

The Cylix Corporation offers our "Circle of Protection" Warranty which includes a \$25,000 Connected Equipment Guarantee, 5 Year Replacement Program and a Limited Lifetime Warranty. This warranty applies only to serialized products registered with The Cylix Corporation and is subject to certain disclaimers and limitations. For a complete warranty statement, please contact The Cylix Corporation.