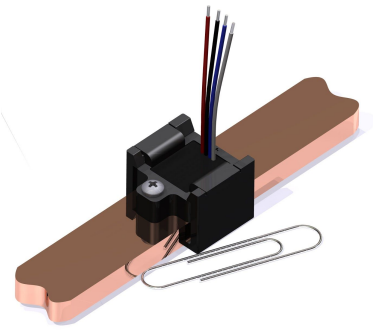
ISB Current Sense Transducers (-802)

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 +Ip	90% of V_{dd}
Output at -Ip	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 µS

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 $5V_{DD}$.
* 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		Absolute Maximums	
Ambient Operating Temperature	-40 to +105 °C	Overvoltage V_{DD} Protection.	+10 V
Ambient Storage Temperature	-40 to +105 °C	Reverse V_{DD} Protection	-10 V
RMS Voltage for AC Insulation	4.3 kV	Output Voltage Max.	+10 V
Creepage Distance	> 140 mm	Output Current Max.	+/- 70 mA
Clearance Distance	> 140 mm	Reverse Output Voltage Max.	- 0.3 V
Safety Standard	EN50178	Reverse Output Current Max.	-50 mA
EMC Standard	EN61000		
CTI	600 V		
UL File	Pending		

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