



Features

- Formerly a Riedon™ product
- Current rating: 1 to 500 A
- Standard tolerance $\pm 0.1\%$
- Non-inductive metal element
- Manganin™ resistive element
- RoHS compliant*

Applications

- Power supplies
- Power converters
- Current measurements

RSN Series – Riedon™ DC Ammeter Shunts / Busbar Shunts by Bourns

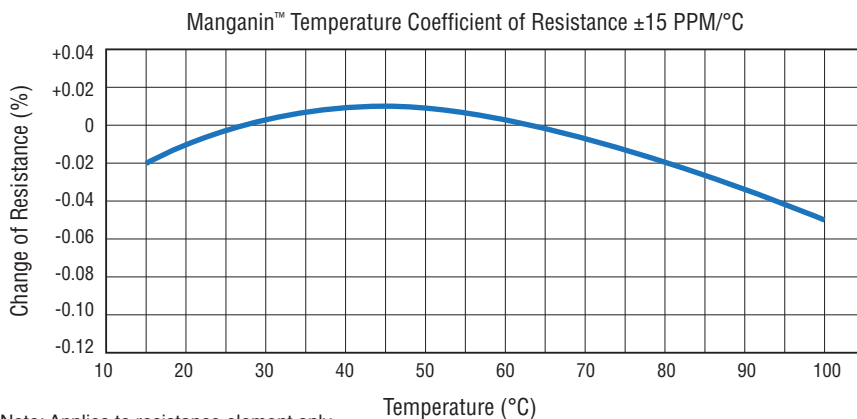
Electrical Characteristics

Model	Rated Current (A)	Operating Current (A)	Resistance (mΩ)	
			50 mV Output	100 mV Output
RSN-1	1	0.667	50	100
RSN-2	2	1.33	25	50
RSN-5	5	3.33	10	20
RSN-10	10	6.67	5.0	10
RSN-20	20	13.33	2.5	5.0
RSN-50	50	33.33	1.0	2.0
RSN-100	100	66.67	0.5	1.0
RSN-150	150	100	0.333	0.667
RSN-200	200	133.33	0.25	0.50
RSN-250	250	166.67	0.20	0.40
RSN-300	300	200	0.167	0.333
RSN-400	400	266.67	0.125	0.25
RSN-500	500	333.33	0.10	0.20

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



WARNING Cancer and Reproductive Harm
www.P65Warnings.ca.gov

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

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General Specifications

Rated Output50 mV, 100 mV,
 Custom Available
 Voltage Tolerance $\pm 0.1\%$ Standard
 Operating Temperature
-30 °C to +70 °C
 Storage Temperature
-55 °C to +80 °C

Materials

Base Flame resistant Bakelite
 Resistance Element..... Manganin™
 Terminal BlockBrass

How to Order

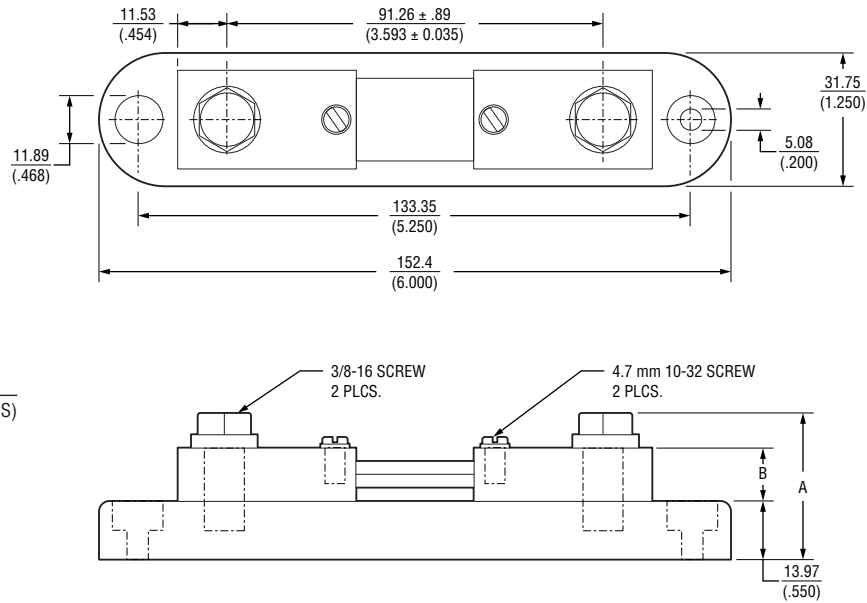
RSN - 1 - 50 B - S

Model _____
 Rated Current (see table) _____
 1 = 1 A
 Voltage Output (mV) _____
 50 = 50 mV
 100 = 100 mV
 Tolerance _____
 B = 0.1 %
 Packaging Option _____
 (blank) = Standard Bulk Packaging
 -S = Individual Box Packaging

RSN Series – Riedon™ DC Ammeter Shunts / Busbar Shunts by Bourns

BOURNS®

Product Dimensions



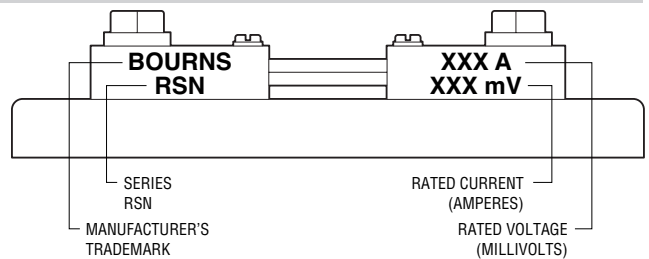
DIMENSIONS: $\frac{\text{MM}}{\text{(INCHES)}}$

50 or 100 mV Output Models

Model	A	B
RSN-1	35.05 (1.380) REF.	12.70 (0.500)
RSN-2		
RSN-5		
RSN-10		
RSN-20		
RSN-50		
RSN-100		
RSN-150		
RSN-200		
RSN-250	41.40 (1.630) REF.	19.05 (0.750)
RSN-300		
RSN-400		
RSN-500		

Dimension tolerances: ±0.381 mm (±0.015 in.) for hole diameters. All other dimensions have a ±0.762 mm (±0.030 in.) tolerance.

Typical Part Marking



Packaging Specifications

Standard Package Type

Model	Qty. per Package	Packaging
RSN	2	Wrapped in cellulose wadding

Individual Package Type

Model	Qty. per Package	Packaging (WxLxH)
RSN	1	Individual box (6.85 x 1.63 x 1.98 in.)

REV. 04/25

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