



#### FEATURES

- Minimal mounting clearance
- 17-4 PH stainless-steel construction
- For use in both tension and compression
- Utilizes metal foil strain gauge technology
- Environmental Protection, IP67 Rated
- Fast Response time
- Water Resistant and Outdoor Rated

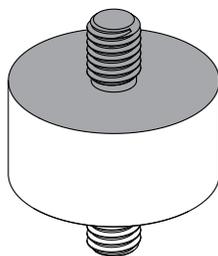
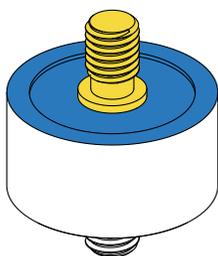
 Non-loading surface, do not contact

 Active End

 Fixed End

+ Output (tension)

- Output (compression)



#### SPECIFICATIONS

##### PERFORMANCE

Nonlinearity  $\pm 0.25\%$  of RO

Hysteresis  $\pm 0.25\%$  of RO

Nonrepeatability  $\pm 0.1\%$  of RO

##### ELECTRICAL

Rated Output (RO) 2 mV/V nom

Excitation (VDC or VAC) 15 max

Bridge Resistance 740 Ohm nom

Insulation Resistance  $\geq 500$  MOhm @ 50 VDC

Connection 4 Position Micro Receptacle

Wiring/Connector Code CC19

##### MECHANICAL

Weight 1.5 oz [42.5 g]

Safe Overload 150% of RO

Deflection See chart on next page

Material (flexure) 17-4 PH stainless-steel

IP Rating IP67

##### TEMPERATURE

Operating Temperature  $-60$  to  $200^{\circ}\text{F}$  ( $-50$  to  $93^{\circ}\text{C}$ )

Compensated Temperature  $60$  to  $160^{\circ}\text{F}$  ( $15$  to  $72^{\circ}\text{C}$ )

Temperature Shift Zero  $\pm 0.005\%$  of RO/ $^{\circ}\text{F}$  ( $\pm 0.01$  of RO/ $^{\circ}\text{C}$ )

Temperature Shift Span  $\pm 0.02\%$  of load/ $^{\circ}\text{F}$  ( $\pm 0.036$  of load/ $^{\circ}\text{C}$ )

##### CALIBRATION

Calibration Test Excitation 10 VDC

Calibration (standard) 5-pt Tension

Calibration (available) Compression

Shunt Calibration Value 100 kOhm

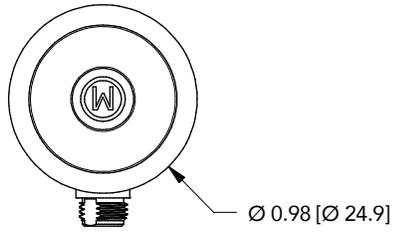
##### CONFORMITY

RoHS EU 2015/863

CE EN55011; EN61326-1

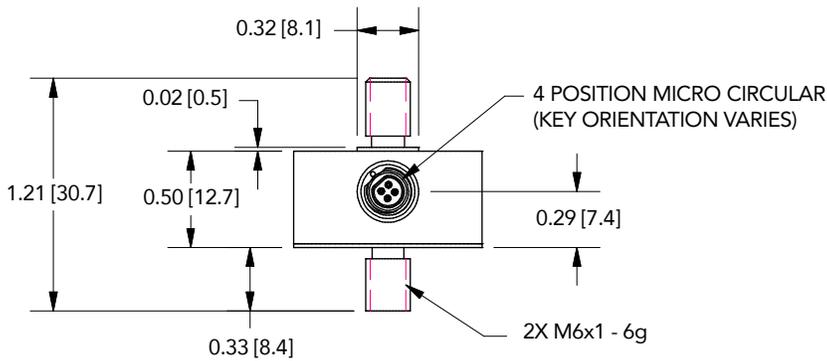
## DIMENSIONS inches [mm]

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



## FUTEK 4 PIN MICRO CIRCULAR (CC19)

1	+ EXCITATION	Red
2	- EXCITATION	Black
3	- SIGNAL	White
4	+ SIGNAL	Green



## CAPACITIES

ITEM #	lb	N	Deflection (in)	Natural Frequency (kHz)
FSH04530	50	223	0.002	6.1
FSH04531	100	445	0.001	10.9
FSH04532	250	1112	0.001	17
FSH04533	500	2224	0.001	23
FSH04534	1000	4448	0.001	29



Drawing Number: F11534

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

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



RoHS



U.S. Manufacturer



## FEATURES

- Minimal mounting clearance
- 17-4 PH stainless-steel construction
- For use in both tension and compression
- Utilizes metal foil strain gauge technology
- Adheres to RoHS Directive 2015/863/EU
- Accessories and related instruments available

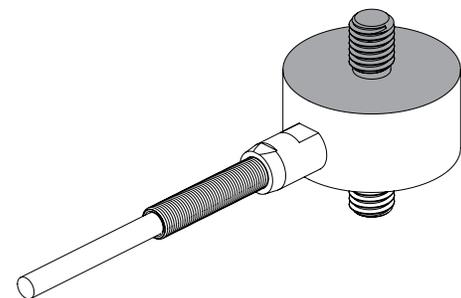
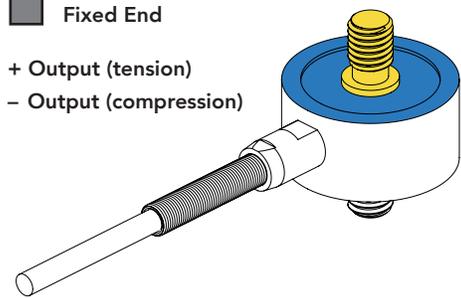
 Non-loading surface, do not contact

 Active End

 Fixed End

+ Output (tension)

- Output (compression)



## SPECIFICATIONS

### PERFORMANCE

Nonlinearity  $\pm 0.25\%$  of RO

Hysteresis  $\pm 0.25\%$  of RO

Nonrepeatability  $\pm 0.1\%$  of RO

### ELECTRICAL

Rated Output (RO) 2 mV/V nom

Excitation (VDC or VAC) 15 max

Bridge Resistance 740 Ohm nom

Insulation Resistance  $\geq 500$  MOhm @ 50 VDC

Connection #28 AWG, 4 conductor braided-shielded PVC cable 10 ft (3 m) long

Wiring/Connector Code WC1

### MECHANICAL

Weight (minus cable) 1.5 oz [42.5 g]

Safe Overload 150% of RO

Deflection 0.001 in [0.03 mm] nom

Material (flexure) 17-4 PH stainless-steel

IP Rating IP64

### TEMPERATURE

Operating Temperature  $-45$  to  $200^{\circ}\text{F}$  ( $-42$  to  $93^{\circ}\text{C}$ )

Compensated Temperature 60 to  $160^{\circ}\text{F}$  (15 to  $72^{\circ}\text{C}$ )

Temperature Shift Zero  $\pm 0.005\%$  of RO/ $^{\circ}\text{F}$  ( $\pm 0.01$  of RO/ $^{\circ}\text{C}$ )

Temperature Shift Span  $\pm 0.02\%$  of load/ $^{\circ}\text{F}$  ( $\pm 0.036$  of load/ $^{\circ}\text{C}$ )

### CALIBRATION

Calibration Test Excitation 10 VDC

Calibration (standard) 5-pt Tension

Calibration (available) Compression

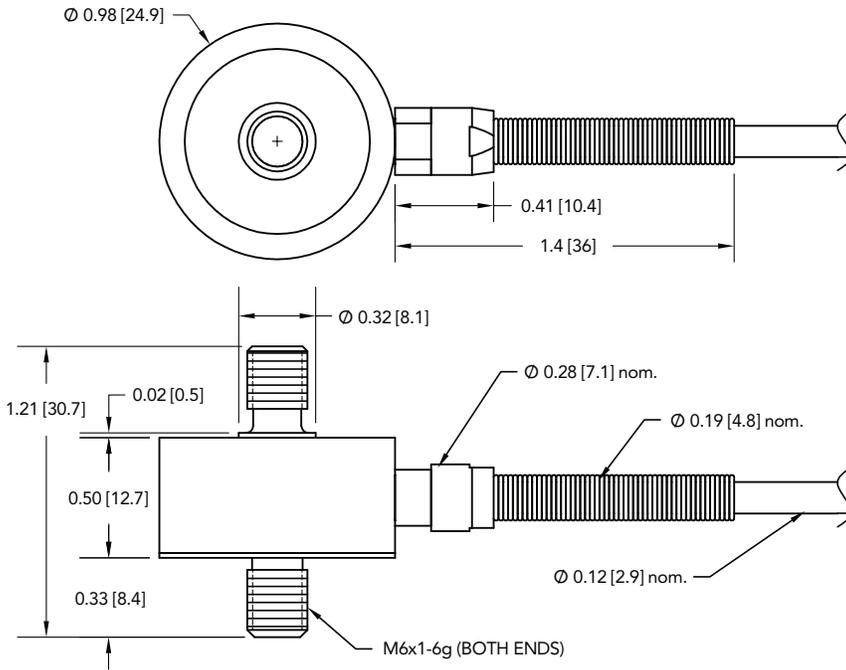
Shunt Calibration Value 100 kOhm

### CONFORMITY

RoHS EU 2015/863

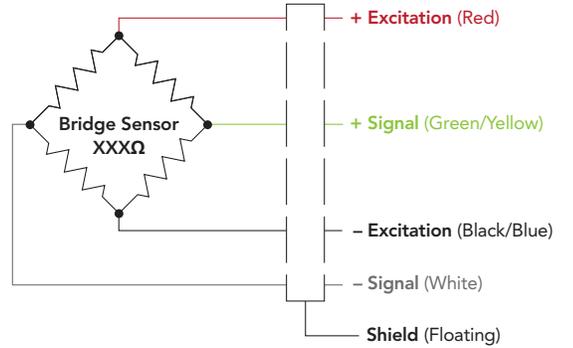
CE EN55011; EN61326-1

**DIMENSIONS** inches [mm]



**WIRING CODE (WC1 WITH SHIELD)**

RED	+ EXCITATION
BLACK	- EXCITATION
GREEN	+ SIGNAL
WHITE	- SIGNAL
SHIELD	FLOATING



**CAPACITIES**

ITEM #	lb	N	Natural Frequency (kHz)
FSH03884	50	223	7.5
FSH03885	100	445	10.2
FSH03886	250	1112	16.2
FSH03887	500	2224	22.9
FSH03888	1000	4448	30.1



Drawing Number: F11059-G

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