



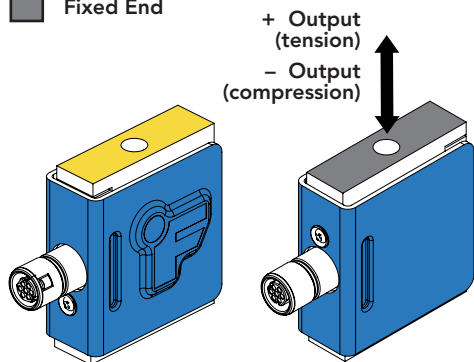
FEATURES

- Detachable 7 Pin FUTEK Receptacle
- Integrated IEEE1451.4 TEDs chip and PT-1000 temperature sensor
- Heat treated stainless-steel flexure design for optimal fatigue life and off center loading capabilities
- High performance tension and compression load cell
- Light weight, miniature size
- Integrated overload protection
- Notable nonrepeatability
- Shock and vibration resistant

 Non-loading surface, do not contact

 Active End

 Fixed End



SPECIFICATIONS

PERFORMANCE

Nonlinearity	±0.1% of RO
Hysteresis	±0.1% of RO
Nonrepeatability	±0.05% of RO

ELECTRICAL

Rated Output (RO)	1 mV/V nom (250 g) 2 mV/V nom (1 - 100 lb)
Excitation (VDC or VAC)	10 max
Bridge Resistance	350 Ohm nom
Insulation Resistance	≥500 MOhm @ 50 VDC
Connection	FUTEK 7-Pin Receptacle
Connector Code	CC18

MECHANICAL

Weight (approximate)	0.3 oz [9 g]
Safe Overload	1000% of RO (1-25 lb) 200% tension only (50-100 lb)
Material	17-4 PH stainless-steel body, anodized cover
IP Rating	IP40
Vibration Resistance	20-2000 Hz, 0.01g ² /Hz per MIL-STD-810E
Shock Resistance	500 g per IEC60068-2-27

TEMPERATURE

Operating Temperature	-60 to 200°F [-50 to 93°C]
Compensated Temperature	60 to 160°F [15 to 72°C]
Temperature Shift Zero	±0.005% of RO/°F [0.009% of RO/°C]
Temperature Shift Span	±0.005% of Load/°F [0.009% of Load/°C]

CALIBRATION

Calibration Test Excitation	5 VDC
Calibration (standard)	5-pt Tension
Calibration (available)	5-pt Tension and Compression
Shunt Calibration Value	100 kOhm (250 g) 60.4 kOhm (1-100 lb)

Sensor Solution Source

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

www.futek.com

DSPM Industria
 sensori & trasduttori

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Tel +39 02 48 009 757 Fax +39 02 48 002 070

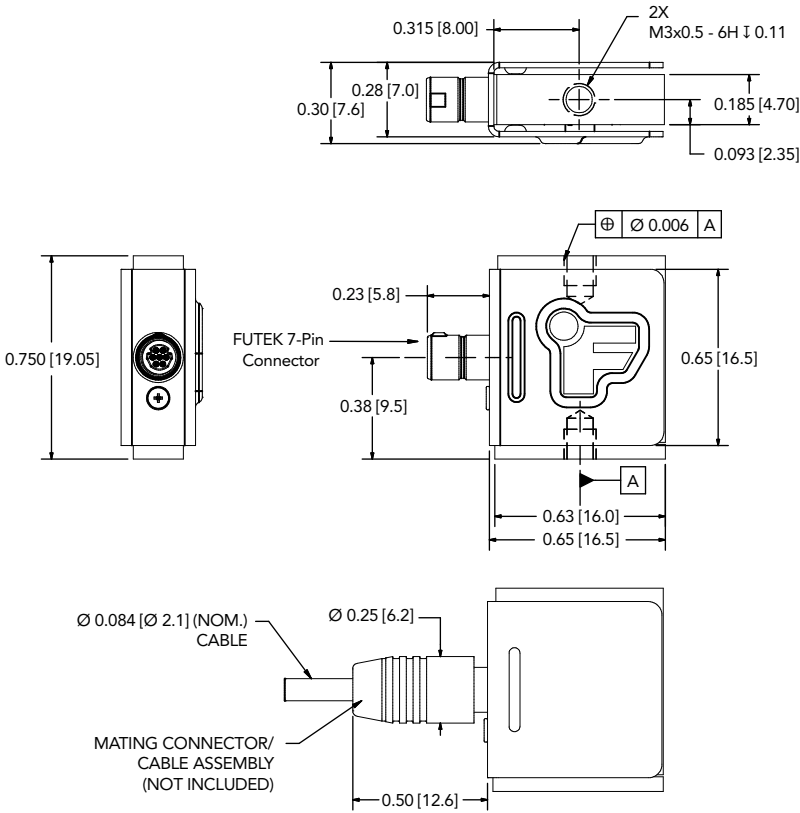
RoHS



U.S. Manufacturer

info@dspmindustria.it www.dspmindustria.it

DIMENSIONS inches [mm]

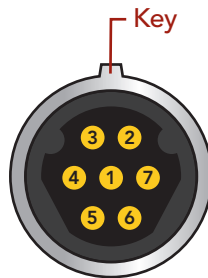


CAPACITIES

ITEM #	lb	N	Deflection (in)	Natural Frequency (Hz)
FSH04401	250 g	2.5	0.003	690
FSH04085	1	4.5	0.005	690
FSH04101	2	8.9	0.004	1180
FSH04100	5	22.2	0.003	2180
FSH04099	10	44.5	0.003	3010
FSH04097	25	111	0.003	5380
FSH04422	50	222	0.003	6620
FSH04416	100	445	0.004	8250

WIRING CODE FUTEK 7-PIN CONNECTOR

PIN	DESCRIPTION	COLOR
1	- Excitation	Black
2	+ Signal	Green
3	+ Excitation	Red
4	- Signal	White
5	Temperature + TEDS Ground	Blue
6	Temperature Data	Brown
7	TEDS Data	Orange



Drawing Number: FI1452-C

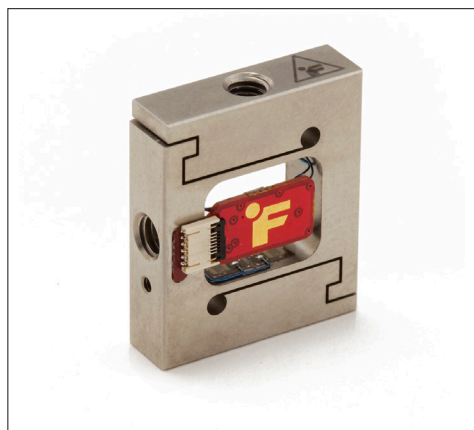
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www.futek.com

RoHS



U.S. Manufacturer



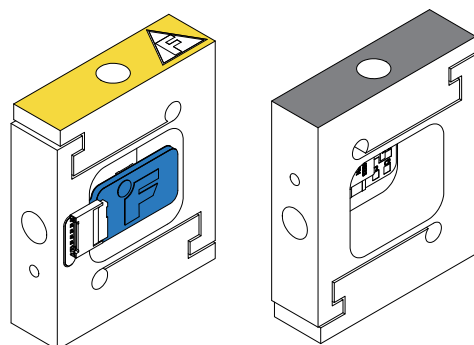
FEATURES

- OEM version, Integrated FPC style connector
- Heat treated stainless-steel flexure design for optimal fatigue life and off center loading capabilities
- High performance tension and compression load cell
- Light weight, miniature size
- Integrated overload protection
- Notable nonrepeatability

 Non-loading surface, do not contact

 Active End

 Fixed End



SPECIFICATIONS

PERFORMANCE

Nonlinearity	±0.1% of RO
Hysteresis	±0.1% of RO
Nonrepeatability	±0.05% of RO

ELECTRICAL

Rated Output (RO)	1 mV/V nom (250 g) 2 mV/V nom (1 - 100 lb)
Excitation (VDC or VAC)	10 max
Bridge Resistance	350 Ohm nom
Insulation Resistance	≥500 MOhm @ 50 VDC
Connection	7 Pin FPC Connector HIROSE FH53M-7S-0.25SHW(99)

MECHANICAL

Weight (approximate)	0.3 oz [9 g]
Safe Overload	1000% of RO (1-25 lb) 200% tension only (50-100 lb)
Material	17-4 PH stainless-steel body

TEMPERATURE

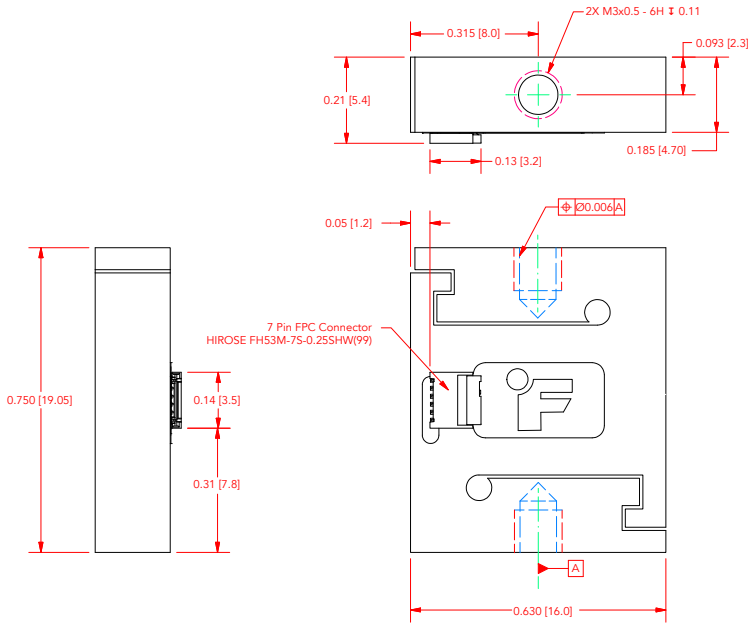
Operating Temperature	-60 to 200°F [-50 to 93°C]
Compensated Temperature	60 to 160°F [15 to 72°C]
Temperature Shift Zero	±0.005% of RO/°F [0.009% of RO/°C]
Temperature Shift Span	±0.005% of Load/°F [0.009% of Load/°C]

CALIBRATION

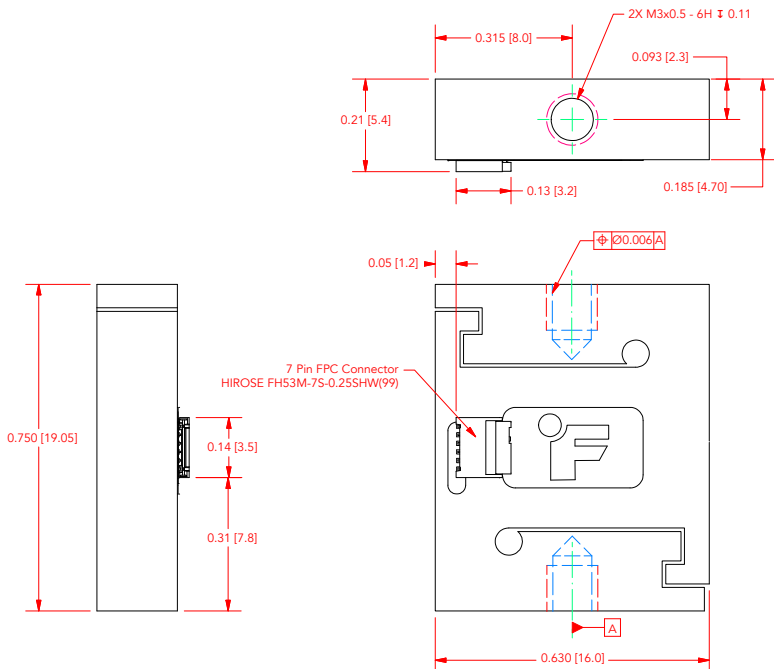
Calibration Test Excitation	5 VDC
Calibration (standard)	Certificate of Conformance
Calibration (available)	5-pt Tension and Compression
Shunt Calibration Value	100 kOhm (250 g) 60.4 kOhm (1-100 lb)

DIMENSIONS inches [mm]

LOWER CAPACITIES (250 g – 25 lb)



HIGHER CAPACITIES (50 lb, 100 lb)

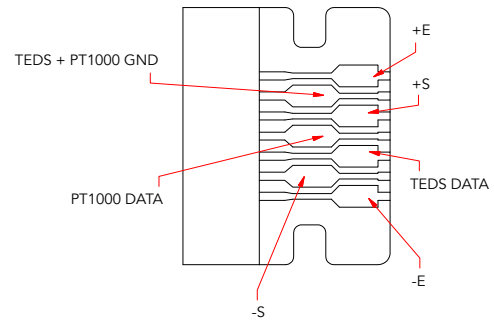


CAPACITIES

ITEM #	lb	N	Deflection (in)	Natural Frequency (Hz)
QSH01998	250 g	2.5	0.003	690
QSH01999	1	4.5	0.005	690
QSH02000	2	8.9	0.004	1180
QSH02001	5	22.2	0.003	2180
QSH02002	10	44.5	0.003	3010
QSH02003	25	111	0.003	5380
QSH02004	50	222	0.003	6620
QSH02005	100	445	0.004	8250

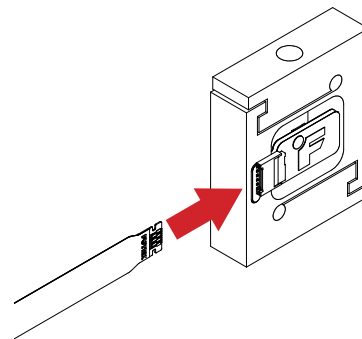
CONNECTION

Mating Flex Circuit Connections



Refer to HRS
FH53M-75-0.25SHW(99) Document
EDC-364112-99-00 for full dimensional details

Mating Load Cell Flex Circuit (Not Included)



Drawing Number: FI1508

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