Transient Voltage Surge Suppressors By:

ST-CLW##A2Px-B

Conduit Type Current Loop Protection Device

ECS Energy Control Systems

Made in the USA

"Our Name Says It All"

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The ST-CLW##A2P-B is 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.

This device is mounted using the threaded ends of the pipe housing or a capped end is optional. It is grounded through use of the green ground wire attached to the unit, as well as its housing. The unique design of these devices makes them among the most versatile SPD 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 **O**ptimal **R**esponse **N**etwork™ 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**
Unit Listing:	UL497B

MECHANICAL

Enclosure:	316 stainless steel, with Cap (C suffix only)
Mounting:	½" NPT threaded housing.
Connection Method:	18 AWG tinned copper wire
Shipping Weight:	**<** 1 lbs

CIRCUITRY

Circuit Design:	Series wired hybrid design incorporating discrete all mode protection and utilizing our encapsulated **O**ptimal **R**esponse **N**etwork™ 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 L-L (Normal Mode) and L-G (Common Mode)

PERFORMANCE

Maximum Continuous Operating Voltage:	7.5 thru 200 V (varies by model, See Table)
Maximum Continuous Operating Current:	500 mA
Frequency Range:	DC to 20 MHz
Maximum Data Rate:	Up to 2 Mbps
Series Resistance:	5 Ohms per wire (10 Ohms per loop)
Peak Surge Current per Pair:	L-L 10 kA, L-G 10 kA

Because we are constantly seeking to improve our products, specifications are subject to change at any time.
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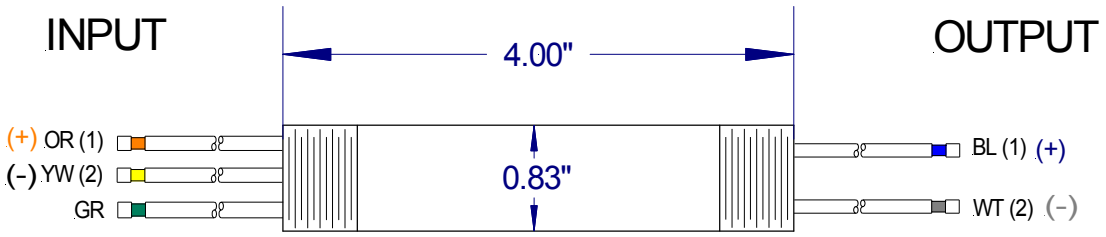
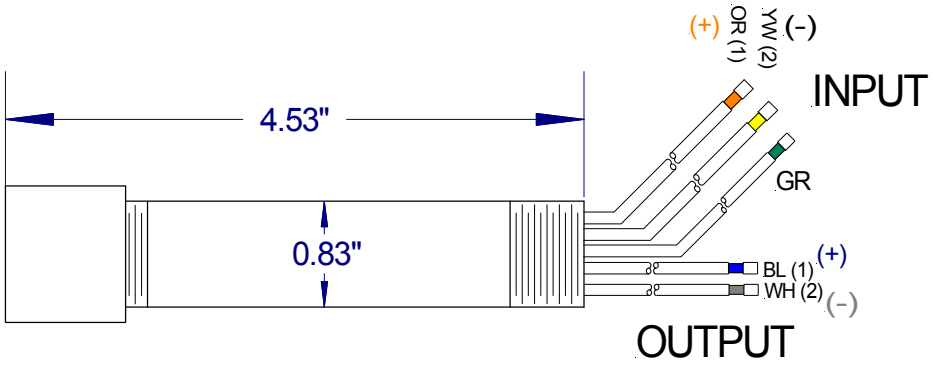
Table of Maximum Suggested Operating Limits, Data Rate & Additional Device Resistance						
Nominal System Operating Voltage (Vnom)	**CLW##A2P-B Operating Voltage Model Number**	**Maximum Continuous Operating Voltage (MCOV)**		**B3/C1 Impulse Wave 6 kV, 3 kA**		**Maximum Digital / Analog Data Rates Vs. Additional Series Resistance**
		Voltage (L-L)	Voltage (L-G)	Voltage (L-L)	Voltage (L-G)	2 Mbps / 20 MHz
0 > Vnom ≤ 6	ST-CLW5A2P-B	± 15 Vpk	± 7.5 Vpk	< 40	< 20	5 Ohms per line (10 Ohms per pair/loop)
6 > Vnom < 15	ST-CLW12A2P-B	± 48 Vpk	± 24 Vpk	< 60	< 30	5 Ohms per line (10 Ohms per pair/loop)
15 ≤ Vnom < 36	ST-CLW24A2P-B	± 72 Vpk	± 36 Vpk	< 80	< 40	5 Ohms per line (10 Ohms per pair/loop)
36 > Vnom < 54	ST-CLW48A2P-B	± 124 Vpk	± 62 Vpk	< 160	< 80	5 Ohms per line (10 Ohms per pair/loop)
54 > Vnom ≤ 140	ST-CLW140A2P-B	± 400 Vpk	± 200 Vpk	< 400	< 200	5 Ohms per line (10 Ohms per pair/loop)

C after P (CLW5A2PC-B) = Capped end, leave off for no cap





Actual unit may vary from picture

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