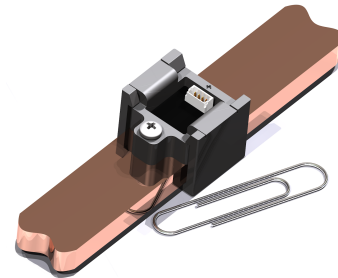


ISB Current Sense Transducers (-800)

For the electronic measurement of AC and DC Signals



Part Number Table	I_p	Output Slope*
ISB-100-A-800	+/- 100	20.000 mV/A
ISB-175-A-800	+/- 175	11.429 mV/A
ISB-300-A-800	+/- 300	6.667 mV/A
ISB-425-A-800	+/- 425	4.706 mV/A
Extended Range	I_{PE}	
ISB-550-A-800	+/- 550	3.636 mV/A
ISB-670-A-800	+/- 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	<= 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

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

- Pin 1 - V_{DD} (Supply)
- Pin 2 - Reference Output
- Pin 3 - Output
- Pin 4 - V_{SS} (Ground)

Analog Output Notes

1. For pull down resistor is between pin 3 and pin 4
2. For pull up resistor is between pin 3 and pin 1

Required Mating Connector

- JST #SHR-04V-S-B
- JST #SSH-003T-P0.2 (Contact) x4

General Data

Ambient Operating Temperature	-40 to +85 °C
Ambient Storage Temperature	-40 to +90 °C
RMS Voltage for AC Insulation	4.3 kV
Creepage Distance	8.5 mm
Clearance Distance	8.5 mm
Safety Standard	EN50178
EMC Standard	EN61000
CTI	600 V

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)

