



SLT-HEB Series

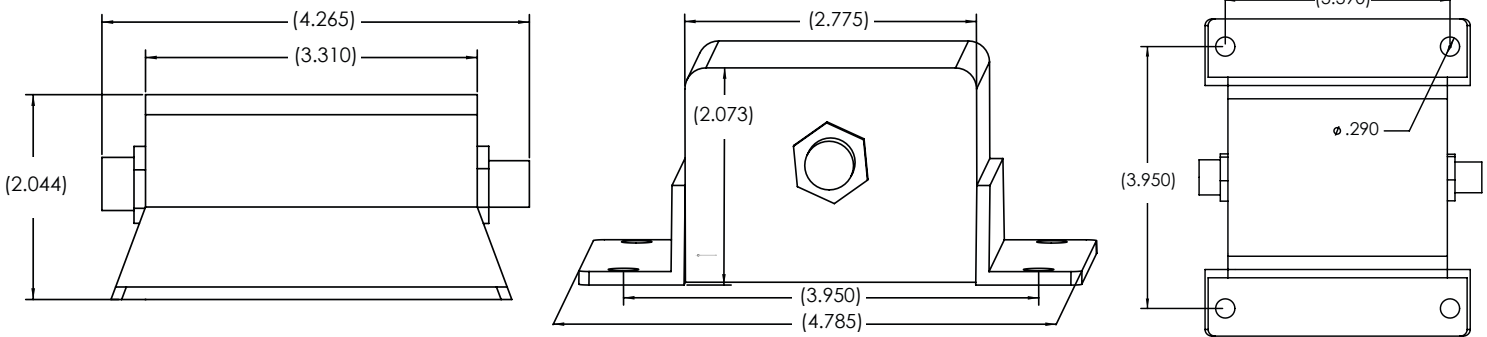
High Energy Surge
Protection Device
for Sensors

The **SLT/HEB Series** of protectors is available as either a 4, 5, 8, or 10 Wire SPD (surge protective device) unit that will interface directly, in series, with 4 or 5 pin M12/Euro/DC Micro Connectors. Models are **unidirectional** due to connector configuration; where the male connector equals Line Side (unprotected) and the female equals the Load Side (protected). Circuit performance is bidirectional.

Unit is housed in a potted aluminum case with either Zytel plastic or aluminum end caps. An external ground stud is provided in addition to the two (2) grounded mounting brackets that are bolted to the case.



Dimensions



(Diagrams not drawn to scale)

Electrical Specifications	
Max. Surge Current	8kA or 10kA
Max. Operating Voltage	36 Volts DC
Max. Operating Frequency	15 MHz
Max. Clamp Voltage	54.4 Volts @ 200 Amps/450 Volts
Surge Technology	High Energy Silicon Avalanche Diode Array (SAD)
Energy Rating/Wire	402.5 Joules
Response Time	< 1 Picosecond
UL Flammability Class	94 V-0
Listings & Certifications	UL Listed
Connectors	4 or 5 Pin Rigid M12 Connectors Male & Femals (DC Micro - Euro)
Enclosure	Aluminum Extrusion Zytel or Aluminum End Caps
Max. Operating Temp.	-40° to + 125°C
Warranty	10 Year Product Warranty

Product Dimensions
4.55" L x 4.75" W x 2.26" H (includes mounting bracket)

Model Number	Wires
SLB/HEB-04-1EC-MF/X	4 Wires (1 Connector)
SLT/HEB-05-1EC-MF/X	5 Wires (1 Connector)
SLB/HEB-08-1EC-MF/X	8 Wires (2 Connector)
SLB/HEB-10-2EC-MF/X	10 Wires (2 Connectors)

All product dimensions provided are ± 0.125

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GENERAL

1. This document provides detailed information on how to install and operate the SLT-HEB 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 DEVICE 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-HEB 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.

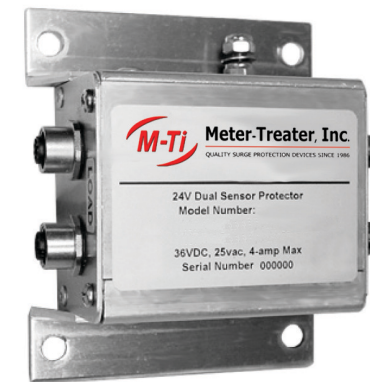
Please Note:
There are no user serviceable parts inside.



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SLT-HEB Series Surge Protection Device

USER MANUAL AND INSTALLATION GUIDE



COMMERCIAL INSTALLATIONS

CAUTION - IMPORTANT SAFETY INSTRUCTIONS

NOTE: An auxiliary grounding connection point is provided for connecting the surge protection device (SPD) to the nearest available chassis or system ground (should the ground connection via the mounting brackets be deemed inadequate or redundant grounding is desired).

NOTE: The SPD is not polarity or line-load sensitive. The SPD will function equally well with cable connections or polarity reversed. All cable conductors are protected equally with respect to case ground.

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 equipment should also have AC mains protection because it is still vulnerable to transients on the AC mains. Omitting AC mains protection poses a continued threat of failures at the communication/sensor interface.

GROUNDING

The surge protection device (SPD) must be connected to the ground reference used by the system being protected. The SPD is intended to be mounted on a grounded flat metal surface and therefore may be grounded by means of its mounting brackets. Should additional grounding be required, the use of auxiliary grounding connector is acceptable. Ground wire lead lengths of more than 12" (30cm) are not recommended.

PERFORMANCE NOTE

The grounding wire must be kept as short as possible. Minimize length to the inch/centimeter and use a minimum of #14AWG (2.5mm²).

INDEPENDANT GROUNDS

Surge protection devices (SPD's) must not be connected to ground points that are independent of AC main or system ground.

1. Never install communication or sensor wiring during a lightning storm.
2. Ensure system voltage is not more than 36VDC (25vac) and system maximum current is not more than 4 amperes.
3. This surge protection device is intended for indoor or outdoor use. SPD may be used in remote applications directly exposed to weather.
4. This surge protection device is intended to be mounted on to a flat metal plate that is bonded to earth ground.
5. Ensure all user connections are tightly sealed to prevent contaminant ingress.
6. Read and understand all instructions prior to installation and operation.

INSTALLATION

The SLT-HEB Series surge protection device is easy to install. The following instructions clearly explains each step:

1. Mount the surge protection device to a grounded flat metal surface (see figure 1).

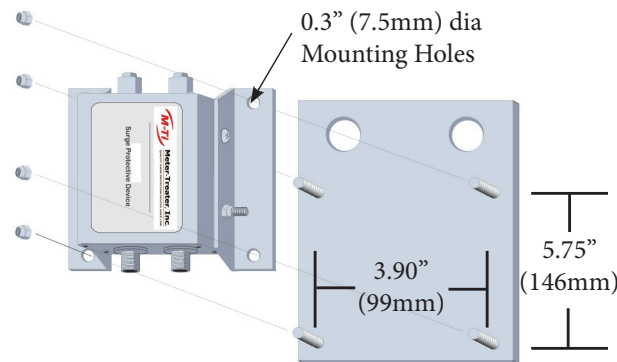
If the mounting location is ungrounded, connect a #14AWG (2.5mm²) wire from the surge protection device external grounding stud to the nearest available chassis or system ground.

2. Connect the load (equipment/sensor) side of the surge protective device to the communication equipment or sensor using straight cable hookups as short as possible.
3. Connect the incoming sensor or communication cable to the line (wire/cable) side of the surge protection device.
4. Test the system for proper operation. If problems occur, check wire/cable connections.

NOTE:

1. Be sure to follow the installation instructions exactly; if the surge protection device is improperly installed, the voltage and/or current limiting feature may be rendered inoperable.
2. The surge protection device is not Line/Load sensitive and is bi-directional in surge performance.
3. If you have any questions as to how your equipment is grounded, consult the equipment manufacturer's user manual(s).

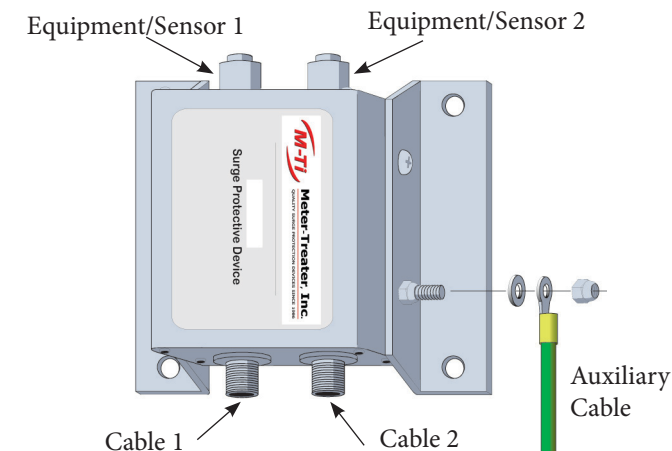
MOUNTING INFORMATION



SPD mounting example. Dual circuit shown. Single circuit mounting is identical.

Figure 1

CONNECTION DIAGRAM



Connection diagram showing a typical installation. Dual circuit model shown.

Figure 2