

**Transient Voltage
Surge Suppressors By:**

**ST-CL##-2x
4-20mA Current Loop**

Terminal Block Connected Current Loop Protection



Power Quality is our Only Business™

P.O. Box 330607
Ft. Worth, TX 76163
Phone: 817.483.8497
Fax: 817.572.2242
www.sinetamer.com

The ST-CL Series devices are designed to protect highly sensitive current loop circuits, signal lines and/or low speed data lines feeding: transducers, leak detectors, flow meters and a broad variety of similar sensory devices from damage due to surges. These devices are series connected using either terminal strips or wires provided (optional), making your installation a breeze. A ground lug is provided on the top of the unit to insure a low impedance ground discharge path.

The unique design of these devices makes them among the most versatile TVSS devices on the market with superior performance specs and a warranty that is second to none.

GENERAL	
Description:	Series wired transient voltage surge suppressor with Optimal Response Network™ circuitry for protection of current loop circuits, signal lines and other low speed data circuits.
Application:	Designed for use with data collection and switching circuits to protect data transmission system equipment from damaging transients generated between terminals and equipment in the data collection/transmission system.
Warranty:	25 Years Unlimited Free Replacement

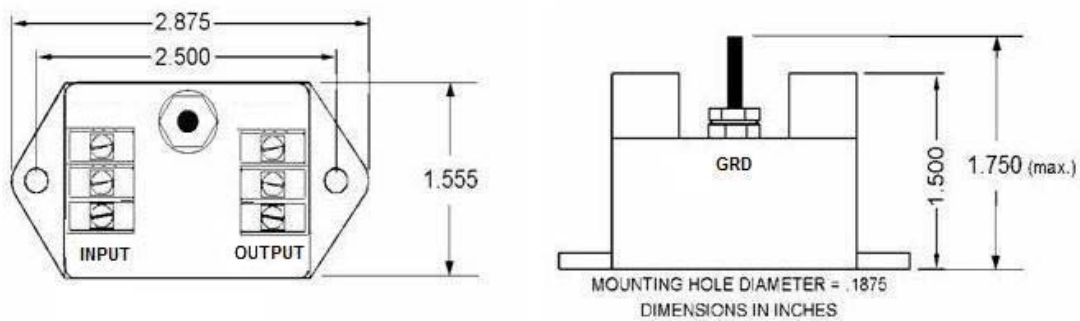
MECHANICAL	
Enclosure:	Plastic, UL 94 V-0
Mounting:	External mounting feet / DIN mounting feet (DIN option)
Connection Method:	Terminals strips (standard) or integrated wire leads (W option) located at the input and output sides of the device. [Terminal strip wire range: # 14-22 AWG], or # 18 AWG integrated wire leads provided (W option).
Grounding Method:	#10/32 Ground stud for # 6-12 AWG wire.
Shipping Weight:	< 1 lbs

CIRCUITRY	
Circuit Design:	Series wired hybrid design incorporating discrete all mode protection and utilizing our encapsulated Optimal Response Network™ design to provide lowest possible let-through voltages. All suppression circuits are encapsulated in our high dielectric compound to assure long component life and complete protection from the environment and/or vibration.
Protection Modes:	Dedicated protection components and circuitry for each mode. Discrete P-N (Normal Mode) and P-G or N-G (Common Mode)

PERFORMANCE	
Nominal Operating Voltages:	5 thru 140 V
Maximum Continuous Operating Current:	500 mA
Frequency Range:	DC to 2 MHz
Maximum Data Rate:	Up to 2 Mbps
Series Resistance:	5 Ohms per wire (10 Ohms loop)
Peak Surge Current per Pair:	P-N 10 kA, P-G 10 kA
Response Time:	< 1 ns

Let-Through Voltages Using ANSI/IEEE C62.45 & C62.41 Test Environment: Static, positive polarity. All voltages are peak ($\pm 10\%$).			
Model	Maximum Continuous Operating Voltages	Test Mode	B3/C1 Impulse Wave 6 kV, 3 kA
ST-CL5-2x	7.5 V 7.5 V	P-G P-N	< 20 < 40
ST-CL12-2x	15 V 15 V	P-G P-N	< 30 < 60
ST-CL24-2x	36 V 36 V	P-G P-N	< 40 < 80
ST-CL48-2x	62 V 62 V	P-G P-N	< 80 < 160
ST-CL140-2x	140 V 140 V	P-G P-N	< 160 < 320

(x = W, DIN, or DINW)



S-CL24-2 shown
Wired (W) and DIN (DIN) option not pictured

Actual unit may vary from picture