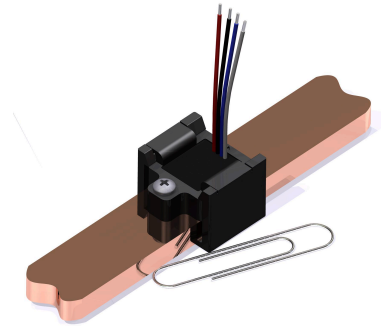


ISB Current Sense Transducers (-802)

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}	Output Slope*
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 μ S

Accuracy	
Accuracy (I_P)**	<= 0.6 %
Accuracy (I_{PE})	<= 2.5 %
Linearity Error (I_P)	<= 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/ $^{\circ}$ C

Notes

- * All specifications are at 25 $^{\circ}$ C and assume 5 V_{DD} .
- * Specifications dependent on mechanical attachment.
- * Specifications are % full scale. Output slope is dependent on V_{DD} .

Features

- ◆ Fast Response Time
- ◆ Small Size
- ◆ Snap-on 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_{DD} (Supply)
- Wire 2 (Black) - Output
- Wire 3 (Blue) - Reference Output
- Wire 4 (White) - V_{SS} (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
Hi-Pot Rating	4300 V _{AC}
Creepage Distance	> 130 mm
Clearance Distance	> 130 mm
Safety Standard	EN50178
EMC Standard	EN61000
CTI	600 V
UL File	E477313

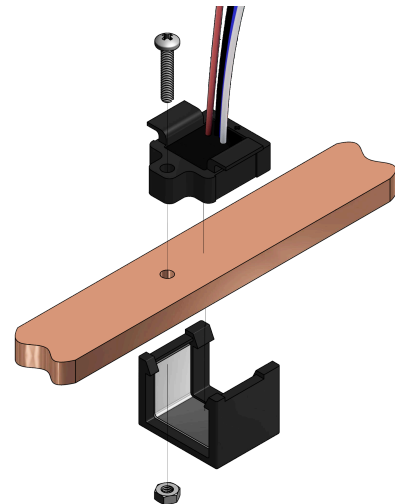
Absolute Maximums

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

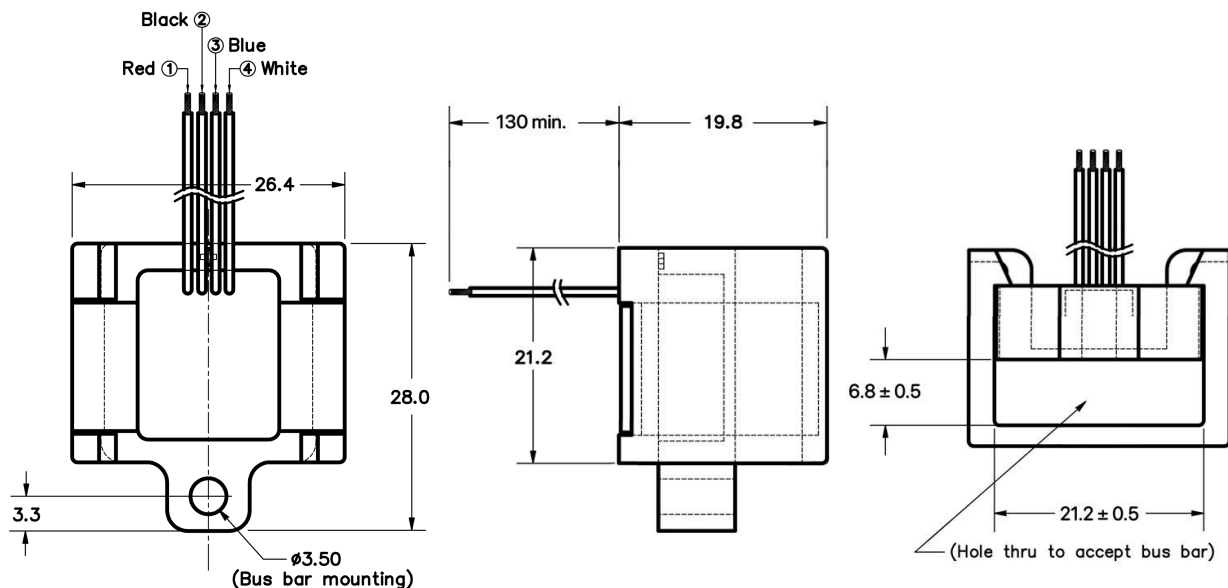
Snap-On Busbar Mounting

The two-piece housing allows quick mounting on busbars, with integrated shielding in the lower housing to help minimize external magnetic field interference.

The top portion should be secured to the busbar with a non-magnetic screw materials such as stainless steel, brass, bronze, copper, or aluminum.



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



Tolerances: XX.X = ± 0.3 mm (Unless specified)