



**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 7

**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**

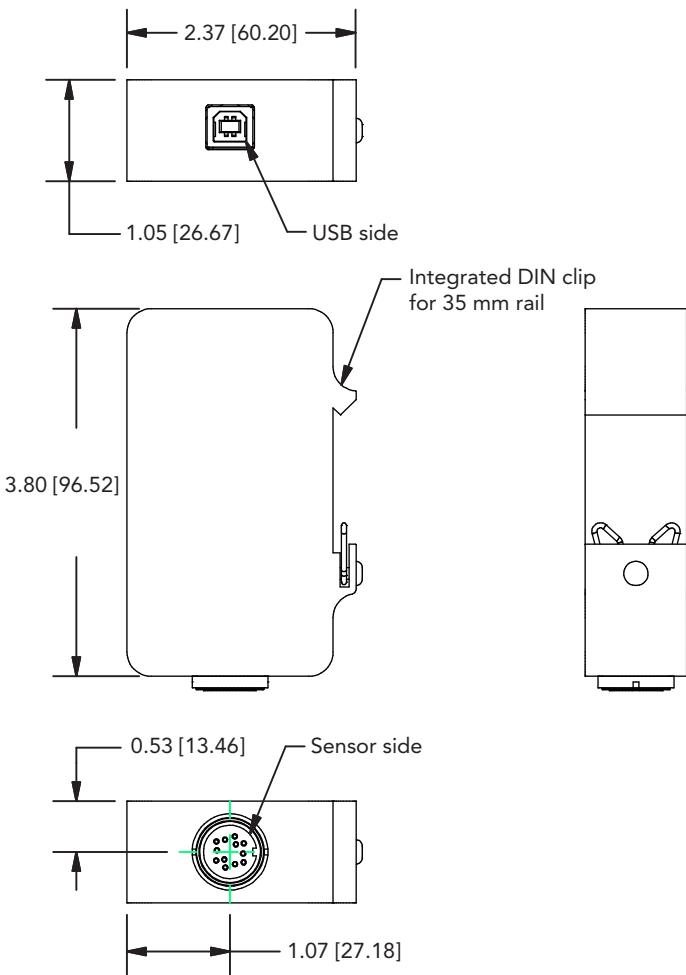
Supply Voltage	Selectable 5,9,10,12,15,18,20,24 VDC/1W
Standard Input Range	0-20 mA (Factory Default)

**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

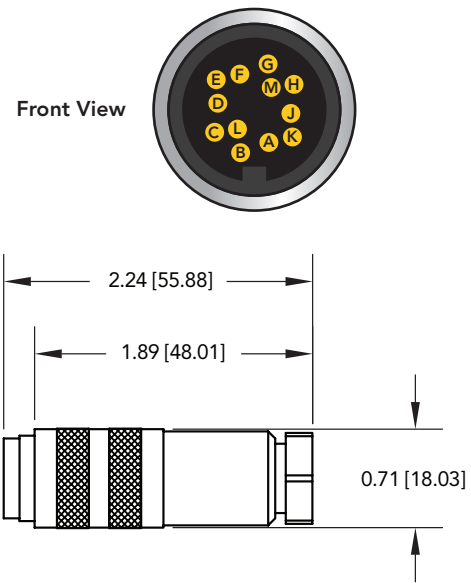
RoHS	2011/65/EU
CE	EN61326-1:2013; EN55011:2009 (Amended by A1:2010)

SAMPLING RATE		
SAMPLES PER SECOND (SPS)	mV/V RESOLUTION	AMPLIFIED 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 / SHIELD
D	- SIGNAL
F	SELECTABLE SUPPLY OUTPUT
G	GROUND / SHIELD
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

FUTEK reserves the right to modify its design and specifications without notice. Please visit <http://www.futek.com/salesterms> for complete terms and conditions.

10 Thomas, Irvine, CA 92618 USA

Tel: (949) 465-0900  
 Fax: (949) 465-0905

[www.futek.com](http://www.futek.com)



RoHS



U.S. Manufacturer