



# SLT CAT6 DIN

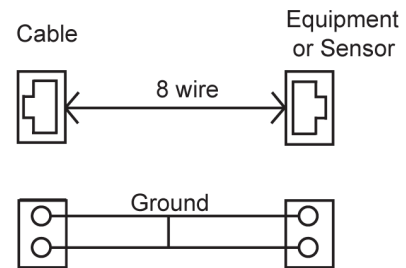
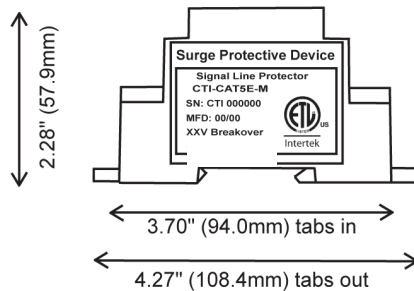
## 10/100/1000 Surge Protection Device

The **SLT Series CAT6 DIN** utilizes **State-of-the-Art Avalanche Diode Technology** to provide fast clamping and high energy handling capability.

Unit provides protection against Transient Voltages that exceed the nominal operating voltage of incoming data. Each line is protected against surge impulses up to 200A.

The SLT device works in series with the communication lines being protected; diverting harmful transient energies, while maintaining a tight clamp at the peak voltage. Units are designed to operate in a wide temperature range and are configured for 10/100/1000 Ethernet data or similar protocol.

- Protects CAT6 data lines with  $\leq 1000\text{Mbps}$  &  $\leq 250\text{Mhz}$
- Solid state fail-safe design
- Low shunt capacitance to reduce signal loss
- RJ45 (female to female) Connection Method
- Performance tested to verify compliance



(Diagrams not drawn to scale)

Electrical Specifications	
Maximum Peak Surge Current	500 Amps
Peak Pulse Power	1500 Watts Min.
Maximum Clamping Voltage at Ipp of 105 Amps	14.5 Volts
Line - Load Sensitive	No
Response Time	< 1 Nanosecond
Breakover Voltage: (Line - Ground)	10 Volts
Attenuation Worse Case Margin	1.1db @ 250MHz
NEXT	>40dB
Data Transfer Rate	10/100/1000Mbps
Power Sum NEXT	33.6dB @ 247MHz
Return Loss	28dB @ 223.5MHz
ACR	Worse Case 15.6dB
Power Sum ACR	Worse Case 14.0dB
ARC -F	26.8dB @ 220MHz
PSACRF	24.3dB @ 250MHz

Mechanical Specifications	
Weight	60 grams (2.1 Ounces)
Connector Type	8P8C (RJ45)
Mounting	DIN Rail
Enclosure	Polycarbonate UL94 V-0

Environmental Specifications	
Operating Temperature	-34°C to 74°C (-30°F to 165°F)
Relative Humidity	95% noncondensing

**NOTE:** Installation is accomplished by simply inserting the Protector in series with the communication cable(s) and connecting the grounds as required. dB values obtained with a 300 ft long cable.

All product dimensions provided are  $\pm 0.125$

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## GENERAL

1. This document provides detailed information on how to install and operate the SLT Series of Surge Protection Devices (SPD).
2. Incorrect installation may significantly impair the performance of the SPD. It is particularly important that all installation procedures and guidelines be followed exactly.
- 3. INSTALLATION OF THIS SPD SHOULD ONLY BE PERFORMED BY A QUALIFIED INSTALLER.**
4. CHECK TO ENSURE THAT ALL CONNECTIONS ARE CORRECT AND SECURE BEFORE ENERGIZING.
5. KEEP THIS MANUAL IN A SAFE, DRY PLACE FOR FUTURE REFERENCE.

## WARRANTY INFORMATION

Meter-Treater, Inc. (MTI) warrants all SLT Series models to be free from defects, and will at our option repair or replace the product should it fail within fifteen (15) years from the first date of shipment. This warranty is limited to defects in workmanship or materials, and does not cover customer damage, abuse or unauthorized modification. If this product fails or does not perform as specified, your sole recourse shall be repair or replacement as described above. Under no condition shall MTI be liable for any damages incurred by the use of this product. Damages include, but are not limited to, the following: lost profits, lost savings and incidental or consequential damages arising from the use of or inability to use this product. MTI specifically disclaims all other warranties, expressed or implied, and the installation or use of this product shall be deemed an acceptance of these terms by the user.

## WARRANTY RETURNS

All warranty and non-warranty repairs must be returned freight prepaid and insured to MTI. All returns must have a Return Authorization (RA) number on the outside of the shipping container. This number may be obtained from MTI Warranty Department (800) 342-6890. Products returned without an RA number will not be accepted.

IF UNIT(S) ARE RECEIVED DAMAGED,  
NOTIFY THE SHIPPING COMPANY  
IMMEDIATELY. RETAIN ALL SHIPPING  
CONTAINERS AND PACKING MATERIALS FOR  
INSPECTION.

Please Note:  
There are no user serviceable parts inside.



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# SLT CAT Series Surge Protection Device

## USER MANUAL AND INSTALLATION GUIDE



COMMERCIAL INSTALLATIONS

## CAUTION

### IMPORTANT SAFETY INSTRUCTIONS

1. Never install communication wiring during a lightning storm.
2. This SPD is for INDOOR USE ONLY or for use inside an enclosure approved for outdoor use.
3. Read and understand all instructions prior to installation and operation.

## WARNING

Should your equipment or building be subject to a direct lightning strike, this SPD will not provide complete protection.

**NOTE:** If applicable, the protected device/equipment should also have power protection because it is still vulnerable to transients on the power lines. Omitting power protection poses a continued threat of failures at the communication interface.

## GROUNDING

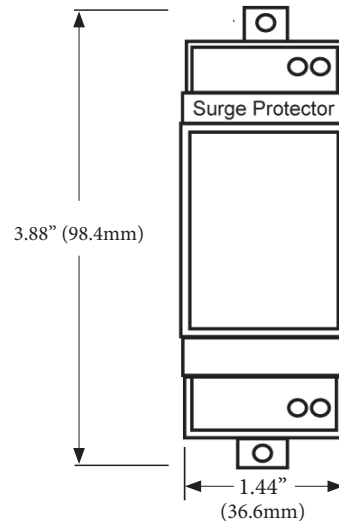
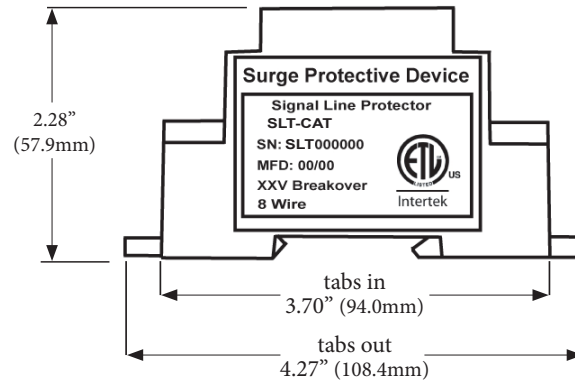
The SPD's ground wire must be as short as possible with a minimum amount of bends. This will increase the effectiveness of the surge protector. Ground wire sizes between 20AWG and 14AWG are recommended. Larger size ground wires are more effective. Ground wire lengths in excess of 12 inches (30.5cm) are not recommended.

Typically the unit is grounded at the communication equipment and connected to the floating ground or installed with the ground wire disconnected at the remote sensor located outside the main structure to prevent ground loop currents caused by different ground potential references.

## INDEPENDENT GROUNDS

Surge protection devices must not be connected to ground points that are independent of the AC ground.

## DIMENSIONS



## INSTALLATION

The SLT CAT Series of products are easy to install. The following instructions clearly explain each step:

**NOTE:** Make sure to follow installation instructions exactly; if the suppressor is improperly installed, the current limiting feature could be rendered inoperable.

1. Mount the SLT CAT Surge Protector in the desired location. For best performance the surge protector should be as close as practical to the equipment to be protected. SLT DIN models may be mounted on standard DIN rail or the mounting tabs located near the terminals may be extended for direct placement using #6 fasteners placed 3 7/8" (98.4mm) apart.

**NOTE:** The SLT CAT Surge Protector is connected in series. The surge protector is NOT Line/Load sensitive.

2. Connect the Equipment/Sensor side of the SLT CAT surge protector to the communication equipment to be protected.
3. Connect the Cable side of the SLT CAT surge protector to the incoming communication cable.
4. Connect a ground wire for the SLT CAT surge protector to the nearest available chassis ground.

