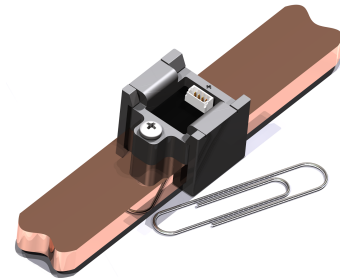


## ISB Series Current Sense Transducers

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
<b>Extended Range</b>		
ISB-550-A-800	+/- 550	3.636 mV/A
ISB-670-A-800	+/- 670	2.985 mV/A

$I_p$	See table above
Measurable Current Range	$I_p$
Supply Voltage ( $V_{DD}$ )	5 V (+/- 0.5 V)
Supply Current	7 - 12 mA
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 $V_{DD}$
Clamped Output High	90% of $V_{DD}$
Clamped Output Low	10% of $V_{DD}$
Output Current	+/- 2 mA
Response Time	3 $\mu$ S

### Accuracy

Accuracy ( $I_{PL}$ )	$\leq$ 0.6 %
Linearity Error	$\leq$ 0.1 %
DC Offset Accuracy	$\leq$ 10 mV
	$\leq$ 0.25 %
DC Offset Hysteresis	$\leq$ 10 mV
	$\leq$ 0.25 %
DC Offset Thermal Drift	$\leq$ 0.1 mV/ $^{\circ}$ C

### Notes

- \* All specifications at 25 $^{\circ}$ 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
- ◆ Wideband DC to 200 kHz
- ◆ 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 - Reference Output
- 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.	+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)

