



Company news

Reference: **RIE008**

Riedon goes green in renewable energy applications with low cost DC Current Shunts rated up to 1200A

Alhambra, California, USA, 2nd September

2014 – [Riedon](#), a specialist manufacturer of cutting-edge resistive solutions, is

introducing a range of UL listed, RoHS-

compliant, precision current shunts designed for DC ammeters and similar

instruments. The RS Series of off-the-shelf, base-mounted shunts offers current ratings from 5A to 1200A and combine low cost with the industry's shortest

lead-times while Riedon's custom design capability caters for more unique

requirements. These devices are targeted at applications in the renewables

energy market, such as solar arrays, wind turbines, and battery chargers for

energy storage e.g. in electric vehicles, as well as other uses in heavy industry,

electroplating and mining.



The principle of current measurement using a shunt resistor depends on

measuring the small voltage dropped across a precision resistor placed in

series with the load. Riedon offers standard parts that provide 50mV and

100mV outputs but can also provide custom output voltages. The very low

resistance values required for shunt resistors, 10mΩ at 5A and just 0.05mΩ at

1000A, are provided by Manganin® resistive elements. These are precision etched to a standard tolerance of $\pm 0.25\%$, with $\pm 0.1\%$ devices also available.

“Our in-house manufacturing and design capability is what sets Riedon apart from many other suppliers. We can compete on price and delivery while also supporting custom designs,” said Phil Ebbert, Riedon’s VP of Engineering, “And, as far as I know, Riedon is the only manufacturer to offer precision DC ammeter shunts that are UL approved and fully RoHS compliance”

Riedon’s RS range is divided into three different-sized body styles determined by current rating. All feature a 4-terminal design, which separates the heavy-duty load carrying connections from the voltage sensing terminals. Terminals are brass for the RSA (5 - 150A) and RSB (170 - 600A) parts but copper for the RSC (800, 1000 and 1500A) units. Operation is specified over a temperature range of -40°C to $+80^{\circ}\text{C}$ with a temperature coefficient of resistance (TCR) of $\pm 15 \text{ ppm}/^{\circ}\text{C}$ and a dielectric strength (terminal block to base) of 750VDC.

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About Riedon Inc.

For more than 45 years, since its formation in 1960, Riedon has been at the cutting edge of resistive solutions, supplying Wirewound, Thick & Thin Film, and also Foil resistive products to industries as diverse as Aerospace, Military and Instrumentation.

Riedon employs more than 130 team members worldwide and has manufacturing, technical support and sales facilities in the U.S., Europe, Asia, and Mexico.