

## Features

- Formerly a Riedon™ product
- Base mounted shunt (available without baseplate)
- Current rating: 5 to 1200 A
- 50 mV, 100 mV or custom output
- Manganin™ resistive element
- RoHS compliant\*

## Applications

- Solar generators
- Wind power
- Heavy industry
- Electroplating
- Battery chargers
- Mining

## RS Series – Riedon™ Precision Current Resistor / DC Current Shunts by Bourns

### Electrical Characteristics

Model	Rated Current (A)	Operating Current (A)	Resistance (mΩ)	
			50 mV Output	100 mV Output
RSA-5	5	3.33	10.00	20.00
RSA-10	10	6.67	5.00	10.00
RSA-15	15	10	3.333	6.667
RSA-20	20	13.3	2.500	5.000
RSA-30	30	20	1.667	3.333
RSA-50	50	33.3	1.000	2.000
RSA-75	75	50	0.667	1.333
RSA-80	80	53.3	0.625	1.250
RSA-85	85	56.7	0.588	1.176
RSA-100	100	66.7	0.500	1.000
RSA-150	150	100	0.3333	0.6667
RSB-170	170	113	0.2941	0.5882
RSB-200	200	133	0.2500	0.5000
RSB-250	250	166	0.2000	0.4000
RSB-300	300	200	0.1667	0.3333
RSB-400	400	267	0.1250	0.2500
RSB-450	450	300	0.1111	0.2222
RSB-500	500	333	0.1000	0.2000
RSB-600	600	400	0.0833	0.1667
RSC-800	800	533	0.0625	0.1250
RSC-1000	1000	666	0.0500	0.1000
RSC-1200	1200	800	0.0417	0.0833

### Operating Current Derating

For continuous operation, it is recommended that shunts are not run 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.

### Additional Information

Click these links for more information:



### General Specifications

Rated Output .....50 mV, 100 mV,  
Custom Available  
Voltage Tolerance ..... ±0.25 % Standard  
Operating Temperature  
..... -40 °C to +60 °C  
Storage Temperature  
..... -55 °C to +80 °C  
Dielectric Strength .....750 VDC  
(Terminal Block to Base)  
Military Specification  
..... Built to A-A-55524,  
Commercial Version of MIL-S-61B  
Calibrated on Certified N.I.S.T  
Equipment

### Materials

Resistance Element..... Manganin™  
Terminal Block .....Brass  
Hardware .....Brass

### How to Order

**RSA - 100 - 50 - NB - S**  
Model \_\_\_\_\_  
Rated Current (see table) \_\_\_\_\_  
100 = 100 A  
Voltage Output (mV) \_\_\_\_\_  
50 = 50 mV  
100 = 100 mV  
Mounting \_\_\_\_\_  
(blank) = With Baseplate  
-NB = No Baseplate  
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.

Specifications are subject to change without notice. Users should verify actual device performance in their specific applications.

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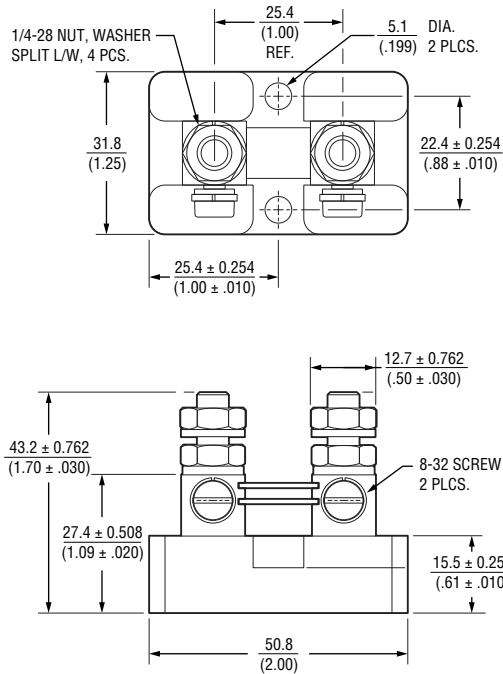
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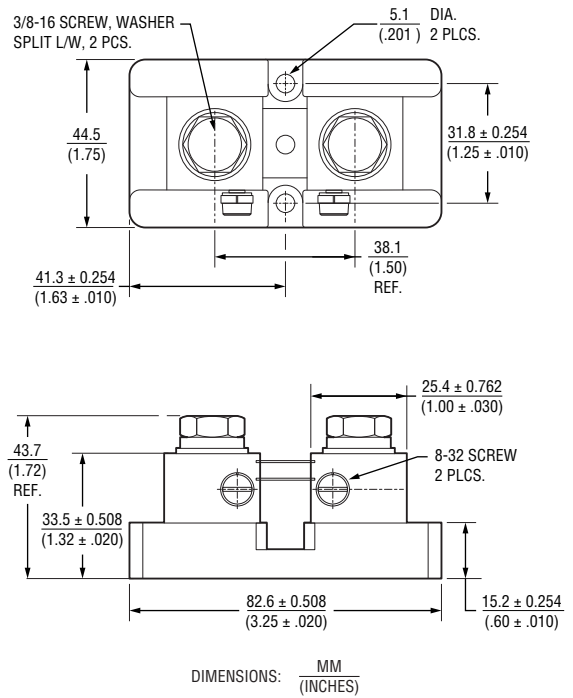
"Manganin" is a trademark of Isabellenhütte Heusler GmbH & Co.

## Product Dimensions

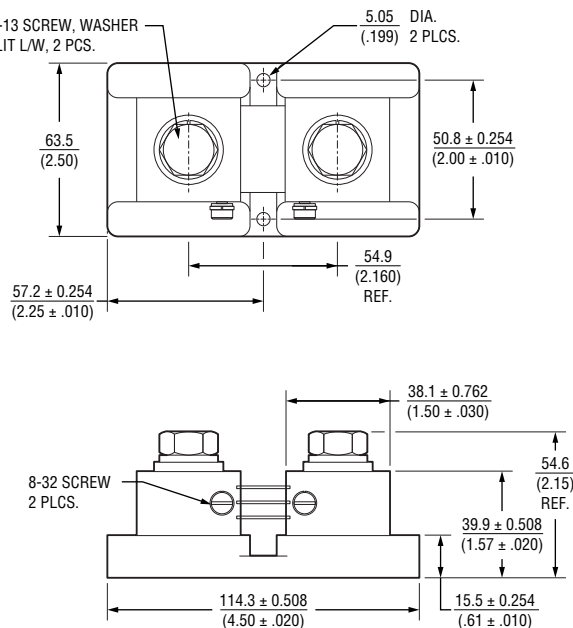
## RSA



## RSB



## RSC



Type	Fastener Torque	Weight
RSA	3-3.33 ft-lbs (4.1-4.5 Nm)	0.1 Kg
RSB	14-15 ft-lbs (19-20 Nm)	0.3 Kg
RSC	32-35 ft-lbs (35-48 Nm)	0.9 Kg
8-32 Output	14-15 in-lbs (1.6-1.7 Nm)	

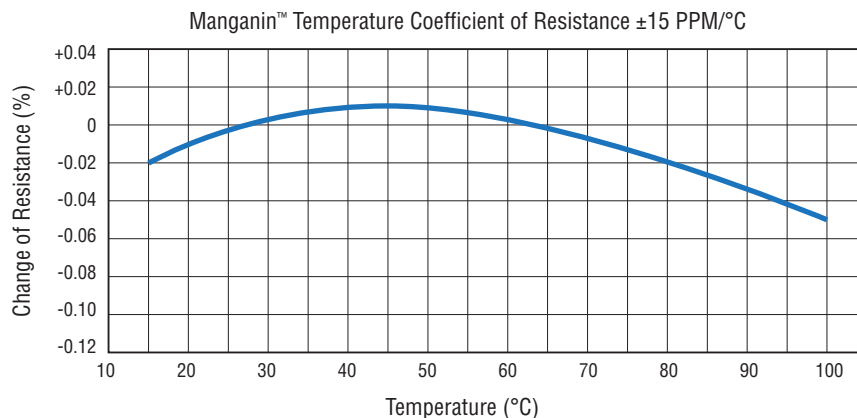
Dimension tolerances: ±0.381 mm (±0.015 in.) for hole diameters. All other dimensions have a ±0.762 mm (±0.030 in.) tolerance

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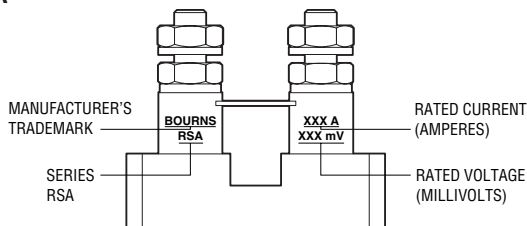
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## TCR Curve

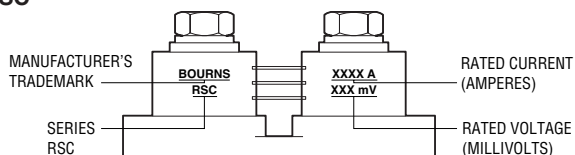


## Typical Part Marking

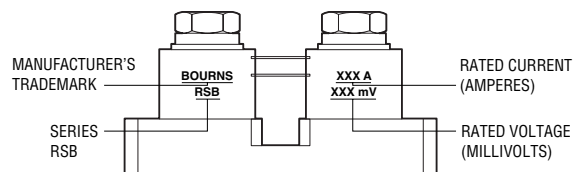
## RSA



## RSC



## RSB



## Packaging Specifications

## Standard Package Type

Model	Qty. per Package	Packaging
RSA	4	Wrapped in cellulose wadding
RSB	2	Wrapped in cellulose wadding
RSC	1	Wrapped in cellulose wadding

## Individual Package Type

Model	Qty. per Package	Packaging (WxLxH)
RSA	1	Individual box (2.85 x 1.63 x 2.13 in.)
RSB	1	Individual box (4.85 x 2.13 x 2.25 in.)
RSC	1	Individual box (5.35 x 2.88 x 2.68 in.)

**BOURNS®**Americas: Tel: +1 951-781-5500 • Email: [americus@bourns.com](mailto:americus@bourns.com)Mexico: Tel: +52-614-478-0400 • Email: [mexicus@bourns.com](mailto:mexicus@bourns.com)Asia: Tel: +886-2-2562-4117 • Email: [asiacus@bourns.com](mailto:asiacus@bourns.com)EMEA: Tel: +36 88 885 877 • Email: [eurocus@bourns.com](mailto:eurocus@bourns.com)[www.bourns.com](http://www.bourns.com)

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