

Surge & Lightning Protection



TPD Surge

TPD-24SLP8

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

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.

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

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

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): 3.94"H x 1.40"W x 2.28"D Case B (3-5 pair): 3.94"H x 2.80"W x 2.28"D

Enclosure Type: High-impact, non-metallic UL 94-5V

flame resistant rated

Connection Method: Screw terminal connector; #12-30

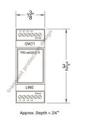
AWG

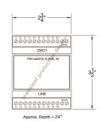
Mounting Method: All units come standard with a universal mounting bracket that allows the units to be screw down or Din-Rail mounted.

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.





Transient Protection Design, 4311 William Penn Highway, Mifflintown, PA 17059 Call Technical Support at 717-436-2856 or visit us at www.TransientProtectionDesign.com Automation Lighting Systems
Pumps HVAC Air Handlers
PLC Controls Drive Way Probes

SLP Performance Specifications

Model Number	Protection Mode	Max Operating Voltage (peak)	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	L-L	210V	10Mbps	400mA	180V	160V
(125 - 192V)	L-G	210V			180V	160V
TPD- 120 SLPx (51V –124V)	L-L L-G	130V 130V	10Mbps	400mA	180V 180V	160V 160V
TPD -48 SLPx (31V –50V)	L-L L-G	56V 56V	10Mbps	400mA	65V 65V	62V 62V
TPD- 24 SLPx (16V –30V)	L-L L-G	36V 36V	10Mbps	400mA	38V 38V	41V 41V
TPD- 15 SLPxx (11V -15V)	L-L L-G	18V 18V	10Mbps	400mA	30V 30V	33V 33V
TPD- 10 SLPxx (1 - 10V)	L-L L-G	12V 12V	10Mbps	400mA	24V 24V	22V 22V

Model Numbers TPD-190SLP2

TPD-190SLP4 TPD-190SLP6 TPD-190SLP81 TPD-190SLP10 TPD-120SLP2 TPD-120SLP4 TPD-120SLP6 TPD-120SLP81 TPD-120SLP10 TPD-48SLP2 TPD-48SI P4 TPD-48SLP6 TPD-48SLP8¹ TPD-48SLP10 TPD-24SLP2 TPD-24SI P4 TPD-24SLP6

TPD-24SLP81

TPD-24SLP10

TPD-15SLP2

TPD-15SLP4

TPD-15SLP6

TPD-15SLP8¹

TPD-15SLP10

TPD-10SLP2

TPD-10SLP4 TPD-10SLP6

TPD-10SLP8¹ TPD-10SLP10 All voltages are peak values ($\pm 10\%$). 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.TPDsurge.com for latest revisions

SLP AVAILABLE CONFIGURATIONS

TPD - XX SLP YY

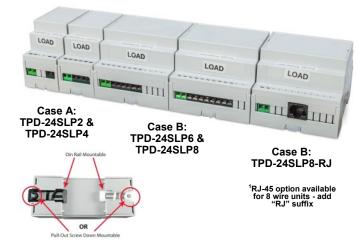
XX OPERATING VOLTAGE 10, 15, 24, 48, 120, 190

THE MAXIMUM OPERATING VOLTAGE IS LISTED ABOVE. USE THE LOWEST VOLTAGE POSSIBLE WITHOUT GOING UNDER THE SYSTEM OPERATING VOLTAGE, GIVING YOURSELF 10% HEAD ROOM MINIMUM.

TPD - XX SLP <u>YY</u>

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.



Tech Note: For installation techniques please refer to installation manual