



# SST Series

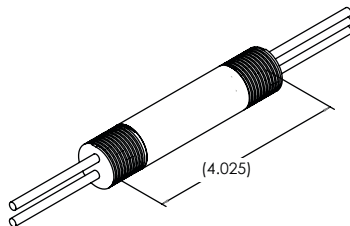
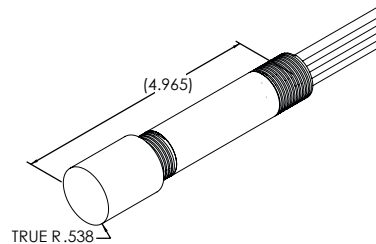
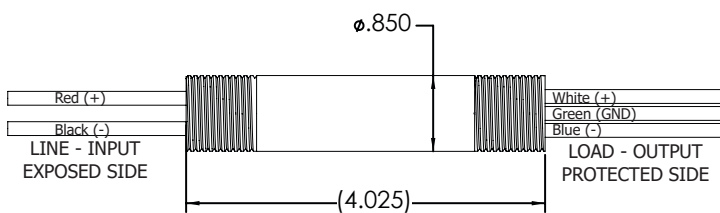
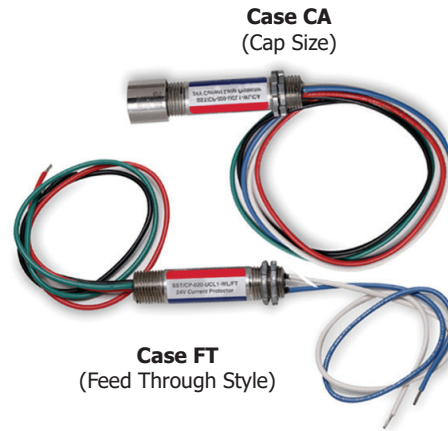
## 4-20mA Loop Surge Protection Device

**Transient Voltage Surge Suppression for discrete signaling 4-20mA protocols.** Units provide protection against any Transient Voltage that exceeds the nominal signaling voltage. Each line is **protected against surge** current impulses **up to 10kA**.

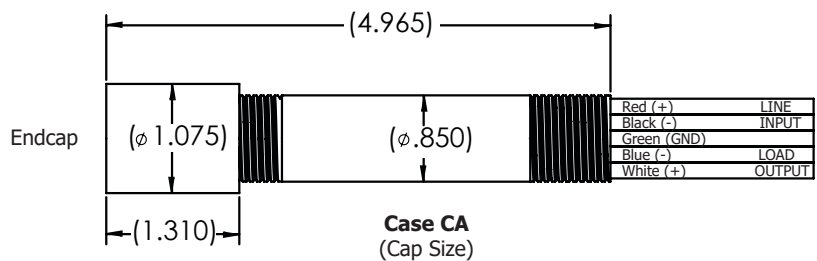
The **SST Series** is configured to **work in series or parallel** with the measurement/control lines being protected, diverting harmful transient energies while maintaining a tight clamp at the peak voltage. SST Signaling units **protect 1 circuit consisting of 2 wires** (1 pair) plus ground.

Units are designed to operate in a wide temperature range and are ideal for the protection of 4-20mA current loop transducers, and similar instrument/control applications.

Consult the factory with any special package and circuit performance requirements.



**Case FT**  
(Feed Through Style)



**Available Wire Sizes:** 14 AWG, 16 AWG (Standard), 18 AWG and 20 AWG  
**Available Ground Wire Sizes:** 16 AWG (Standard) and 18 AWG

*(Diagrams not drawn to scale)*

Product Specifications			
Max. Surge Current	10 kA per Wire	Enclosure	Stainless Steel 316L 1/2" NPT
Max. Operating Voltage	24 or 48 VDC	Max. Operating Temp	-55° to +85° C
Response Time	< 1 nanosecond	Connection Method	#16 AWG Tinned Copper Wires
Series Resistance	5.1 Ohms per Wire/Line	Warranty	15 Year Product Warranty
Modes of Protection	L-L and L-G		

Model Number	Clamp Voltage	Application	Max. Operating Voltage
SST/CP-020-UCL1-WL/CA	24V Capped	4 – 20mA loop	24 Vac
SST/CP-020-UCL2-WL/CA	48V Capped	4 – 20mA loop	48 Vdc
SST/CP-020-UCL1-WL/FT	24V Feed Through	4 – 20mA loop	24 Vdc
SST/CP-020-UCL2-WL/FT	48V Feed Through	4 – 20mA loop	48 Vdc

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 SST 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.

### **DANGER**

#### ***HAZARD OF ELECTRIC SHOCK, EXPLOSION OR ARC FLASH***

Thoroughly read and comprehend all instructions before commencing installation.

This equipment must be installed by qualified electrical personnel in accordance with all applicable codes which supersede these instructions.

Improper installation or misapplication of these devices may result in death or serious injury.

Failure to follow these instructions could result in damage to the electrical system(s) or related equipment.

Apply appropriate Personal Protective Equipment (PPE) and follow safe electrical work practices. See NFPA 70E

### **CAUTION**

#### ***HAZARD OF ELECTRIC SHOCK, EXPLOSION OR ARC FLASH***

Never install this unit if it has fallen, has been dropped or looks damaged in any way. Return device to factory for diagnostic testing.

### **WARNING**

#### ***HAZARD OF EQUIPMENT DAMAGE***

This device does NOT contain serviceable parts. Do NOT attempt to test this device, damage may occur. Any alterations, tampering or misuse or unauthorized repairs of this product will void it's original factory warranty.

Never install on an ungrounded system.

## WARRANTY INFORMATION

Meter-Treater, Inc. (MTI) warrants all SST 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.



**Meter-Treater, Inc.**

QUALITY SURGE PROTECTION DEVICES SINCE 1986

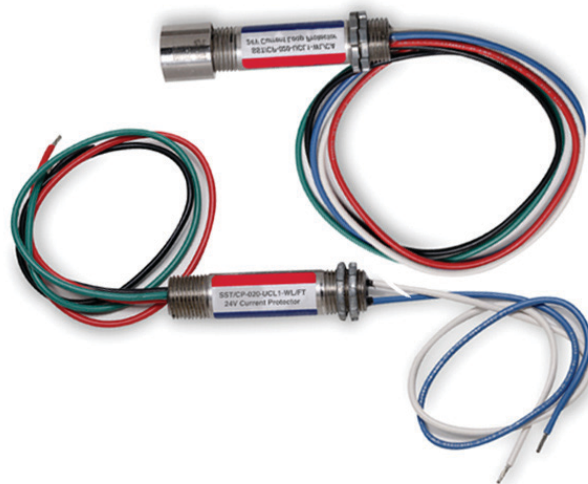
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# SST Series Surge Protection Device

## USER MANUAL AND INSTALLATION GUIDE



Intertek



SPECIAL COMMUNICATION PROTECTOR

COMMERCIAL INSTALLATIONS

## INSTALLATION

The SST Series of products is easy to install. The following instructions clearly explain each step:

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

### **SST Terminal Block Interface Models:**

1. Connect the Load (protected) Side of the SST Series product to your communications equipment. LOAD is equal to OUPUT
2. Connect your incoming (unprotected) cable to the Line (unprotected) Side of the SST Series product. LINE is equal to INPUT
3. Connect the unit's ground stud and secure it to the nearest available earth or chassis ground.

**NOTE:** For information as to how your equipment is grounded, consult the equipment's user manual.

## CAUTION

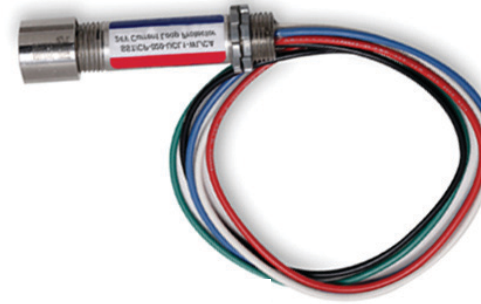
### IMPORTANT SAFETY INSTRUCTIONS

1. Never install communication wiring during a lightning storm.
2. This product 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.

## WIRING INFORMATION

The SST Series is offered in two configurations. (1) **Cap** version and (2) **Feed Through** version as shown below.

CASE P-CA  
Cap Style



LOAD Equals OUTPUT  
(White & Blue Wires)

LINE Equals INPUT  
(Red, Green & Black Wires)

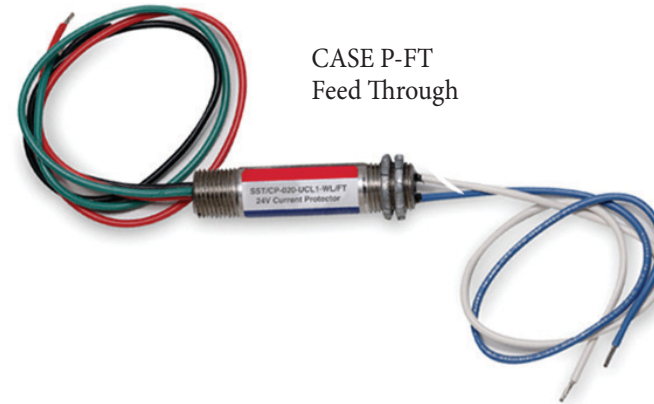
White to Red = Positive  
Blue to Black = Negative  
Green = Ground

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(White & Blue Wires)

LINE Equals INPUT  
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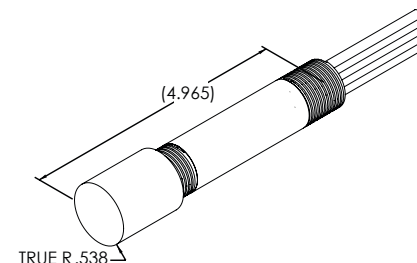
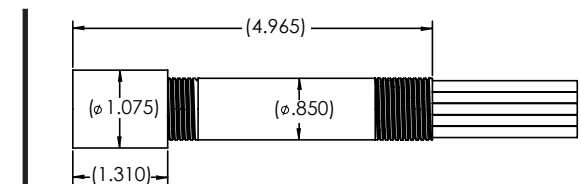
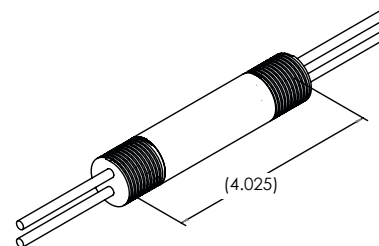
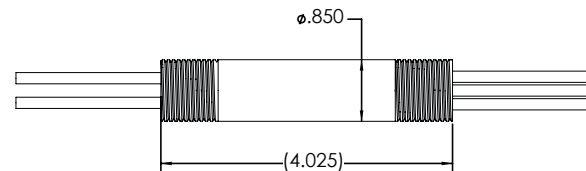
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Green = Ground

CASE P-FT  
Feed Through



## DIMENSIONS / MECHANICAL SPECS

- Enclosure Type: Stainless steel type 316L 1/2" conduit pipe and cap model with NPT threads
- Connection Method: #16AWG Tinned Copper wire provided



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