



## 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

**IMPORTANT NOTE: ONLY CONNECT DEVICE TO USB 2.0 PORT**

## 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
IP Rating	IP50

### 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

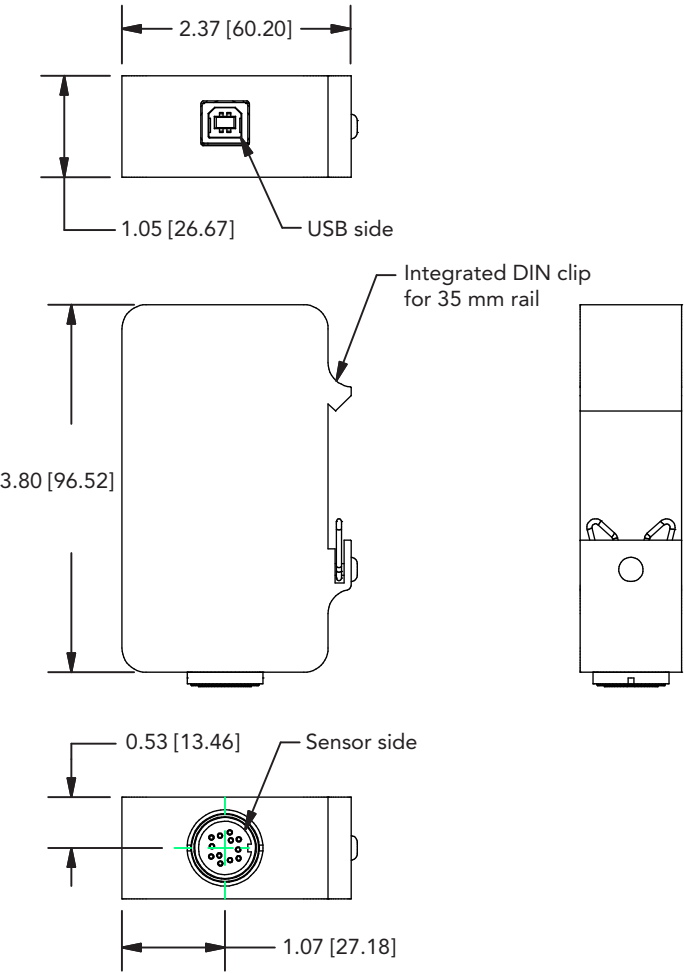
Supply Voltage	Selectable 5,9,10,12,15,18,20,24 VDC/1W
Standard Input Range	0-20 mA (Factory Default)

### CONNECTORS

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

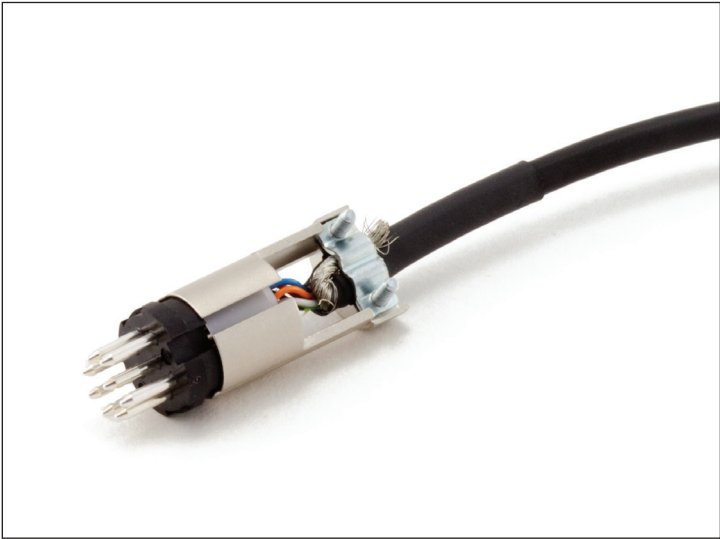
<sup>1</sup> Speed =  $\Delta \alpha \times 60 / \text{PPR}$

DIMENSIONS inches [mm]



SPECIFICATIONS (continued)

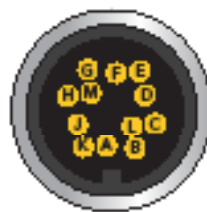
ENVIRONMENT	
Operating Temperature	-13°F to 185°F [-25°C to 85°C]
Storage Temperature	-40°F to 257°F [-40°C to 125°C]
CONFORMITY	
RoHS	2011/65/EU
CE	EN61326-1:2013; EN55011:2009 (Amended by A1:2010)



**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

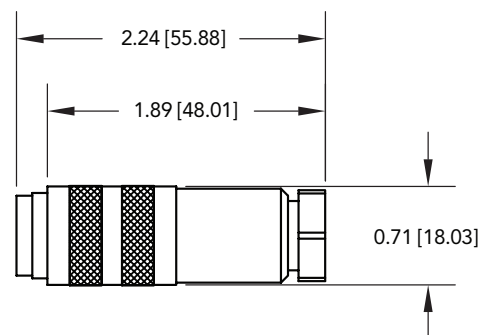
SAMPLES PER SECOND (SPS)	mV/V RESOLUTION	mA AND VDC INPUT RESOLUTION
5	18	20.5
50	16.5	19.5
100	16.3	19.2
300	15.8	18.2
1200	14.6	17.0
2400	13.6	16.0
4800	13.6	16.0

12-PIN BINDER MATING CONNECTOR  
(99 5129 00 12)

PIN	SYMBOL	DESCRIPTION
A	+E	+ Excitation / + Sense
B	+S	+ Signal
C	-E	- Excitation / - Sense / Shield
D	-S	- Signal
F	+Vcc	Supply Output
G	Gnd	Ground / Shield
H	4.75 Out	4.75 VDC Output
J	-V	- Amplified Input
K	+V	+ Amplified Input
L	PLEAD	Leading Pulse
M	PLAG	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)



## SCIGATE AUTOMATION (S) PTE LTD

No.1 Bukit Batok Street 22 #01-01 Singapore 659592

Tel: (65) 6561 0488

Fax: (65) 6562 0588

Email: sales@scigate.com.sg

Web: www.scigate.com.sg

Business Hours: Monday - Friday 8.30am - 6.15pm

Drawing Number: FI1389-H

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10 Thomas, Irvine, CA 92618 USA

Tel: (949) 465-0900

Fax: (949) 465-0905

www.futek.com



RoHS



U.S. Manufacturer