

# Surge Suppressor

# SLP

TPD surge suppressor, dissipates and removes harmful transient voltages traveling on data and signal lines reducing lockups, glitches, reprogramming issues and damage.

Improve power quality for your sophisticated electronic loads. **Rebooting, reprogramming and replacing processors, circuit boards and components** can be a never-ending battle. **Problems** in the system are as simple as occasional glitches locking up or turning on and off equipment without user input to **wide spread damage during a severe lightning storm**. TPD-SLP series eliminates damaging pulses traveling in on low voltage pathways protecting automation systems, pool controls, distributed audio, sensors etc. These pulses of energy are distributed throughout the system if left unprotected. The problems will vary depending upon the size and frequency of these pulses. As microprocessors try to function, these transient pulses of energy will cause lock-ups where data can become lost or corrupted. **Larger pulses will cause catastrophic failure while smaller pulses degrade the life and reliability of these systems and controls.**

**Automation Lighting Systems  
Pumps HVAC Air Handlers  
PLC Controls Drive Way Probes**



## SLP PERFORMANCE SPECIFICATIONS

Model Number	Protection Mode	Max Operating Voltage	Max Data Rate	Max Continuous Operating Current	Let-Through Volt IEC 10 x 700 µs Impulse 2kV / 80A	Let-Through Volt ANSI/IEEE C3 Impulse 20kV / 10kA
TPD-190SLPxx (125 - 192V)	L-L	210V	10Mbps	300mA	180V	160V
	L-G	210V			180V	160V
TPD-120SLPx (51V -124V)	L-L	130V	10Mbps	300mA	180V	160V
	L-G	130V			180V	160V
TPD-48SLPx (31V -50V)	L-L	56V	10Mbps	300mA	65V	62V
	L-G	56V			65V	62V
TPD-24SLPx (16V -30V)	L-L	36V	10Mbps	300mA	38V	41V
	L-G	36V			38V	41V
TPD-15SLPxx (11V -15V)	L-L	18V	10Mbps	300mA	30V	33V
	L-G	18V			30V	33V
TPD-10SLPxx (1 - 10V)	L-L	12V	10Mbps	300mA	24V	22V
	L-G	12V			24V	22V

## SPECIFICATIONS

**Applications:** RS232, RS422/423/485 data, 4-20 mA current loop circuits and signal lines

**Design:** Multistage hybrid fail-safe design

**Warranty:** 10-Year Unlimited Free Replacement

**Strength:** 18kA per pair; 9kA per wire

**Operating Frequency:** 50MHz

**Maximum Continuous Operating Current :** 300mA

**Mode of Protection:** Line-line and line-ground.

**Options:** RJ-45 connectors—add suffix "RJ"

(available for units with 8 wires only)

**Response Time:** < 1 nanosecond

**Number of Protected Circuit:** 1-5 pair (2-10 wire)

**Series Resistance:** 2.4 ohm

**Dimensions (approx.):** Two enclosure sizes depending on the number of circuits

Case A (1-2 pair): 2.885"H x 2.130"W x 1.130"D

Case B (3-5 pair): 4.375"H x 2.885"W x 1.230"D

**Enclosure Type:** High-impact, non-metallic UL 94-5V flame resistant rated

**Connection Method:** Screw terminal connector; #12-30 AWG

**Mounting Method:** All units come standard with a universal mounting bracket that allows the units to be screw down or Din-Rail mounted.

**Operating Temperature:** -40° C to 85° C (-40° F to 185° F)

**Weight:** 0.50 lbs.—0.75 lbs. (0.23 kg—0.34 kg) depending on number of circuits.

## Model Numbers

TPD-190SLP2

TPD-190SLP4

TPD-190SLP6

TPD-190SLP8<sup>1</sup>

TPD-190SLP10

TPD-120SLP2

TPD-120SLP4

TPD-120SLP6

TPD-120SLP8<sup>1</sup>

TPD-120SLP10

TPD-48SLP2

TPD-48SLP4

TPD-48SLP6

TPD-48SLP8<sup>1</sup>

TPD-48SLP10

TPD-24SLP2

TPD-24SLP4

TPD-24SLP6

TPD-24SLP8<sup>1</sup>

TPD-24SLP10

TPD-15SLP2

TPD-15SLP4

TPD-15SLP6

TPD-15SLP8<sup>1</sup>

TPD-15SLP10

TPD-10SLP2

TPD-10SLP4

TPD-10SLP6

TPD-10SLP8<sup>1</sup>

TPD-10SLP10

All voltages are peak values (+10%). Test environment: static, positive polarity, time base = 1 ms  
x = 2 for 2 wire, 4 for 4 wire, 6 for 6 wire, 8 for 8 wire and 10 for 10 wire.  
Specifications subject to change without notice, see web site [www.totalprotectiondesign.com](http://www.totalprotectiondesign.com) for latest revisions.

## SLP AVAILABLE CONFIGURATIONS

TPD - XX SLP YY

XX OPERATING VOLTAGE 10, 15, 24, 48, 120, 190  
THE MAXIMUM OPERATING VOLTAGE IS LISTED ABOVE. USE THE LOWEST VOTAGE POSSIBLE WITHOUT GOING UNDER THE SYSTEM OPERATING VOLTAGE, GIVING YOURSELF 10% HEAD ROOM MINIMUM.

TPD - XX SLP YY

YY NUMBER OF WIRES 2, 4, 6, 8, 10  
THE NUMBER OR WIRES THAT NEED PROTECTED. EACH UNIT COMES WITH HARD GROUND CONNECTION TO GROUND EACH UNIT. DO NOT CONNECT FLOATING GROUNDS (OR SHIELD WIRES) WITHOUT FIRST READING INSTALLATION MANUAL.



Case A:  
TPD-24SLP8-RJ

Case A:  
TPD-24SLP8 &  
TPD-24SLP6

Case B:  
TPD-24SLP4 &  
TPD-24SLP2

<sup>1</sup>RJ-45 option available for 8 wire units - add "RJ" suffix

Need additional assistance?

Call Technical Support

1-800-604-9980

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

**Tech Note:** For proper grounding and installation techniques please refer to installation manual.