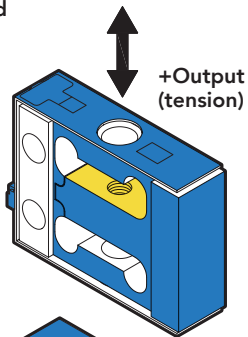


**FEATURES**

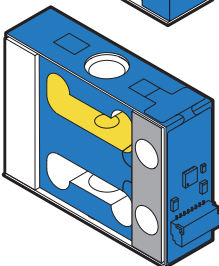
- Integrated [IEEE1451.4 TEDs](#) Autorecognition and [PT1000 temperature sensor](#)
- Intended for high volume applications
- Easily integrates into OEM applications
- Integrated Overload Protection to mitigate sensor damage
- Low power consumption
- Exceptional nonlinearity and nonrepeatability
- [Can integrate with VDC, mA, SPI, RS-422, USB, BLE, 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 [85 g] (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 [-25 to 85°C]
Compensated Temperature	60 to 160°F [15 to 71°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 Test Excitation	10 VDC
Load Calibration (standard)	Certificate of Conformance
Load Calibration (available)	5-pt Tension and Compression
Shunt Calibration Value	150 kOhm

**RTD OUTPUT**

PT1000 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

**Sensor Solution Source**

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

[www.futek.com](http://www.futek.com)

RoHS

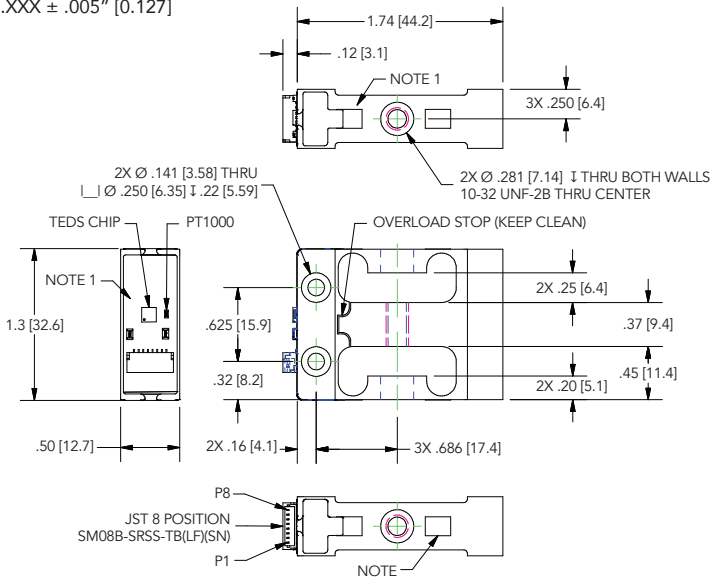


U.S. Manufacturer

## DIMENSIONS inches [mm]

**TOLERANCE:**

- .X ± .1" [2.5]
- .XX ± .01" [0.25]
- .XXX ± .005" [0.127]



**DO NOT CONTACT EXPOSED CIRCUITS/WIRES. MAINTAIN ~.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

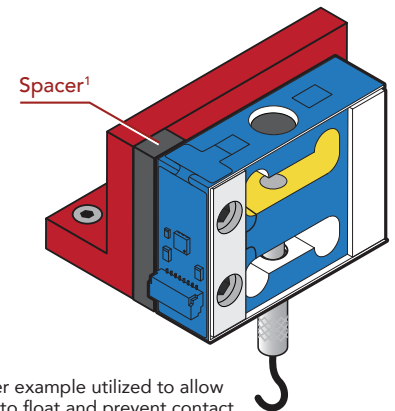
ITEM #	lb	N	Deflection (.in/mm)	Natural Frequency (Hz)	Safe Overload (lb/N)
FSH04519	2.2	9.8	0.0084 / 0.21	260	250 / 1112
FSH04520	5	22.2	0.0065 / 0.17	440	250 / 1112
FSH04521	10	44.5	0.0059 / 0.15	650	250 / 1112
FSH04522	25	111	0.0052 / 0.13	1080	250 / 1112
FSH04523	50	222	0.0050 / 0.13	1550	250 / 1112
FSH04524	100	445	0.0050 / 0.13	2180	250 / 1112
FSH04525	200	890	0.0050 / 0.13	1700	400 / 1779 <sup>1</sup>

<sup>1</sup> If additional pins are used

## MOUNTING

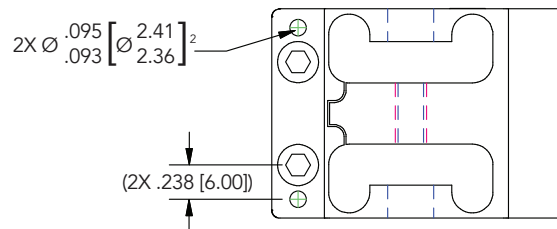
Deflecting surfaces must be free from contact or interference. Spacers may be used to help isolate sensor from surfaces.

- Non-contact area
- Active end



<sup>1</sup> Spacer example utilized to allow sensor to float and prevent contact with non-loading surfaces.

## ADDITIONAL HOLE LOCATIONS (200 lb only)



<sup>2</sup> MATCH DRILLING TO MATING PART RECOMMENDED

Drawing Number: F11540-C

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