

# Model RS-A and RSS-A **Open Loop Hall Effect**

Current Sensors

## Description

The RS/RSS-A Series is a current sensor that accurately measures AC and DC currents and provides electrical isolation between the circuit being measured and the output of the sensor. One package provides nominal current measurements from 100 to 1000 amps and has the versatility to be panel or bulkhead mounted.



## Features

- High accuracy
- Wide frequency range
- Excellent linearity
- Safety isolation
- Heavy duty industrial housing
- Panel or bulkhead mounting
- Single or dual supply voltage option

## Applications

- Motor controllers and drives
- Battery supplied equipment
- Switch mode and uninterruptable power supplies
- Welding equipment

## Specifications

Electrical Data	Nominal Range	Measurement Range	Output (mV/A)	
			RS	RSS
RS/RSS - 1000-A .....	1000 Amps	±1000 Amps	4.00	1.60
RS/RSS - 600-A .....	600 Amps	±1000 Amps	6.67	2.67
RS/RSS - 500-A .....	500 Amps	±1000 Amps	8.00	3.20
RS/RSS - 400-A .....	400 Amps	±1000 Amps	10.00	4.00
RS/RSS - 300-A .....	300 Amps	±750 Amps	13.33	5.33
RS/RSS - 200-A .....	200 Amps	±500 Amps	20.00	8.00
RS/RSS - 100-A .....	100 Amps	±250 Amps	40.00	16.00

Overload Capacity .....	25,000 Amp Turns
Linearity .....	0.75% of Nominal
RS-A Supply Voltage .....	±12 to ±18 VDC
RSS-A Supply Voltage.....	+12 to +18 VDC
Isolation Between Primary and Output.....	3KV RMS 50Hz for 1 minute
RS-A Zero Offset (at +25°C) .....	0.000 V ±10mV max
RSS-A Zero Offset (at +25°C) .....	6.000 V ±10mV max
Zero Offset Drift .....	±1.0mV/°C max
Gain Variation .....	±0.05%/°C
Response Time .....	<3µs
di/dt Accurately Followed .....	>50 A/µs
Frequency Range .....	DC to 25 kHz, Core eddy current heating is produced when (RMS current x frequency) > 400,000

## General Information

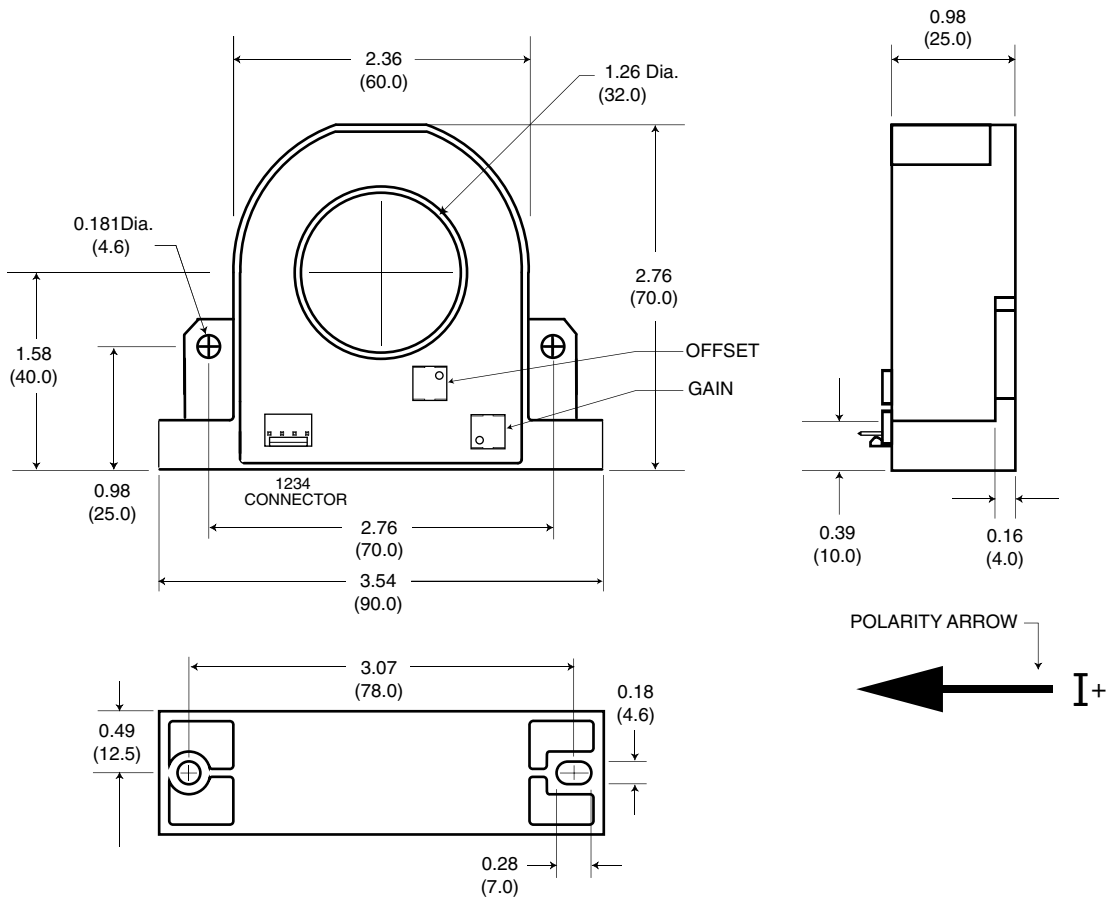
Operating Temperature .....	-40°C to +85°C
Extended Operating Temperature .....	-40°C to +105°C
Storage Temperature .....	-55°C to +125°C
Current Consumption .....	30 mA max
Output Burden .....	10 mA max
Enclosure.....	UL94-VO Self Extinguishing Plastic
Insulation Resistance .....	500M Ohm min at 500V DC
Weight .....	240g nominal



# Mechanical Dimensions

All dimensions are in inches (millimeters)

## Models **RS-A** and **RSS-A**



Mating Connector: Molex: Terminal 08-50-0114 (4 pieces), Connector 22-01-2047 (1 piece)

Connection Chart

PIN	RS signals	RSS signals
1	+12 to +18Vdc	+12 to +18Vdc
2	-12 to -18Vdc	+6Vdc REF.
3	Output	Output
4	Ground	Ground

**Note:** 1. Tolerance is  $\pm 0.01"$  ( $\pm 0.25$  mm)

2. Due to continuous process improvement, all specifications are subject to change without notice.

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