

FUTEK MODEL USB230 ITEM # FSH03457

EXTERNAL USB KIT



Drawing Number: FI1320-D

INCH [mm]

FEATURES:

- USB 2.0 Communication Link
- USB Bus- Powered (5V)
- Integrated Shunt Cal
- Input/Output Short Circuit Protection
- Blinking Blue LED Indicator (10 Hz): Module Auto-Calibration
- Blinking Blue LED Indicator (1 Hz): Module Normal Operation
- Green LED Indicator: USB Power
- Red LED Indicator: USB Data Link

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]

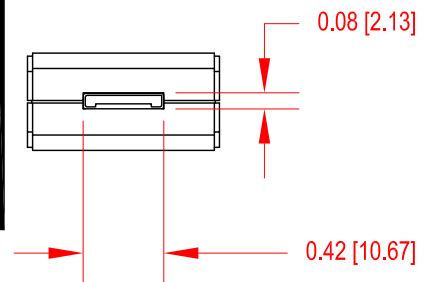
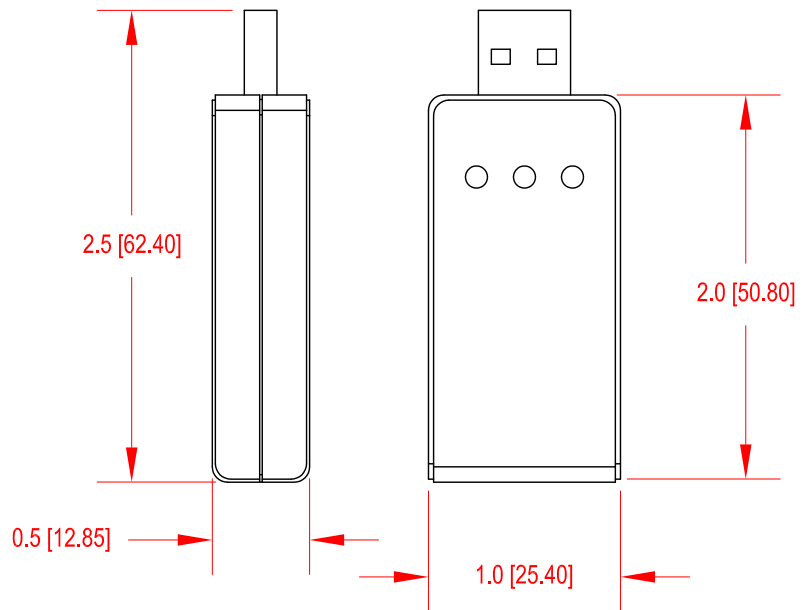
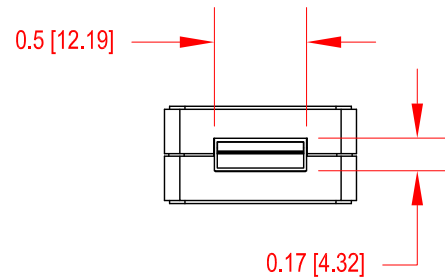
SPECIFICATIONS:

- Bridge Excitation: 4.6 VDC
- Sampling Rate: up to 15000 SPS
- Internal Resolution: 24 bits
- Standard Input Range: +/- 4 mV/V
- Optional Input Range: +/- 500 mV/V
- For use with semiconductor sensors
- Resolution (Noise Free): See chart below
- Nonlinearity: 0.001% of FSR
- Input: Non-amplified (mV/V) Analog Voltage
- Output: Digital Packetized Data
- Min. Bridge Resistance: 50 Ohm
- Max. Bridge Resistance: 5000 Ohm
- Integrated Digital Filter: 50 Hz/ 60 Hz rejection (100 dB)
- On Chip Memory: 1 Kilobyte
- Up to 16 Point Stored Calibration
- Weight: 10g

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.

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

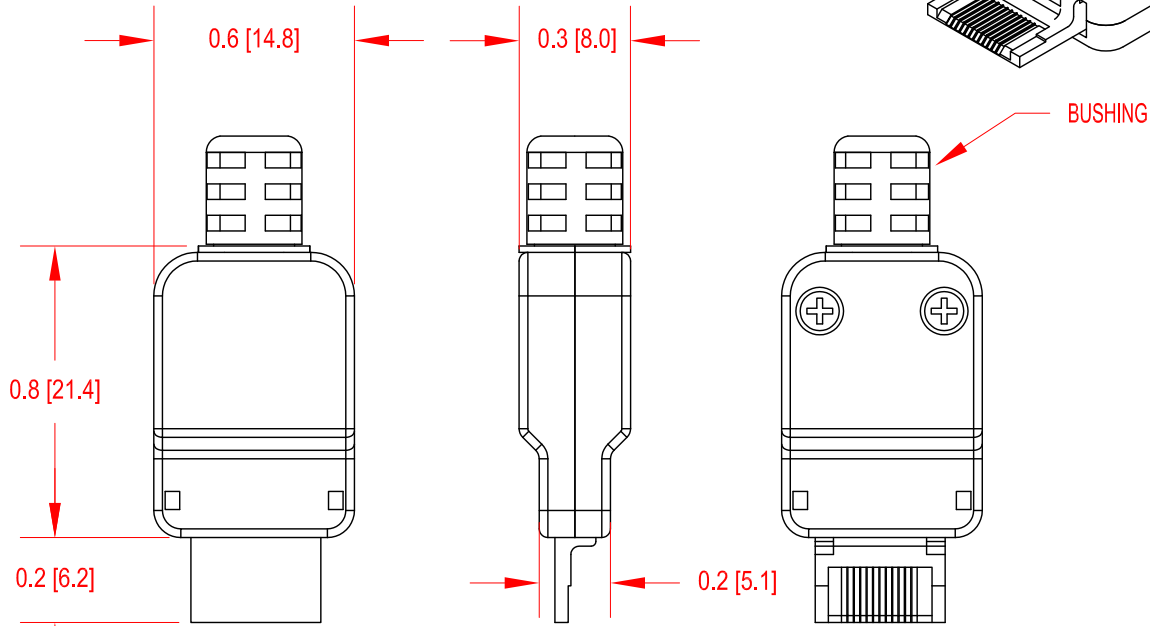
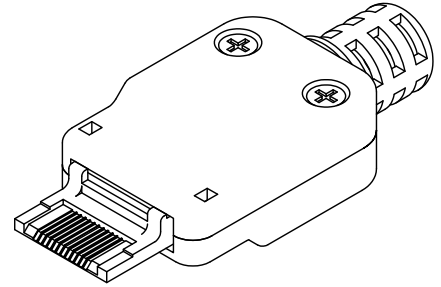


FUTEK MODEL ZCO940
ITEM # FSH03320

CONNECTOR PLUG KIT FOR USB MODULES

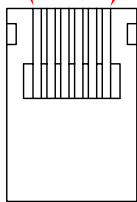
Drawing Number: FI1312-B

INCH [mm]



BUSHING SIZES
0.16 [4.0]
0.18 [4.5]
0.20 [5.0]

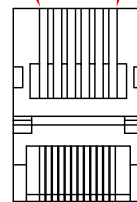
Pin 2 Pin 12



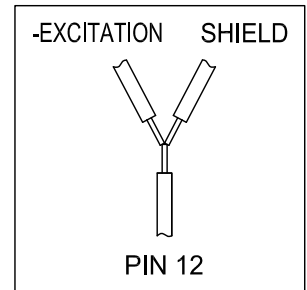
FRONT



Pin 11 Pin 1



Pin 12 BACK Pin 1



HIROSE MALE (SENSOR SIDE)					
PIN #	USB210/220/230 (FSH03631) USB320 4 WIRE VOLTAGE	(FSH03631) USB320 3 WIRE VOLTAGE	(FSH03634) USB320 3 WIRE CURRENT	(FSH03634) USB320 2 WIRE CURRENT	USB410
1	+SIGNAL	+SIGNAL	+SIGNAL	+SIGNAL	+SIGNAL
2	-SIGNAL	N/A	N/A	N/A	-SIGNAL
5	N/A	N/A	N/A	N/A	P1- LEADING PULSE
6	N/A	N/A	N/A	N/A	P2- LAGGING PULSE
11	+EXCITATION	+EXCITATION	+EXCITATION	+EXCITATION	VCC/+EXCITATION
12	-EXCITATION/ SHIELD*	-EXCITATION/ SHIELD*	-EXCITATION/ SHIELD*	N/A	GND/-EXCITATION/SHIELD*

*USE Y CONNECTION ON PIN 12 TO MAKE CONNECTING THE -EXCITATION AND SHIELD EASIER