

# DP##Ax-B Data Line Models

Current Loop/Signal Line protection device with Discrete All-Mode Protection



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The DP Series devices are designed to protect data transmission, control, and signal line circuits. These devices are intended for installation as close to the electrical power source of the equipment as possible so as to allow for a common point for grounding.

This device is for circuits with up to 3 pair of signal lines connected via the detachable terminal strips provided, making installation a breeze. A ground lug is provided on the side of the unit to insure a low impedance ground discharge path.

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

<b>Description:</b>	Series wired transient voltage surge suppressor with encapsulated <b>Optimal Response Network™</b> circuitry for protection of data/signal type circuits.
<b>Application:</b>	Designed for use on data, signal, and control circuits to protect equipment from damaging transients generated between terminals and equipment in the data collection/transmission system.
<b>Warranty:</b>	<b>25 Years Unlimited Free Replacement</b>
<b>Unit Listing:</b>	UL497B

## MECHANICAL

<b>Enclosure:</b>	Plastic, UL 94-5VA
<b>Mounting:</b>	External mounting feet, DIN mounting foot (DIN option)
<b>Connection Method:</b>	Wire clamping detachable box terminals located at the input and output sides of the device. Wire size: Lines # 12-22 AWG, Ground # 6-12 AWG.
<b>Shipping Weight:</b>	< 1 lbs

## CIRCUITRY

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

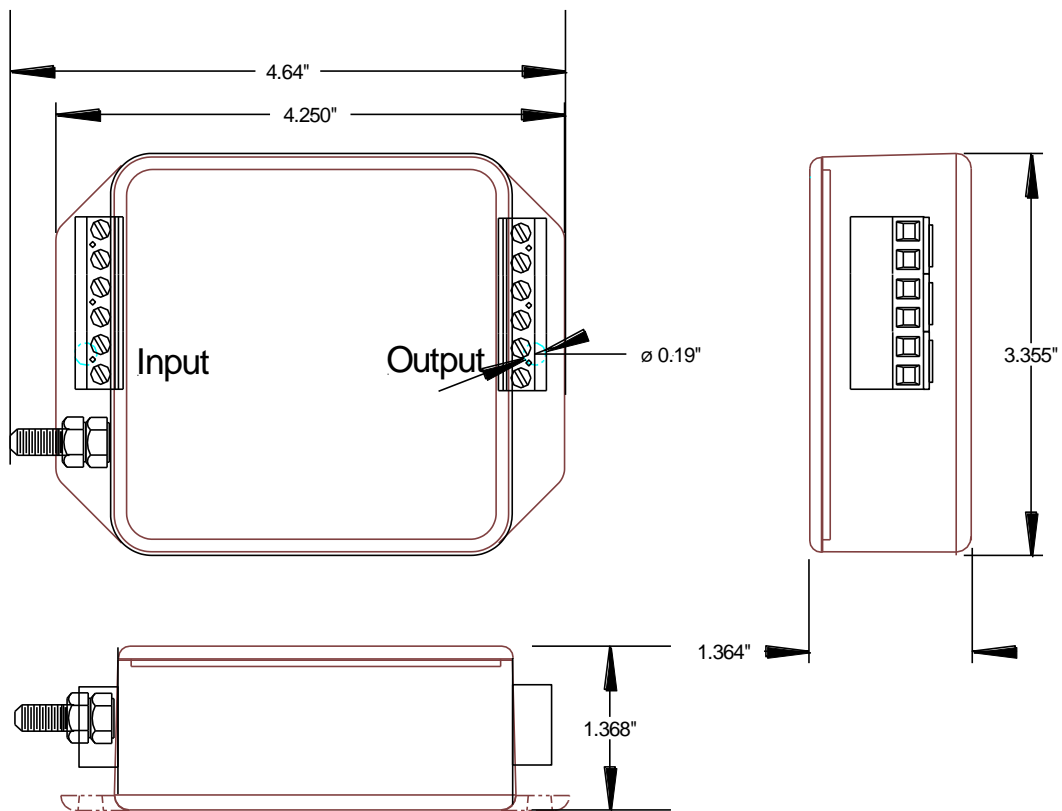
## PERFORMANCE

<b>Maximum Continuous Operating Voltage:</b>	See Table on back
<b>Maximum Continuous Operating Current:</b>	500 mA
<b>Series Resistance:</b>	5 Ohms per wire
<b>Maximum Data Rate:</b>	Up to 2 Mbps
<b>Peak Surge Current per Pair:</b>	L-L 10 kA, L-G 10 kA

**Let-Through Voltages Using ANSI/IEEE C62.45 & C62-41.1 / C62-41.2 Test Environment:  
Static, positive polarity. All voltages are peak ( $\pm 10\%$ ).**

Nominal System Operating Voltage (Vnom)	* DP##Ax-B Operating Voltage Model Number	Maximum Continuous Operating Voltage (MCOV)	Maximum Continuous Operating Current (MCOC)	Test Mode	Cat. B Impulse Wave 6 kV, 3 kA
$0 > V_{nom} \leq 6$	DP5Ax-B	7.5 V	500 mA	L-G L-L	< 20 < 20
$6 > V_{nom} < 15$	DP12Ax-B	24V	500 mA	L-G L-L	< 30 < 30
$15 \leq V_{nom} < 32$	DP24Ax-B	36 V	500 mA	L-G L-L	< 40 < 40
$32 \geq V_{nom} < 60$	DP48Ax-B	62 V	500 mA	L-G L-L	< 80 < 80
$60 \geq V_{nom} \leq 190$	DP140Ax-B	200 V	500 mA	L-G L-L	< 220 < 220

\*Notes: The lower case "x" is set to: 2, 4 or 6 to specify the number of terminals to be protected. Odd numbers of conductors require the use of the next higher even numbered model or an additional like model.



Actual unit may vary from picture