




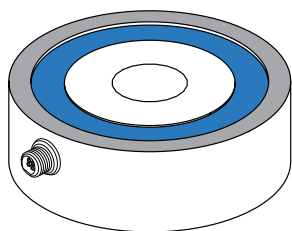
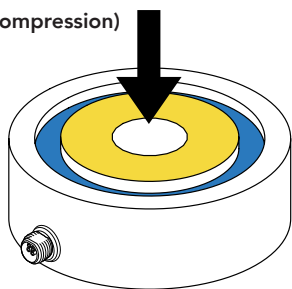


## FEATURES

- Compatible in load washer applications
- Offered in a variety of capacities and inner diameters
- Low power consumption
- Fast response ( $\mu$ s) and low deflection
- Environmental Protection, IP67 Rated
- Water Resistant and Outdoor Rated
- Quick Disconnect Cable

-  Non-loading surface, do not contact
-  Active End
-  Fixed End

+ Output (compression)



## SPECIFICATIONS

### PERFORMANCE

Nonlinearity	$\pm 0.5\%$ of RO
Hysteresis	$\pm 0.5\%$ of RO $\pm 1\%$ of RO (50,000 lbs)
Nonrepeatability	$\pm 0.5\%$ of RO

### ELECTRICAL

Rated Output (RO)	2 mV/V nom
Excitation (VDC or VAC)	18 max
Bridge Resistance	700 Ohm nom
Insulation Resistance	$\geq 500$ MOhm @ 50 VDC
Connection	4 Position Micro Receptacle
Wiring Code	CC19

### MECHANICAL

Capacities	Refer to online store for available capacities (up to 50,000 lbs) and ID Size Combinations.
Weight (approximate)	26 oz [737 g]
Safe Overload	150% of RO
Deflection	0.002 in [0.05 mm] nom
Material	17-4 PH stainless-steel
IP Rating	IP67

### TEMPERATURE

Operating Temperature	-60 to 200°F (-50 to 93°C)
Compensated Temperature	60 to 160°F (15 to 72°C)
Temperature Shift Zero	$\pm 0.005\%$ of RO/°F (0.01% of RO/°C)
Temperature Shift Span	$\pm 0.005\%$ of Load/°F (0.01% of Load/°C)

### CALIBRATION

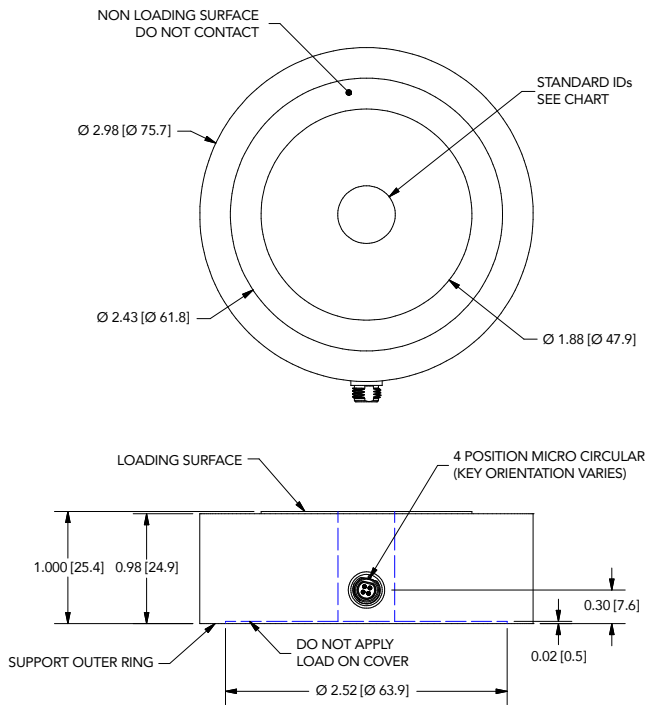
Calibration Test Excitation	10 VDC
Calibration (standard)	5-pt Compression
Shunt Calibration Value	100 kOhm

### CONFORMITY

RoHS	EU 2015/863
CE	EN55011; EN61326-1

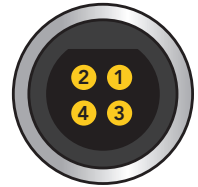
## DIMENSIONS inches [mm]

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



## FUTEK 4 PIN MICRO CIRCULAR (CC19)

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



**Note:** While torquing bolts, high tension forces will occur during installation, which could result in overloading the sensor. FUTEK recommends connecting the sensor to a system in order to monitor the applied forces. FUTEK is not liable or responsible for the mishandling of the sensor during installation.

## INNER DIAMETER (Actual)

ID	Dimension $\begin{matrix} +0.01 \\ -0.00 \end{matrix} \left[ \begin{matrix} +0.25 \\ -0.00 \end{matrix} \right]$
3/8	0.384 [9.75]
1/2	0.509 [12.93]
9/16	0.572 [14.53]
5/8	0.634 [16.10]
3/4	0.769 [19.53]
7/8	0.894 [22.71]
1	1.019 [25.88]
1 1/4	1.269 [32.23]

Drawing Number: F11552

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

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



RoHS



U.S. Manufacturer



### FEATURES

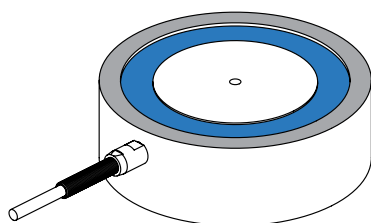
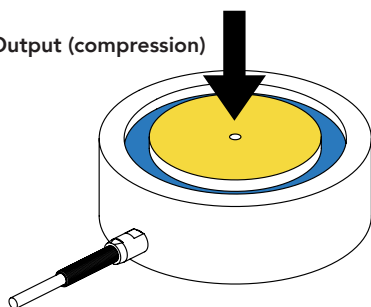
- Fast response time
- Robust strain relief
- Compatible in load washer applications
- Offered in a variety of capacities and inner diameters

 Non-loading surface, do not contact

 Active End

 Fixed End

+ Output (compression)



### SPECIFICATIONS

#### PERFORMANCE

Nonlinearity	±0.5% of RO
Hysteresis	±0.5% of RO
Nonrepeatability	±0.5% of RO

#### ELECTRICAL

Rated Output (RO)	2 mV/V nom
Excitation (VDC or VAC)	18 max
Bridge Resistance	700 Ohm nom
Insulation Resistance	≥500 MOhm @ 50 VDC
Connection	#24 AWG, 4 conductor, braided shielded Teflon cable, 10 ft [3 m] long

Wiring/Connector Code WC1

#### MECHANICAL

Capacities	15000 lb* [66723 N]*, 30000 lb* [133440 N]*, 50000 lb* [222400 N]*
Weight (approximate)	26 oz [737 g]
Safe Overload	150% of RO
Deflection	0.002 in [0.05 mm] nom
Material	17-4 PH stainless-steel
IP Rating	IP64

#### 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 (0.01% of RO/°C)
Temperature Shift Span	±0.005% of Load/°F (0.01% of Load/°C)

#### CALIBRATION

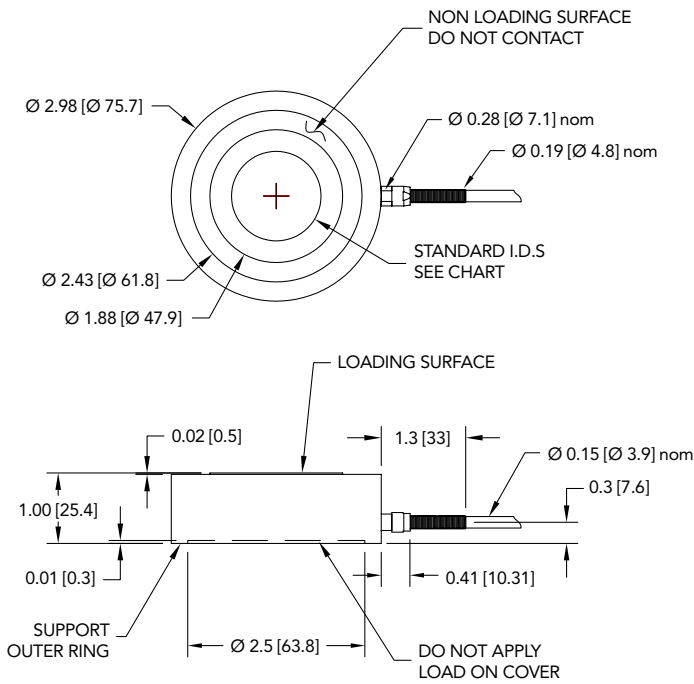
Calibration Test Excitation	10 VDC
Calibration (standard)	5-pt Compression
Shunt Calibration Value	100 kOhm

\*Commonly stocked capacities

#### CONFORMITY

RoHS	EU 2015/863
CE	EN55011; EN61326-1

## DIMENSIONS inches [mm]



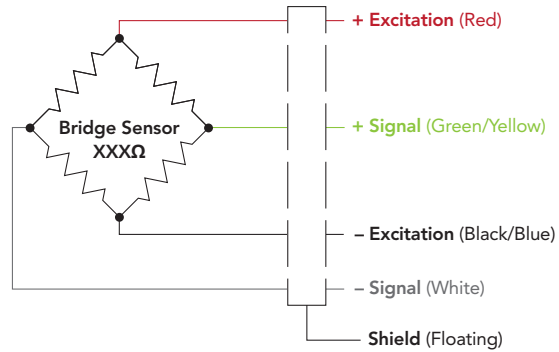
## INNER DIAMETER

ID	Dimension <sup>+0.01</sup> <sub>-0.00</sub> [ <sup>+0.25</sup> <sub>-0.00</sub> ]
1/8	0.134 [3.40]
3/16	0.197 [5.01]
1/4	0.259 [6.58]
3/8	0.384 [9.75]
7/16	0.447 [11.35]
1/2	0.509 [12.93]
5/8	0.634 [16.10]
3/4*	0.769 [19.53]
7/8	0.894 [22.71]
1	1.019 [25.88]
1 1/4*	1.269 [32.23]

\*Commonly stocked inner diameters

## WIRING CODE (WC1 WITH SHIELD)

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



**Note:** While torquing bolts, high tension forces will occur during installation, which could result in overloading the sensor. FUTEK recommends connecting the sensor to a system in order to monitor the applied forces. FUTEK is not liable or responsible for the mishandling of the sensor during installation.

Drawing Number: F11427-B

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