

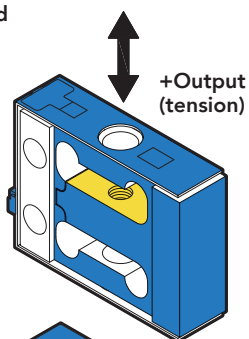


FEATURES

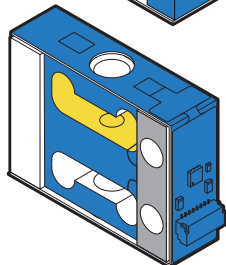
- Integrated [IEEE1451.4 TEDs](#) Autorecognition and [PT1000 temperature sensor](#)
- Intended for high volume applications
- Easily integrates into OEM applications
- Integrated Overload Protection to mitigate sensor damage
- Low power consumption
- Exceptional nonlinearity and nonrepeatability
- [Can integrate analog VDC, mA or custom embedded electronics such as digital SPI, I2C, RS-232, UART output, and more](#)

 Non-loading surface, do not contact

 Active end



 Fixed end



SPECIFICATIONS

LOAD CELL PERFORMANCE

Nonlinearity	±0.02% of RO (2.2–100 lb) ±0.06% (200 lb)
Hysteresis	±0.02% of RO (2.2–100 lb) ±0.06% (200 lb)
Nonrepeatability	±0.02% of RO
Creep	±0.025% of Load

LOAD CELL ELECTRICAL

Rated Output (RO)	2 mV/V nom
Excitation (VDC or VAC)	18 max
Bridge Resistance	1000 Ohm nom
Insulation Resistance	≥500 Mohm @ 50 VDC
Connection	8 position JST Connector

MECHANICAL

Weight (approximate)	1 oz [28 g] (2.2-100 lb) 3 oz [85g] (200 lb)
Safe Overload	See chart on next page
Material	Aluminum (2.2–100 lb) Stainless Steel (200 lb)
IP Rating	IP00

LOAD CELL TEMPERATURE

Operating Temperature	-13 to 185°F [-25C to 85°C]
Compensated Temperature	60 to 160°F [15 to 72°C]
Temperature Shift Zero	±0.005% of RO/°F [0.01% of RO/°C]
Temperature Shift Span	±0.005% of Load/°F [0.01% of Load/°C]

LOAD CALIBRATION

Load Calibration	10 VDC
Calibration (standard)	Certificate of Conformance
Calibration (available)	5-pt Tension and Compression
Shunt Calibration Value	150 kOhm

RTD OUTPUT

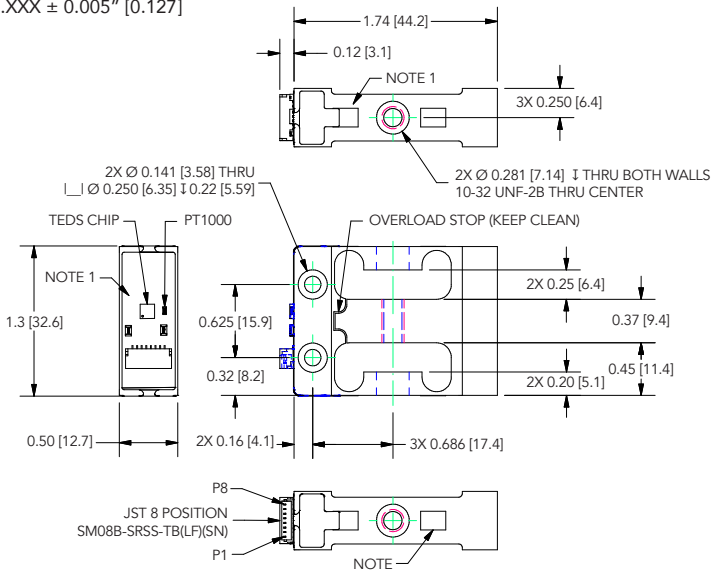
RTD Tolerance Class	F0.3 (Class B) = ± (0.3 + 0.005 x Temperature (°C))
Temperature Sensor Current Range	0.1 to 0.3 mA

CONFORMITY

RoHS	EU 2015/863
CE	EN55011; EN61326-1
RTD Sensor	Compliant to DIN EN 60751

DIMENSIONS inches [mm]

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



DO NOT CONTACT EXPOSED CIRCUITS/WIRES. MAINTAIN ~0.03" [0.8 mm] GAP AROUND SENSOR WITHIN FIXTURES TO AVOID CONTACT WITH EXPOSED COMPONENTS.

8 POSITION JST CONNECTOR

P1	+ EXCITATION
P2	- EXCITATION
P3	+ SIGNAL
P4	- SIGNAL
P5	TEDS DATA
P6	RTD LINE 1
P7	TEDS RETURN
P8	RTD LINE 2

COMPATIBLE CABLE ITEM NUMBER: FSH04653 NOT INCLUDED

CAPACITIES

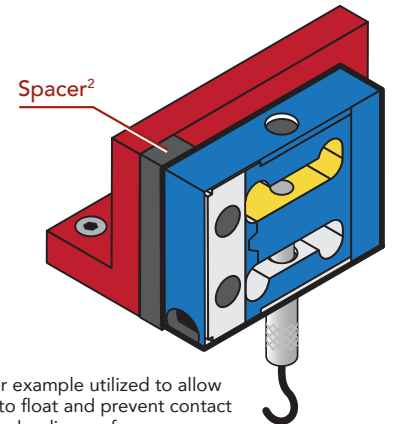
ITEM #	lb	N	Deflection (in.)	Natural Frequency (Hz)	Safe Overload (lb/N)
FSH04519	2.2	9.8	0.0084	260	250 / 1112
FSH04520	5	22.2	0.0065	440	250 / 1112
FSH04521	10	44.5	0.0059	650	250 / 1112
FSH04522	25	111	0.0052	1080	250 / 1112
FSH04523	50	222	0.0050	1550	250 / 1112
FSH04524	100	445	0.0050	2180	250 / 1112
FSH04525	200	890	0.0050	1700	400 / 1779 ¹

¹ If additional pins are used

MOUNTING

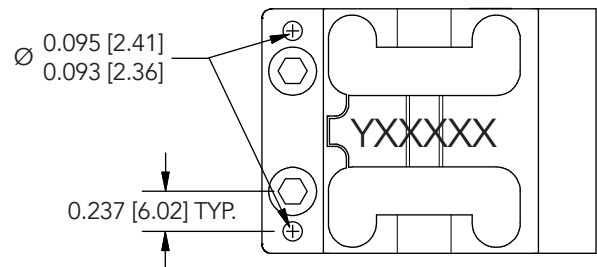
Deflecting surfaces must be free from contact or interference. Spacers may be used to help isolate sensor from surfaces.

- Non-contact area
- Active end



² Spacer example utilized to allow sensor to float and prevent contact with non-loading surfaces.

ADDITIONAL HOLE LOCATIONS (200 lb only)



Drawing Number: F11540-A

FUTEK reserves the right to modify its design and specifications without notice.

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RoHS



U.S. Manufacturer