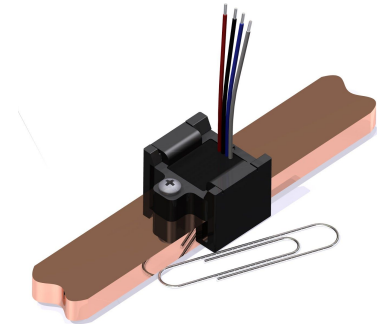


ISB Series Current Sense Transducers

For the electronic measurement of AC and DC Signals



Part Number Table

Part Number	I_p	Output Slope*
ISB-100-A-606	+/- 100	20.000 mV/A
ISB-175-A-606	+/- 175	11.429 mV/A
ISB-300-A-606	+/- 300	6.667 mV/A
ISB-425-A-606	+/- 425	4.706 mV/A
Extended Range		
	I_{PE}	
ISB-550-A-606	+/- 550	3.636 mV/A
ISB-670-A-606	+/- 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}
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_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/ $^{\circ}$ C

Notes

- * All specifications at 25 $^{\circ}$ C and assumes 5 V_{DD} .
- Specifications dependent on mechanical attachment.
- Specifications are % full scale.
- Output slope is dependent on V_{DD} .

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 90 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

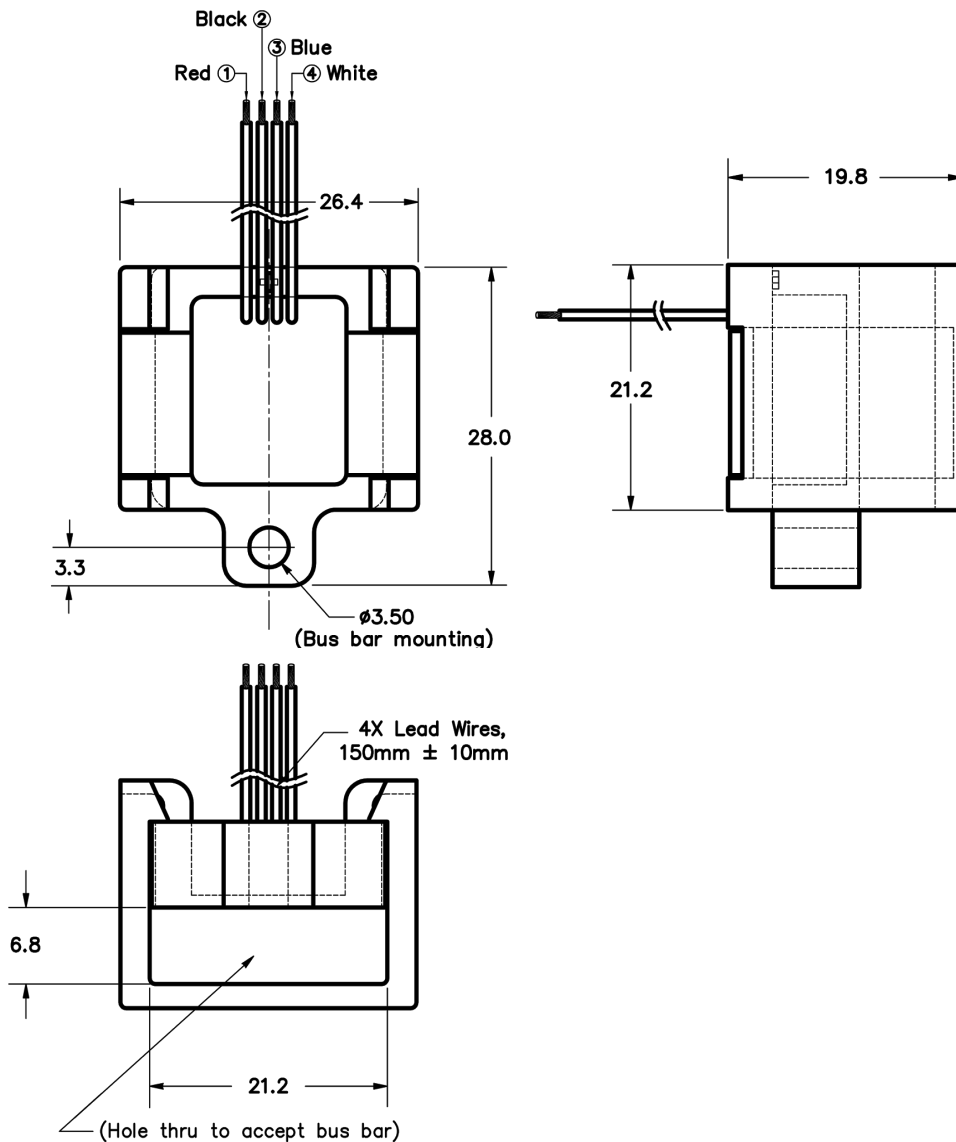
General Data

Ambient Operating Temperature	-40 to +85 °C
Ambient Storage Temperature	-40 to +90 °C
RMS Voltage for AC Insulation	4.3 kV
Creepage Distance	> 140 mm
Clearance Distance	> 140 mm
Safety Standard	EN50178
EMC Standard	EN61000
CTI	600 V
UL File	Pending

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)



Mouser Electronics

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ICE Components:

[ISB-175-A-606](#) [ISB-425-A-606](#) [ISB-300-A-606](#) [ISB-100-A-606](#)