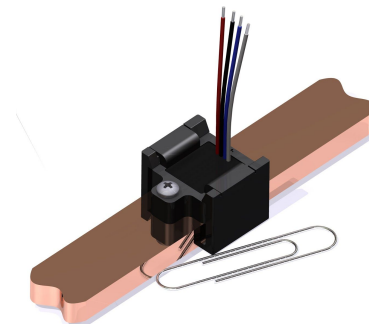


## ISB Current Sense Transducers (-802)

For the electronic measurement of AC and DC Signals



### Part Number Table

	$I_P$	Output Slope*
ISB-100-A-802	+/- 100	20.000 mV/A
ISB-175-A-802	+/- 175	11.429 mV/A
ISB-300-A-802	+/- 300	6.667 mV/A
ISB-425-A-802	+/- 425	4.706 mV/A

### Extended Range

	$I_{PE}$	
ISB-550-A-802	+/- 550	3.636 mV/A
ISB-670-A-802	+/- 670	2.985 mV/A

$I_P$  &  $I_{PE}$

See table above

Measurable Current Range

$I_P$  or  $I_{PE}$

Supply Voltage ( $V_{dd}$ )

5V(+/- 0.5 V)@12mA

Secondary Output Voltage

Ratiometric to Input

Output at + $I_P$

90% of  $V_{dd}$

Output at - $I_P$

10% of  $V_{dd}$

Output at 0A

50% of  $V_{dd}$

Reference Output

50% of  $V_{dd}$

Max. Clamped Output, High

98% of  $V_{dd}$

Max. Clamped Output, Low

10% of  $V_{dd}$

Output Current

+/- 2 mA

Response Time

3  $\mu$ S

### Accuracy

Accuracy ( $I_P$ )**	<= 0.6 %
Accuracy ( $I_{PE}$ )	<= 2.5 %
Linearity Error	<= 0.1 %
Linearity Error ( $I_{PE}$ )	<= 1.0%
DC Offset Accuracy	<= 10 mV; <= 0.25 %
DC Offset Hysteresis	<= 10 mV; <= 0.25 %
DC Offset Thermal Drift	<= 0.1 mV/°C

### Notes

\* All specifications at 25°C and assumes 5V<sub>DD</sub>.

\* Specifications dependent on mechanical attachment.

\* Specifications are % full scale. Output slope is dependent on V<sub>DD</sub>.

\*\* We recommend mounting the sensors with non-magnetic screws (e.g. stainless steel, brass, bronze, copper and aluminum) for maximum accuracy.

### Features

- ◆ Fast Response Time
- ◆ Small Size
- ◆ Easy Busbar Mounting
- ◆ UL Rated Lead Wire Connection

### IS Family Features

- ◆ Factory Programmable
- ◆ Customizable Current Range
- ◆ Wideband DC to 200 kHz
- ◆ Analog Output

### Applications

- ◆ DC/AC Converters
- ◆ DC/DC Converters
- ◆ Battery Management
- ◆ AC and DC Motor Drives
- ◆ Welding Applications
- ◆ Solar Applications

### Connection Information

Wire 1 (Red) - V<sub>DD</sub> (Supply)

Wire 2 (Black) - Output

Wire 3 (Blue) - Reference Output

Wire 4 (White) - V<sub>SS</sub> (Ground)

### Analog Output Notes

1. For pull down resistor is between black and white wire
2. For pull up resistor is between black and red wire

### Lead Wire

22 AWG; Stranded

UL3239; , 3kV Rated

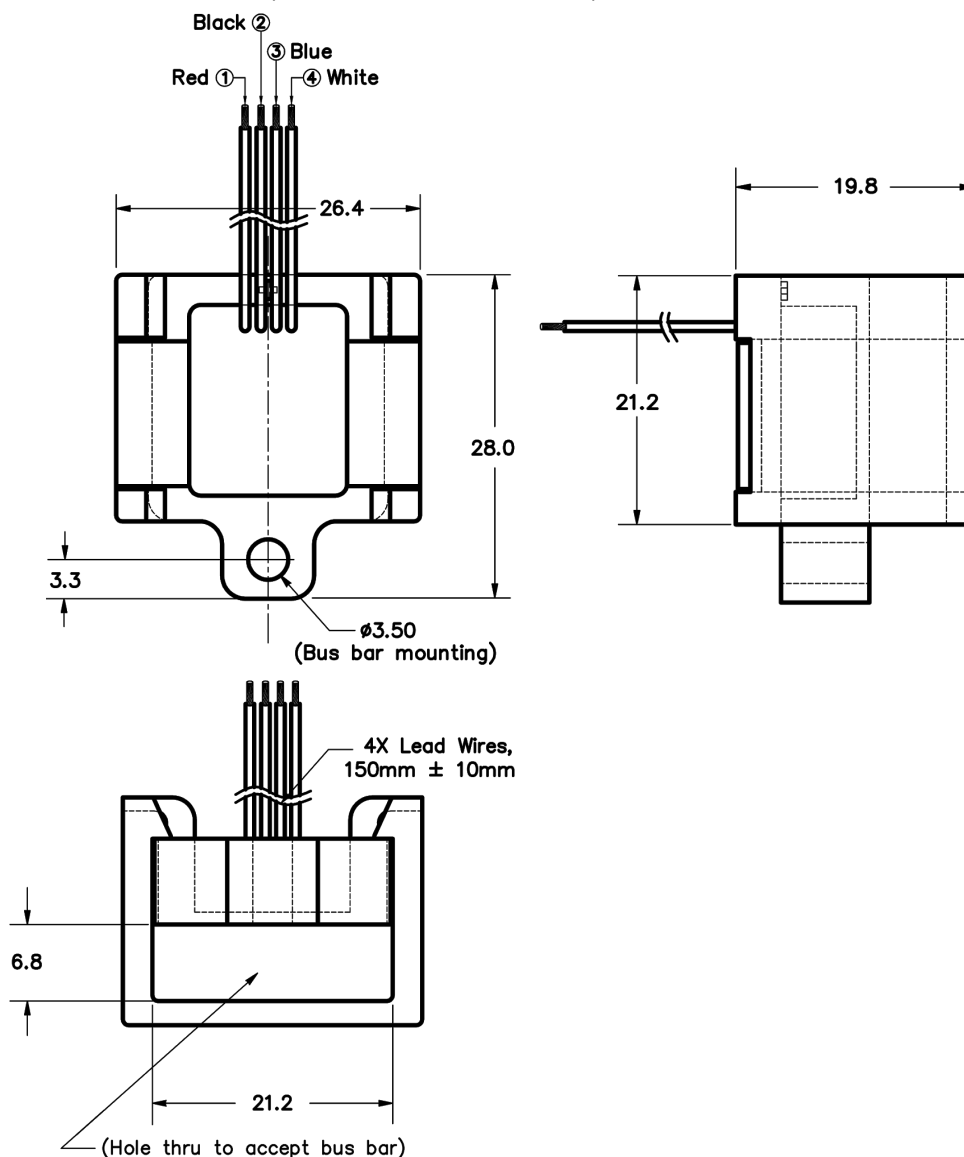
### General Data

Ambient Operating Temperature	-40 to +105 °C
Ambient Storage Temperature	-40 to +105 °C
RMS Voltage for AC Insulation	4.3 kV
Creepage Distance	> 140 mm
Clearance Distance	> 140 mm
Safety Standard	EN50178
EMC Standard	EN61000
CTI	600 V
UL File	Pending

### Absolute Maximums

Overvoltage $V_{DD}$ Protection.	+10 V
Reverse $V_{DD}$ Protection	-10 V
Output Voltage Max.	+10 V
Output Current Max.	+/- 70 mA
Reverse Output Voltage Max.	- 0.3 V
Reverse Output Current Max.	-50 mA

### Dimensions: ISB Series (in mm, 1mm = 0.0394 inch)



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