



**FEATURES**

- USB 2.0 Communication Link
- USB Bus-Powered (5V)
- Input/Output Short Circuit Protection
- Streaming ASCII Output
- Offered with DLL/Mac Dynamic Library
- CE Approved Class A (required for Medical and Aerospace applications)
- Industrial metallic enclosure
- Integrated DIN rail mount
- Supports, VDC, mA, mV and TTL type input
- Lends itself to a multitude of industry applications through its support of amplified input

**SPECIFICATIONS**

**GENERAL**

Sampling Rate	Up to 4800 SPS
Bandwidth (Hz)	Sampling Rate (SPS) / 4
Internal Resolution	24 bits
Resolution (Noise Free)	See Chart on Page 3
Non Linearity (max)	± 0.005% of FSR
Output	Digital Packetized Data
Integrated Digital Filter	50 Hz/60 Hz Rejection (100 dB)
On Chip Memory	1 Kilobyte
Stored Calibration	Up to 16 Points
Weight	0.43 lb (195 g)
On Chip Sensor Profiles	Up to 4
ASCII Output Update Rate	10 SPS

**ENCODER INPUT**

Encoder Input	Quadrature Leading and Lagging Pulse (TTL)
Speed Measurement	Up to 150k Pulses Per Second <sup>1</sup>
Angle Measurement (α)	Up to 10k Pulses Per Rotation (PPR) <sup>1</sup>
Angle/Speed Measurement (Update Rate)	100 ms

**STRAIN GAUGE mV/V INPUT**

Bridge Excitation	4.6 VDC
Standard Input Range	± 3.4 mV/V (factory default)
Optional Input Range	Up to ± 400 mV/V
Min. Bridge Resistance	50 Ohm
Max. Bridge Resistance	5000 Ohm

**VOLTAGE INPUT**

Supply Voltage	Selectable 5,9,10,12,15,18,20,24 VDC/1W
Standard Input Range	± 10 VDC (Factory Default)

**CURRENT INPUT**

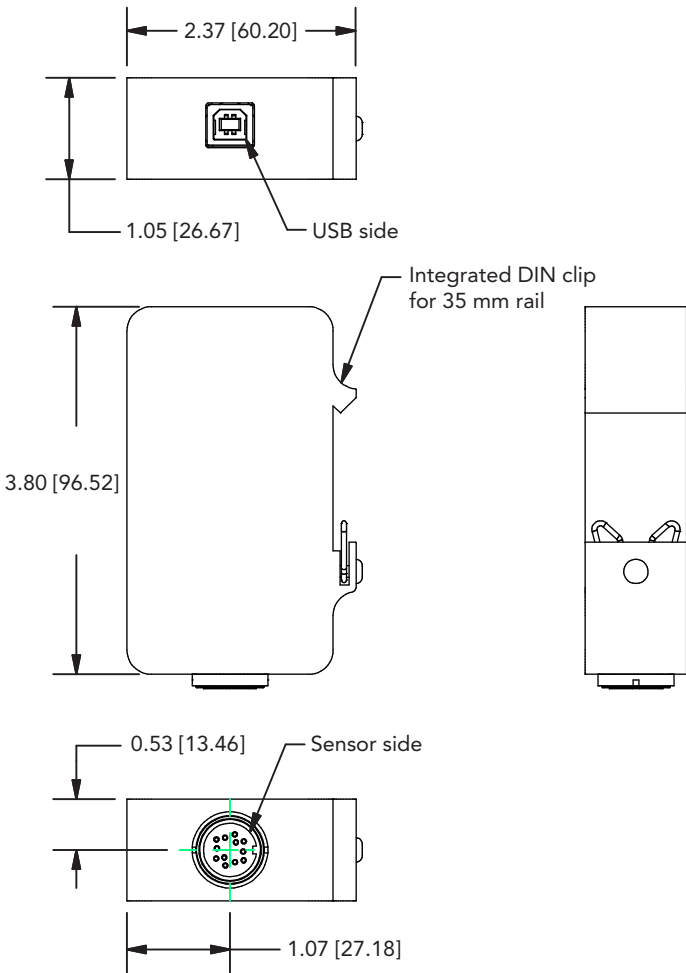
Supply Voltage	Selectable 5,9,10,12,15,18,20,24 VDC/1W
Standard Input Range	0-20 mA (Factory Default)

**CONNECTORS**

Sensor Connector	Binder 09 0132 90 12
Mating Connector	Binder 99 5129 00 12
USB 2.0 Connector	Type B

<sup>1</sup> Speed = Δ α × 60 / PPR

**DIMENSIONS** inches [mm]



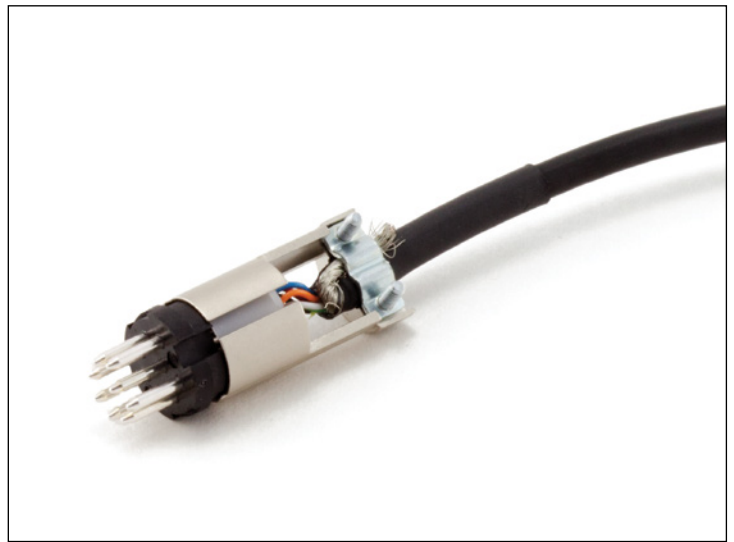
**SPECIFICATIONS** (continued)

**ENVIRONMENT**

Operating Temperature	-13°F to 185°F [-25°C to 85°C]
Storage Temperature	-40°F to 257°F [-40°C to 125°C]

**CONFORMITY**

RoHS	2011/65/EU
CE	EN61326-1:2013; EN55011:2009 (Amended by A1:2010)



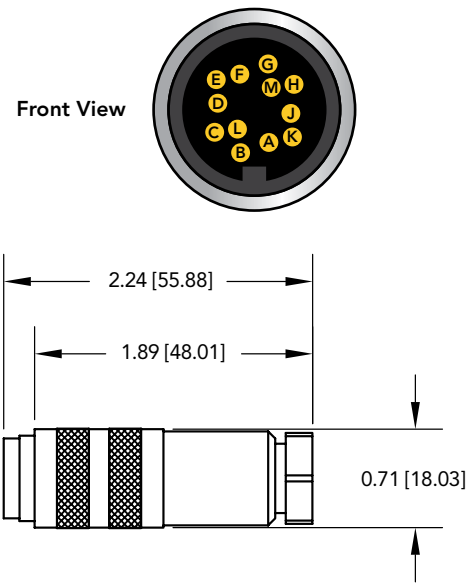
**Note:** Shield should be connected to cable clamp of binder cable assembly when connecting on instrument side. Sensor cable shield connections should be grounded on one end, either the sensor side or the instrument side, to avoid potential ground loops.

SAMPLING RATE		
SAMPLES PER SECOND (SPS)	mV/V RESOLUTION	mA AND VDC INPUT RESOLUTION
5	18.2	20.5
50	16.8	19.5
100	16.5	19.2
300	16.0	18.2
1200	14.8	17.0
2400	13.9	16.0
4800	13.9	16.0

12-PIN BINDER MATING CONNECTOR (99 5129 00 12)	
PIN	SIGNAL
A	+ EXCITATION / + SENSE
B	+ SIGNAL
C	- EXCITATION / - SENSE
D	- SIGNAL
F	SELECTABLE SUPPLY OUTPUT
G	GROUND
H	4.75V OUTPUT
J	NEGATIVE (RETURN) VOLTAGE INPUT / CURRENT RETURN
K	POSITIVE VOLTAGE INPUT / CURRENT INPUT
L	LEADING PULSE
M	LAGGING PULSE

### ACCESSORIES

- FUTEK's SENSIT™ Software** (FSH03189)  
 14 Day Trial - Available to download on FUTEK website. A license is required, per seat, after 14 days to benefit the features such as data logging, graphing, etc. Trial version turns into basic read-out ONLY after 14 days and a product key is required to enable the features.
- USB 2.0 Hi-Speed A/B Cable** (GOD04123, included)
- 12-PIN Binder Male Plug**, 99 5129 00 12 (GOD02975 , included)



Drawing Number: FI1389-D

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RoHS



U.S. Manufacturer