

## Features

- Formerly a Riedon™ product
- Current rating: 300 to 1200 A
- Standard tolerance  $\pm 0.25\%$
- 0.042 to 0.333 m $\Omega$  resistance
- Non-inductive metal element
- Manganin™ resistive element
- RoHS compliant\*

## Applications

- Frequency converters
- Current sensing

## RSI Series – Riedon™ DC Ammeter Shunts / Busbar Shunts by Bourns

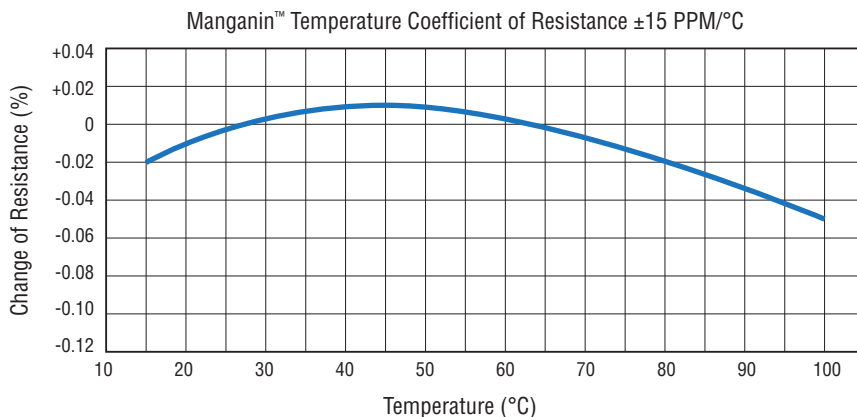
### Electrical Characteristics

Model	Rated Current (A)	Operating Current (A)	Resistance (m $\Omega$ )	
			50 mV Output	100 mV Output
RSI-300	300	200	0.167	0.333
RSI-400	400	266.67	0.125	0.250
RSI-500	500	333.33	0.100	0.200
RSI-600	600	400	0.083	0.167
RSI-750	750	500	0.067	0.133
RSI-800	800	533.33	0.0625	0.125
RSI-1000	1000	666.67	0.050	0.100
RSI-1200	1200	800	0.042	0.083

### Operating Current Derating

For continuous operation, it is recommended that shunts are not operated at more than two thirds (2/3) the rated current under normal conditions per IEEE standards for DC instrument shunts. At ambient temperatures above 40 °C, the current must be further derated to prevent damage.

### TCR Curve



Note: Applies to resistance element only

### Additional Information

Click these links for more information:



### General Specifications

Rated Output .....50 mV, 100 mV,  
Custom Available  
Voltage Tolerance .....  $\pm 0.25\%$  Standard  
Operating Temperature  
..... -40 °C to +70 °C  
Storage Temperature  
..... -55 °C to +80 °C

### Materials

Construction .....Flame resistant all-metal  
Resistance Element..... Manganin™  
Terminal Block .....Brass

### How to Order

Model **RSI - 300 - 50 - S**  
Rated Current (see table) \_\_\_\_\_  
100 = 100 A  
Voltage Output (mV) \_\_\_\_\_  
50 = 50 mV  
100 = 100 mV  
Packaging Option \_\_\_\_\_  
(blank) = Standard Bulk Packaging  
-S = Individual Box Packaging



**WARNING Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)**

\*RoHS Directive 2015/863, Mar 31, 2015 and Annex.

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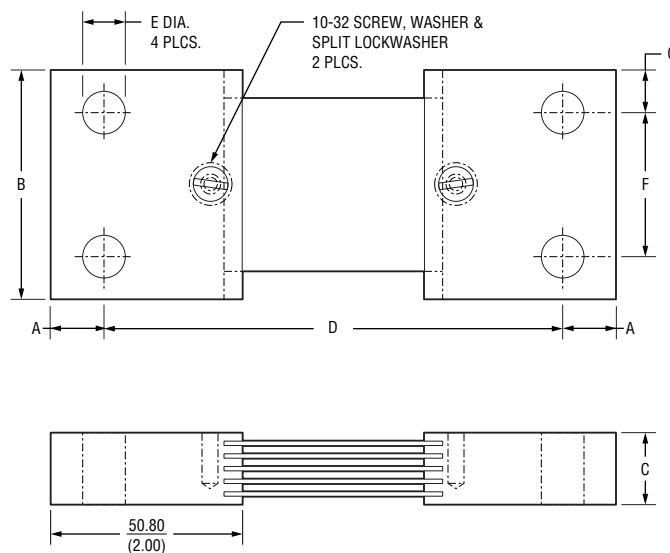
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**Product Dimensions****50 mV Output Models**

Model	A	B	C	D ± 0.89 (0.035)	E	F	G
RSI-300	14.29 (0.563)	44.45 (1.750)	12.70 (0.500)	120.65 (4.750)	11.12 (0.438)	25.40 (1.000)	9.53 (0.375)
RSI-400		50.80 (2.000)	19.05 (0.750)			31.75 (1.250)	9.53 (0.375)
RSI-500		50.80 (2.000)	19.05 (0.750)			31.75 (1.250)	9.53 (0.375)
RSI-600		50.80 (2.000)	19.05 (0.750)			31.75 (1.250)	9.53 (0.375)
RSI-750		57.15 (2.250)	19.05 (0.750)			38.10 (1.500)	9.53 (0.375)
RSI-800		60.33 (2.375)	19.05 (0.750)			38.10 (1.500)	11.12 (0.438)
RSI-1000		63.50 (2.500)	25.40 (1.000)			38.10 (1.500)	12.70 (0.500)
RSI-1200		73.03 (2.875)	25.40 (1.000)			38.10 (1.500)	17.46 (0.687)

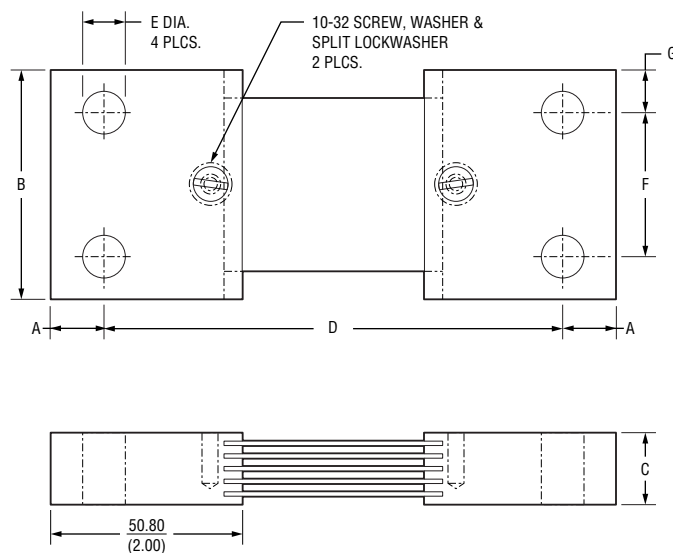
DIMENSIONS:  $\frac{\text{MM}}{(\text{INCHES})}$

Dimension tolerances:  $\pm 0.381 \text{ mm}$  ( $\pm 0.015 \text{ in.}$ ) for hole diameters. All other dimensions have a  $\pm 0.762 \text{ mm}$  ( $\pm 0.030 \text{ in.}$ ) tolerance

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**Product Dimensions****100 mV Output Models**

Model	A	B	C	D	E	F	G
RSI-300	14.29 (0.563)	44.45 (1.750)	12.70 (0.500)	168.28 (6.625)	11.12 (0.438)	25.40 (1.000)	9.53 (0.375)
RSI-400		50.80 (2.000)	19.05 (0.750)			31.75 (1.250)	9.53 (0.375)
RSI-500		50.80 (2.000)	19.05 (0.750)			31.75 (1.250)	9.53 (0.375)
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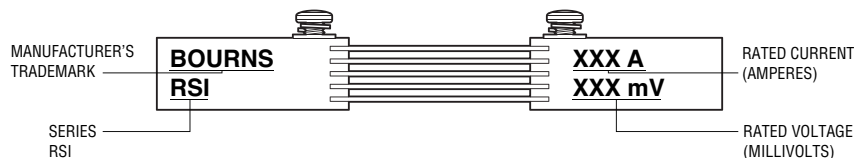
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**BOURNS®**

### Typical Part Marking



### Packaging Specifications

#### Standard Package Type

Model	Qty. per Package	Packaging
RSI	1	Wrapped in cellulose wadding

#### Individual Package Type

Model	Qty. per Package	Packaging (WxLxH)
RSI	1	Individual box (8.97 x 3.65 x 1.75 in.)

**BOURNS®**

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