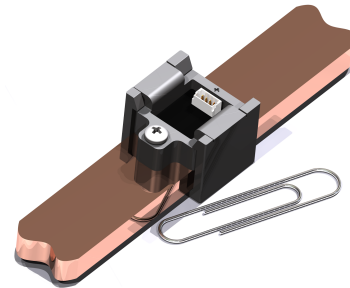


ISB Series Current Sense Transducers

For the electronic measurement of AC and DC Signals



Part Number Table

Part Number	I_p	Output Slope*
ISB-100-A-600	+/- 100	20.000 mV/A
ISB-175-A-600	+/- 175	11.429 mV/A
ISB-300-A-600	+/- 300	6.667 mV/A
ISB-425-A-600	+/- 425	4.706 mV/A

Extended Range

ISB-550-A-600	+/- 550	3.636 mV/A
ISB-670-A-600	+/- 670	2.985 mV/A

I_p	See table above
Measurable Current Range	I_p
Supply Voltage (V_{DD})	5V(+/- 0.5V)@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}
Clamped Output High	90% of V_{DD}
Clamped Output Low	10% of V_{DD}
Output Current	+/- 2 mA
Response Time	8 μ S

Accuracy

Accuracy (I_{PL})	<= 0.6 %
Accuracy (I_{PE})	<= 2.5 %
Linearity Error	<= 0.1 %
Linearity Error (extended range)	<= 0.1 %
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
- * Specifications dependent on mechanical attachment
- * Specifications are % full scale
- * Output slope is dependent on V_{DD} . Specifications above assumes 5 V_{DD}

Features

- ◆ Fast Response Time
- ◆ Small Size
- ◆ Easy Busbar Mounting

IS Family Features

- ◆ Factory Programmable
- ◆ Customizable Current Range
- ◆ Temp. Output for Compensation
- ◆ Wideband DC to 90kHz
- ◆ Analog, PWM or Digital Output
- ◆ Programmable 17 bit ID Number

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 - Output
- Pin 3 - Temperature
- Pin 4 - V_{SS} (Ground)

Analog Output Notes

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

Connector Part Number

FCI 10114826-00004LF

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.	+20 V
Reverse V_{DD} Protection	-10 V
Output Voltage Max.	+10 V
Output Current Max.	+/- 300 mA
Reverse Output Voltage Max.	-0.3 V
Reverse Output Current Max.	-50 mA

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

