

## SR Series - Current Shunt Resistors

Custom solutions are available. Call us with your specification requirements.

### HOW TO ORDER

**SR 1- 04 60 F Z M**

#### Packaging

#### TCR (ppm/°C)

Z =  $\pm 100$ ppm

#### Resistance Tolerance

F =  $\pm 1\%$

#### Rated Voltage

60mV = 60 100mV = 100

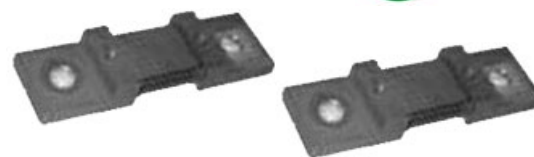
#### Rated Current

100A = 01 400A = 04 1200A = 12  
200A = 02 600A = 06 1500A = 15  
300A = 03 1000A = 10 2000A = 20

#### Body Style (refer to schematic table)

1, 2, or 3

#### Current Shunt Resistor Series



### FEATURES

Current shunt resistors are low resistance precision resistors used to measure AC or DC electrical currents by the voltage drop those currents create across the resistance. Sometimes called an ammeter shunt, it is a type of current sensor.

- 2 or 4 ports available
- Tight Tolerance of  $\pm 1\%$  and Tight TCR of  $\pm 100$ ppm

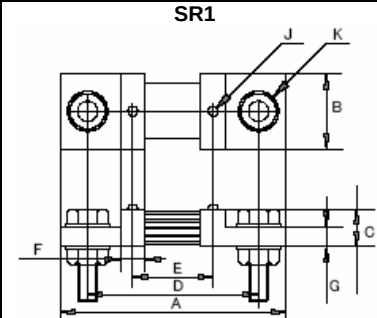
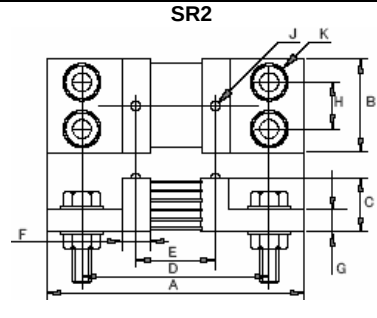
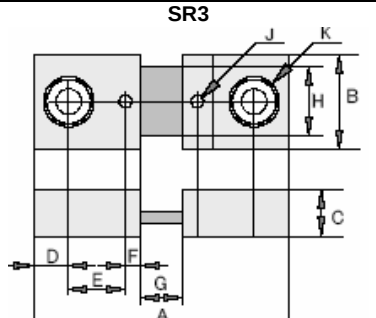
### APPLICATIONS

- Current Measurement of AC or DC electrical currents
- RV battery monitor and battery chargers
- Marine battery monitor and battery chargers
- Golf Cart, Wheelchair, Electric Bike batteries & chargers
- Digital panel meter Ammeter
- Solar Power, Wind Power generators batteries & chargers
- Electroplating and metal plating Amp Hour measurement
- Hand Radio & Amateur Radio base station equipment, battery monitoring and chargers

### ELECTRICAL CHARACTERISTICS

| Item                     | SR1-03                                          | SR1-04    | SR1-06     | SR1-10    | SR2-12     | SR2-15     | SR2-20    | SR3-01    | SR3-04    | SR3-06    | SR3-10    |
|--------------------------|-------------------------------------------------|-----------|------------|-----------|------------|------------|-----------|-----------|-----------|-----------|-----------|
| Rated Current            | 300A                                            | 400A      | 600A       | 1,000A    | 1,200A     | 1,500A     | 2,000A    | 100A      | 400A      | 600A      | 1000A     |
| Rated Output             | 60/100mV                                        | 60/100mV  | 60/100mV   | 60/100mV  | 60/100mV   | 60/100mV   | 60/100mV  | 60/100mV  | 60/100mV  | 6/1000mV  | 60/100mV  |
| $\Omega$ Milliohm        | 0.20/0.333                                      | 0.15/0.25 | 0.10/0.167 | 0.06/0.10 | 0.05/0.083 | 0.04/0.067 | 0.03/0.05 | 0.60/1.00 | 0.30/0.50 | 0.15/0.25 | 0.06/0.10 |
| Heat Resistance          | -                                               | -         | -          | -         | -          | -          | -         | 1.5       | 0.55      | 0.42      | 0.23      |
| Weight (Kg)              | -                                               | -         | -          | -         | -          | -          | -         | 0.24      | 0.24      | 0.24      | 0.56      |
| Tolerance                | $\pm 1\%$                                       |           |            |           |            |            |           |           |           |           |           |
| TCR (ppm/°C)             | $\pm 100$                                       |           |            |           |            |            |           |           |           |           |           |
| Operating & Storage Temp | $-55^{\circ}\text{C} \sim +125^{\circ}\text{C}$ |           |            |           |            |            |           |           |           |           |           |

### SCHEMATIC

|                                                                                     |                                                                                     |                                                                                      |                                                                                                               |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
|  |  |  | <p>Construction Materials</p> <p>Terminal: Cu plated Ni</p> <p>Resistance: Manganin</p> <p>Junction: Weld</p> |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|

### DIMENSIONS ( $\pm 0.2$ mm)

| Series | A   | B  | C  | D   | E  | F  | G  | H  | J    | K        |
|--------|-----|----|----|-----|----|----|----|----|------|----------|
| SR1-03 | 155 | 45 | 20 | 115 | 60 | 15 | 10 | -  | 2-M5 | 2-M12-50 |
| SR1-04 | 155 | 45 | 20 | 115 | 60 | 15 | 10 | -  | 2-M5 | 2-M12-50 |
| SR1-06 | 175 | 45 | 30 | 135 | 60 | 15 | 15 | -  | 2-M5 | 2-M12-50 |
| SR1-10 | 175 | 45 | 30 | 135 | 60 | 15 | 15 | -  | 2-M5 | 2-M12-50 |
| SR2-12 | 185 | 70 | 40 | 140 | 67 | 22 | 20 | 35 | 2-M5 | 2-M12-50 |
| SR2-15 | 185 | 70 | 40 | 140 | 67 | 22 | 20 | 35 | 2-M5 | 2-M12-50 |
| SR2-20 | 215 | 80 | 45 | 160 | 70 | 25 | 20 | 40 | 2-M5 | 2-M12-50 |
| SR3-01 | 100 | 30 | 10 | 15  | 22 | 8  | 10 | 13 | 2-M4 | 2-M12    |
| SR3-04 | 100 | 30 | 10 | 15  | 22 | 8  | 10 | 26 | 2-M4 | 2-M12    |
| SR3-06 | 100 | 30 | 10 | 15  | 22 | 8  | 10 | 26 | 2-M4 | 2-M12    |
| SR3-10 | 100 | 70 | 20 | 15  | 22 | 8  | 10 | 65 | 2-M4 | 2-M12    |