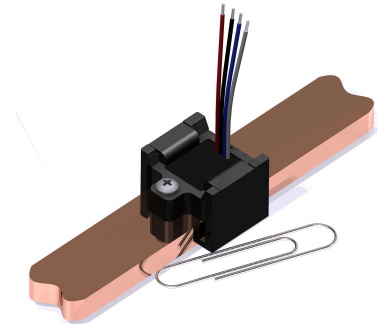


ISB Current Sense Transducers (-802)

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 at 25 $^{\circ}$ C and assumes 5V $_{DD}$.
- * Specifications dependent on mechanical attachment.
- * Specifications are % full scale. Output slope is dependent on V_{DD} .
- ** 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_{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	> 140 mm
Clearance Distance	> 140 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

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

