



### FEATURES

- Differential Input, Differential Output
- Ultra low noise output
- Up to 50 kHz bandwidth
- $\pm 5$  or  $\pm 10$  VDC Outputs
- Bridge Excitation: 5 or 10 VDC (DIP Switch)
- Ranges: 0.5, 1.0, 1.5, 2.0, 2.5, 3.0, 4.0, 10.0 mV/V (DIP Switch)
- 256 Selectable Shunt Combinations: 30k $\Omega$ , 43.7k $\Omega$ , 60.4k $\Omega$ , 87.6k $\Omega$ , 100k $\Omega$ , 150k $\Omega$ , 300k $\Omega$ , 432k $\Omega$  (DIP Switch)
- 5 Selectable Bandwidths (DIP Switch)
- Externally Accessible Shunt Cal Activation Button
- Internal Span and Offset Potentiometers
- Sensor Polarity Reversal DIP Switch

**IMPORTANT NOTE: DO NOT CONNECT DEVICE TO POWER SUPPLY WHEN POWER SUPPLY IS ALREADY ON.**

**OUTPUT IS DIFFERENTIAL. DO NOT CONNECT +/- VOUT TO A GROUND. DOING SO CAN CAUSE DAMAGE.**

### SPECIFICATIONS

PARAMETER	MIN.	TYP.	MAX.	UNIT
Power Supply	12.5		26	VDC
Current Consumption		100		mA
Load Impedance	250k			Ohm
Sensor Impedance	350		5000	Ohm
Bandwidth (Setting 1)		100		Hz
Bandwidth (Setting 2)		1000		Hz
Bandwidth (Setting 3)		10000 <sup>1</sup>		Hz
Bandwidth (Setting 4)		25000 <sup>2</sup>		Hz
Bandwidth (Setting 5)		50000 <sup>3</sup>		Hz
Common Mode Rejection Ratio	120			dB
Noise		2		mVp-p
Output Span range	-10		10	% of FSR
Output Zero range	-10		10	% of FSR
Gain Drift with Temperature	-25	x	25	PPM of FSR
Nonlinearity	-0.01	x	0.01	% of FSR
Zero Drift with Temperature	-25	x	25	PPM of FSR
Operating Temperature	32 [0]		158 [70]	°F [°C]
Storage Temperature	-40 [-40]		185 [85]	°F [°C]
Relative Humidity		95% at 100 [39]		°F [°C]

### PHYSICAL FEATURES

Material	Stainless steel cover with aluminum body fastened by magnets
Protection	IP50
Weight (approx.)	0.24 lb (109 g)
Power	LED Indicator

### CONFORMITY

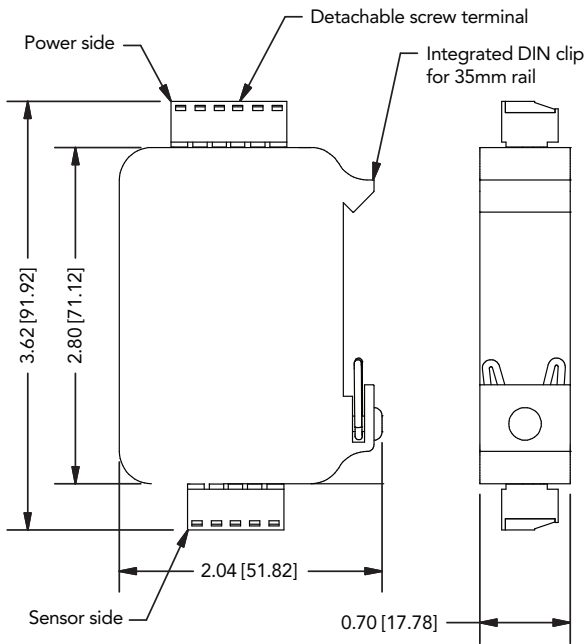
RoHS	2011/65/EU
CE	EN61326-1:2013; EN55011:2009 (Amended by A1:2010) Class 1 Certification for Aerospace and Medical Grade Devices

<sup>1</sup> Only for Sensitivity of 1.0 mV/V or Greater

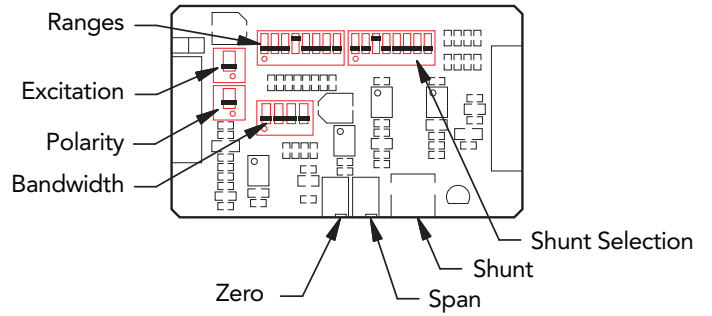
<sup>2</sup> Only for Sensitivity of 1.5 mV/V or Greater

<sup>3</sup> Only for Sensitivity of 2.0 mV/V or Greater

## DIMENSIONS inches [mm]

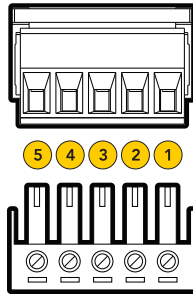


## DIP SWITCHES CONFIGURATION



## SENSOR SIDE

PIN #	WIRING CODE
1	SHIELD
2	+ EXCITATION <sup>4</sup>
3	+ SIGNAL
4	- SIGNAL
5	- EXCITATION <sup>4</sup>

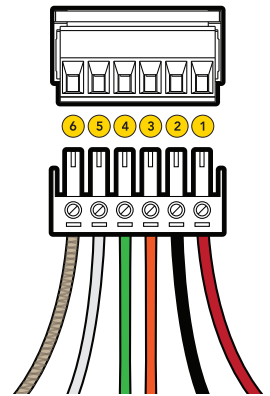


<sup>4</sup> For 6 wire sensors, connect +SENSE to +EXCITATION and -SENSE to -EXCITATION.

**Note:** Sensor cable shield connections should be grounded on one end, either the sensor side or the IAA sensor input side, to avoid potential ground loops.

## SCREW TERMINAL CONNECTIONS (POWER SIDE)

PIN #	WIRING CODE		COLOR
1	+Vin	Power Supply	Red
2	Gnd	Power Ground	Black
3	Shunt	Remote Connection	Orange
4	+Vout	Positive Output Connection	Green
5	-Vout	Negative Output Connection	White
6	Shield	Braided Cable Shielding	N/A



**Note:** Gray screw terminals used for IAA300. Troubleshooting tips can be found within the IAA Series Quick Start Guide.

Visit [www.futek.com/iaa/support.aspx](http://www.futek.com/iaa/support.aspx) to find the IAA Series Quick Start Guide, full product manual, wiring layout, and gain settings.

Drawing Number: FI1397-B

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RoHS



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