



SPECIFICATIONS

GENERAL

Item Number	FSH04720
Bandwidth (Hz)	See Chart
Internal Resolution	32 bits
Output	Digital Packetized Data
On Chip Memory	64 Kb
Internal Shunt Resistance Value	43 kΩ, 60.4 kΩ & 150 kΩ
Weight	0.7 oz (20 g)
Material	Aluminum Body/Stainless Steel Cover
IP Rating	IP50

STRAIN GAUGE mV/V INPUT

Sampling Rate	Up to 4,800 SPS
Resolution (Noise Free)	See Chart
Non-Linearity (max)	± 0.002% of FSR
Stored Calibration	Up to 23 Points
Bridge Excitation	4.75 VDC
Input Range	Up to ± 16 mV/V
Min/Max Bridge Resistance	87.5/5000 Ω

POWER

Supply	USB Bus (5 VDC ± 10%)
Power Consumption	32 mA at 5 VDC (without a sensor connected)
Inrush Current	<500 mA

CONNECTORS

Mating Connector	Hirose ST40TX-10S-CV(30)
USB 3.0 Connector	USB3.0 Type A Plug

ENVIRONMENT

Operating Temperature	-4°F to 175°F [-20°C to 80°C]
Storage Temperature	-40°F to 257°F [-40°C to 125°C]
Temperature Coefficient Factor	5 ppm/°C

CONFORMITY

RoHS	2011/65/EU
CE	EN 61326-1:2013, FCC 15.107:2021, FCC 15.109:2021, ICES-003:2020, VCCI-CISPR 32:2016

FEATURES

- USB 3.0 Compatibility and Communication Link
- Short/Open Circuit and Excessive Temperature Detection
- CE Criteria A compliance for Aerospace and Medical Grade Devices
- Supports mV/V inputs from Strain Gauges, Load Cells, Torque, Displacement and Pressure Sensors
- No external power supply is needed, it can be powered directly from a Computer's USB ports
- Strain gauge mV/V streaming ASCII up to 50 SPS

MATERIAL & MANUFACTURING

- High-Reliability PCB/Assembly (IPC CLASS III)
- High-Temperature Rated Material/BOM Items
- Strictly Controlled Inspection, Test, and Calibration Process
- Fully Controlled Handling/Packaging Process
- Extensive Test and Validation for 100% of Production Units
- Individual Calibration Report/Certification for Instruments and Systems

APPLICATIONS

- Medical
- Aerospace
- Precision Industrial Automation
- Lab & Field Instrumentation
- Precision Manufacturing

Sensor Solution Source

Load · Torque · Pressure · Multi-Axis · Calibration · Instruments · Software

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RoHS



U.S. Manufacturer

ASCII PARAMETERS	
Data (Bit)	8
Baud Rate (bps)	2,000,000
Parity	None
Stop (Bit)	1
Flow Control	None
Format	Data, Unit, LF

LED INDICATORS	
Solid Green	Normal Operation Mode
Blinking Red	Fault Condition Detected (Open, Short or Temperature Exceeded)
Solid Pink	System is logging data
Solid Blue	Bootloader mode is enabled

Support Operating Systems: Windows 7, 8.1, 10, and 11

NOISE FREE RESOLUTION FOR ± 5 mV/V		BANDWIDTH BASED ON SPS
Samples Per Second (SPS)	NFR (bits) ± 5 mV/V	Bandwidth (Hz)
2.5	20	0.58
5	19.2	1.15
10	18.6	2.28
16.6	18.3	3.80
20	18.1	4.63
50	17.5	11.40
60	17.4	13.70
100	17.1	22.80
400	16.2	91
1200	15.3	273
2400	14.6	544
4800	14	1077

ACCESSORIES

- Mating Connector included FSH04651 (ZCO0975)
- 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.

NOTES

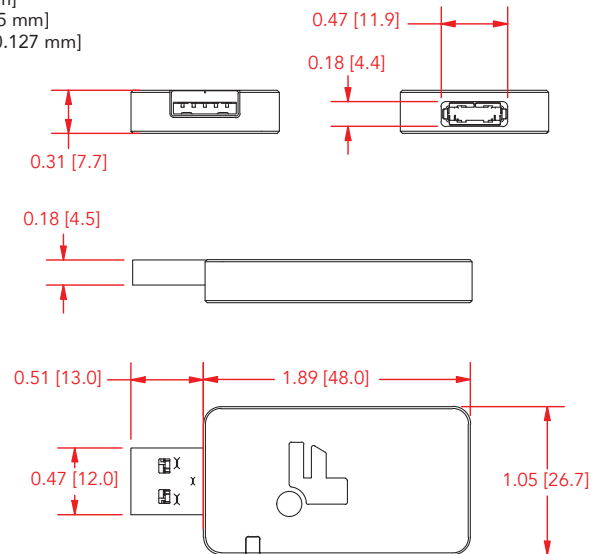
- Programming Platforms: DLL file available for programing support, such as LabVIEW, Visual Studio, and Xcode
- System requires a 5 second startup time.
- ASCII streaming feature is auto-enabled upon startup. This feature only works for sampling rates up to 50 SPS and is auto-disabled for higher sampling rates.



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DIMENSIONS inches [mm]

TOLERANCE:
 .X ± 0.1" [2.5 mm]
 .XX ± 0.01" [0.25 mm]
 .XXX ± 0.005" [0.127 mm]



Drawing Number: FI1555-A

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