Model IHA-150 **Open Loop Hall Effect**

Description

The IHA-150 Hall effect current sensor accurately measures DC and AC currents and provides electrical isolation between the output of the sensor and the current carrying conductor.

Features

- High accuracy
- Wide frequency range
- Excellent linearity
- Safety isolation
- Rack and bulkhead
- Light duty plastic housing

Applications

- Motor controllers and drives
- Battery supplied equipment
- Switch mode and uninterruptable power supplies
- Welding equipment

	Units	IHA-150
Measuring Circuit		
Full Scale (FS) DC or AC peak	± A	150
Full Scale output	± V	5
AC bandwidth (±1% of reading) (1)	kHz	50
Response time (2)	µs	>1
Slew rate	A/µs	>150
Excitation Circuit		
Supply voltage	±Vdc	12 to 17
Maximum supply current, positive supply (at 15V)	mA	10
Maximum supply current, negative supply (at 15V)	mA	5
Output		
Sensitivity	mV/A	33.3
Linearity	± % FS	<1
Calibration point (3)	± % RDG	0.5
Typical zero current offset	± mV	10
Maximum zero current offset	± mV	20
Maximum hysteresis of offset (4)	± mV	35
Minimum load resistance	K ohms	>10
Influences On Accuracy		
Typical offset drift with temperature	± mV/°C	1
Maximum offset drift with temperature	± mV/°C	2
Excitation change of ±1% - Max. sensitivity change	± %	0.005
Typical sensitivity drift with temperature	± %/°C	0.010
Maximum sensitivity drift with temperature	± %/°C	0.015
Withstand Capabilities		
Dielectric test (5)	kV	6
Output short or open		No Damage
General Information		
Operating temperature range	°C	0 to +75
Storage temperature range	°C	-25 to +85
Package		flame retardant plastic case
Aperture opening	Inches (mm)	0.84 (21.33)
Weight	Grams	94
Mounting		Mounting tabs accept No. 6 screws. Can be mounted on PCB or panel via use of appropriate connector.
Output reference		To obtain a positive output on pin marked "Vo", positive conventional current must flow as per the direction of arrow marked on sensor.

Mechanical **Dimensions**

All dimensions are in inches (millimeters)

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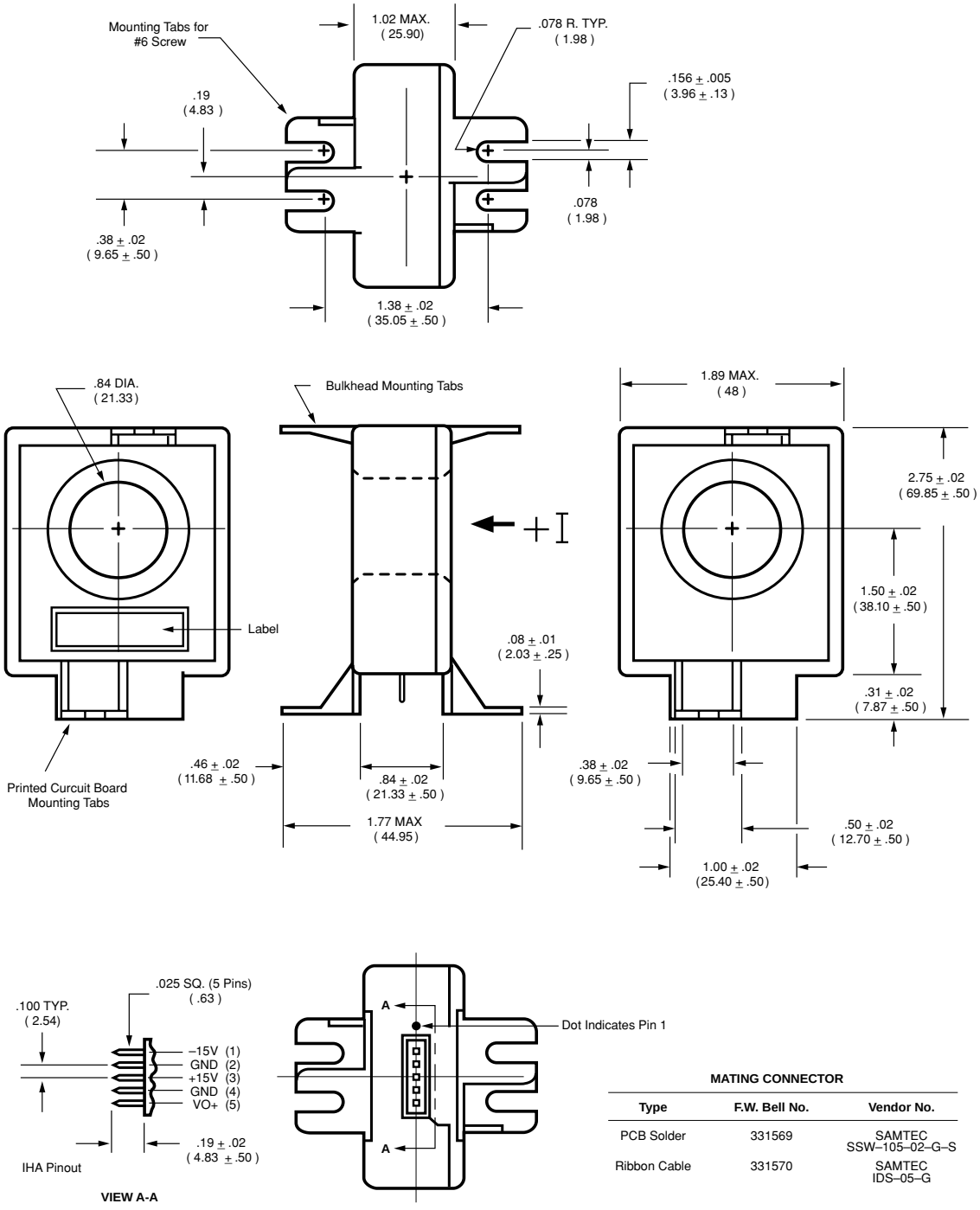

MATING CONNECTOR

Type	F.W. Bell No.	Vendor No.
PCB Solder	331569	SAMTEC SSW–105–02–G–S
Ribbon Cable	331570	SAMTEC IDS–05–G

Notes:

1. Consult F.W. Bell if the product of the aperture current and frequency exceeds 1000 ampere-kilohertz.
2. Response time is effected by the output leads and the conductor in the aperture, the proximity of the return conductor and ferrous metals. It is best to test the sensor in the actual environment to obtain representative performance.
3. The sensors are calibrated at 80% of Full Scale.
4. Hysteresis specifications given for Full Scale aperture current remnant.
5. The dielectric test consists of 6 kVac at 60 Hz for one minute between a bare 0.750 inch diameter conductor (located concentrically through the aperture) and the output of the sensor.

F.W. BELL®