

FUTEK MODEL USB530 ITEM # FSH03774

EXTERNAL USB KIT (MV/V, AMPLIFIED, AND ENCODER INPUT)



Drawing Number: FI1358

SPS= Samples Per Second

INCH [mm]

FEATURES:

- USB 2.0 Communication Link
- USB Bus- Powered (5V)
- Input/Output Short Circuit Protection
- Streaming ASCII Output

CONNECTORS:

- 1) USB Connector: Binder 09 0112 99 04
Mating Connector: Binder 99 5109 00 04
- 2) Sensor Connector: Binder 09 0132 90 12
Mating Connector: Binder 99 5129 00 12



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]

SPECIFICATIONS:

General

- Sampling Rate: up to 15000 SPS
- Internal Resolution: 24 bits
- Resolution (Noise free): See chart
- Nonlinearity: 0.001% of FSR
- Accuracy: 0.001% of FSR
- Output: Digital Packetized Data
- Integrated Digital Filter: 50 Hz/ 60 Hz rejection (100 dB)
- On Chip Memory: 1 Kilobyte
- Up to 16 Point Stored Calibration
- Weight: 0.9 lb (408 g)

Encoder Input

- Encoder Input: Quadrature Leading and Lagging Pulse
- Speed Measurement: up to 150k pulses per second¹
- Angle Measurement (α): up to 10k pulses per rotation (PPR)¹

Strain Gauge mV/V Input

- Bridge Excitation: 4.6 VDC
- Standard Input Range: ± 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 Output: 5-24 VDC (selectable)/ 1W
- Standard Input Range: ± 10 VDC (factory default)

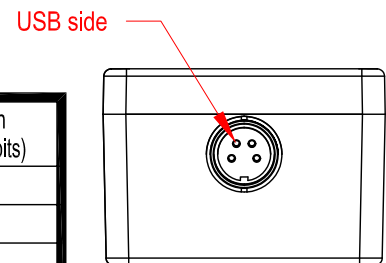
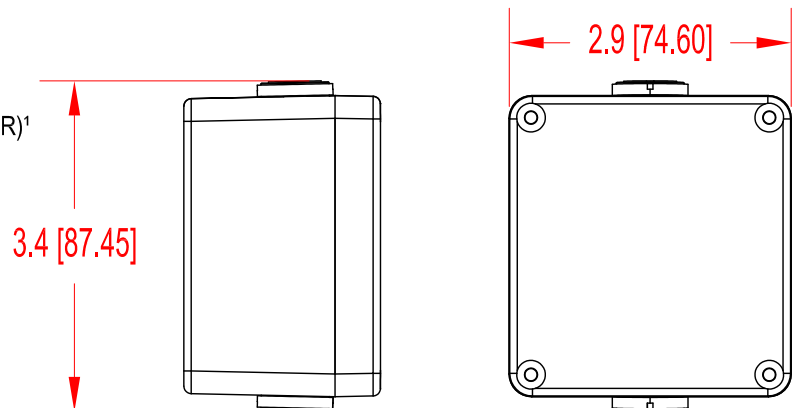
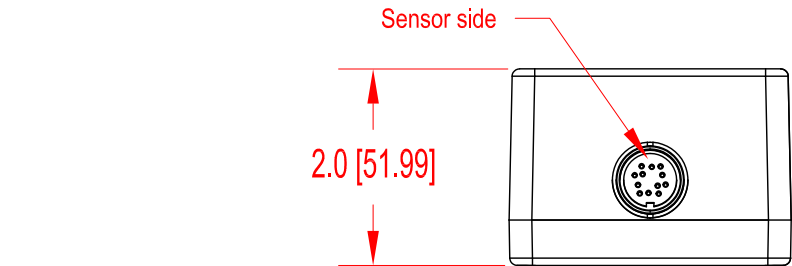
Current Input

- Supply Output: 5-24 VDC (selectable)/ 1W
- Standard Input Range: 0-20 mA (factory default)

ACCESSORIES:

- 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.
- FSH03570: USB Cable (Included)
- GOD02975: 12 Pin Binder Male Plug, 99 5129 00 12 (Included)

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



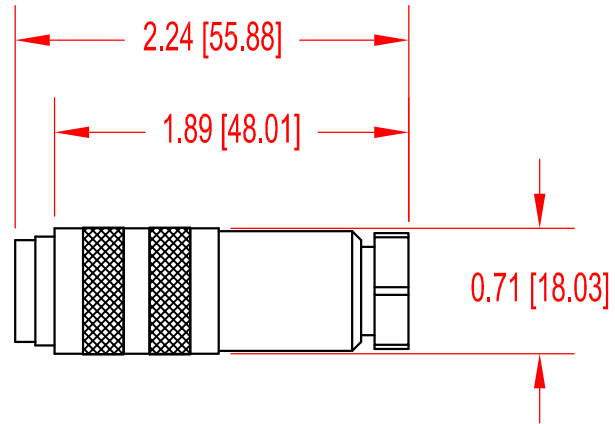
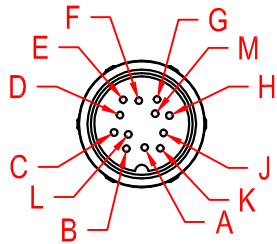
Sampling Rate (SPS)	Resolution (Noise free bits)
10	16.5
100	15.5
1000	14
2000	13
7500	12.5
15000	11

ITEM # GOD02975

Drawing Number: F11360

INCH [mm]

12 PIN BINDER CONNECTOR
FOR CONNECTION WITH FUTEK MODEL IHH500 & USB520



12 PIN BINDER MATING CONNECTOR
99 5129 00 12

Pin	Signal
A	+Excitation
B	+Signal
C	-Excitation
D	-Signal
F	Supply Output
G	Ground
H	5V Output
J	-V
K	+V
L	Leading Pulse
M	Lagging Pulse