

FUTEK MODEL LCM375

ITEM NUMBER: QSH01679

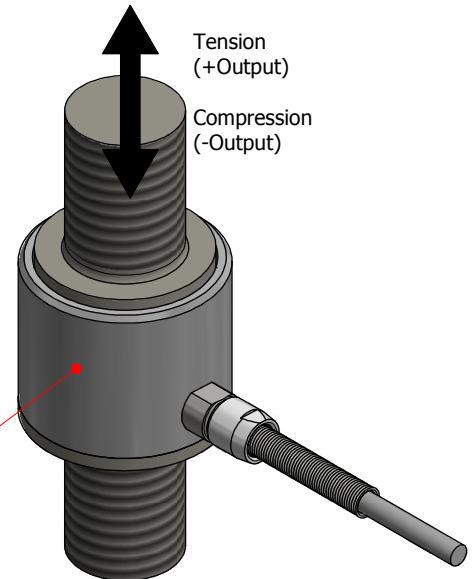
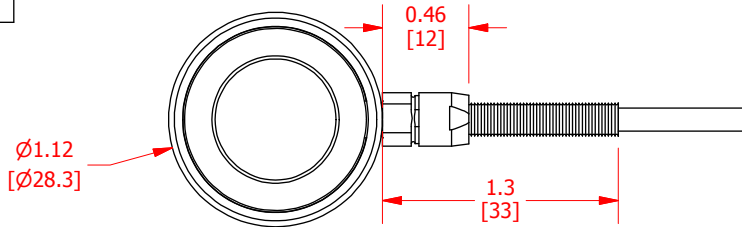
Miniature Inline Threaded
Tension/Compression Load Cell ,
Fatigue Rated

INCH [mm] | R.O.= Rated Output

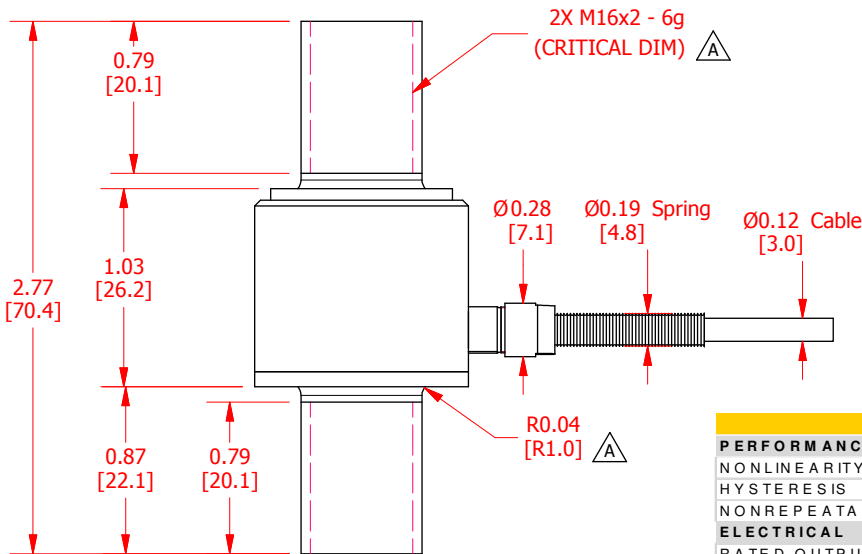
WIRING CODE (WC1)

+ Excitation	- Excitation	+Signal	-Signal
RED	BLACK	GREEN	WHITE

Shield
FLOATING



FUTEK LASER MARKED
F I C O N
LOGO
ITEM#
CAPACITY
S/N



SPECIFICATIONS

PERFORMANCE	
NONLINEARITY	±0.5% of R.O.
HYSTERESIS	±0.5% of R.O.
NONREPEATABILITY	±0.1% of R.O.
ELECTRICAL	
RATED OUTPUT	2 mV/V +/-0.25% (Tension Adjusted)
EXCITATION (VDC OR VAC)	18 Max, 10 nom.
BRIDGE RESISTANCE	350 Ω nom.
INSULATION RESISTANCE	>500 Mohm @ 50 VDC.
CONNECTION	#28 Awg 4 Conductor Braided Shielded PVC Cable, 10 ft [3 m] Long
MECHANICAL	
CAPACITY	10000 lb. [44400N]
WEIGHT w/ cable	< 0.55 lb (250 g)
SAFE OVERLOAD	150 % of R.O.
MAX OVERLOAD	300 % of R.O.
MATERIAL	17-4 PH S.S.
IP RATING	IP 65
DEFLECTION	0.002 in [0.05 mm]
NATURAL FREQUENCY	> 14 kHz
TEMPERATURE	
OPERATING TEMP	-60 to 221 °F (-51 to 105 °C)
COMPENSATED TEMP.	-40 to 221 °F (-40 to 105 °C)
TEMP. SHIFT ZERO	±0.005% of R.O./°F (±0.009 of R.O./°C)
TEMP. SHIFT SPAN	±0.02% of LOAD/°F (±0.036 of LOAD/°C)
CALIBRATION	
6 pt TENSION AND COMPRESSION	



SCIGATE AUTOMATION (S) PTE LTD

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CUSTOMER APPROVAL- COMPANY:

CUSTOMER APPROVAL- NAME / DATE:

REVISIONS: (Refer to dwg # revision sheet)

A	5-23-18
B	6-11-18
C	6-12-18

OUTLINE DRAWING

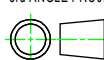
STANDARD NOTES: (Unless Otherwise Specified)

ALL DIMENSIONS ARE IN INCHES
 DRAWING INTERPRETATION DIMS. PER ASME-Y14.5
 REMOVE BURRS AND BREAK SHARP EDGES .005 - .015
 THREADS PER HANDBOOK H-28
 DIMENSIONS ARE SHOWN AFTER PLATING

ANGLE:
± 1/2°

CHAMFER:
± 5°

TOLERANCE:
.X ± 0.1"
.XX ± 0.01"
.XXX ± 0.005"



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MODEL: LCM375	DWG No.: FO1463-C
DRAWN BY: R. Walker	CREATED DATE: 5/8/2018
APPROVED BY: J. Vargas	APPROVED DATE: 5/11/2018
CHECKED BY:	CAGE: 1X8M6 SHEET: 1 OF 2

FUTEK MODEL LCM375

Miniature Inline Threaded Tension/Compression Load Cell , Fatigue Rated

ITEM NUMBER: QSH01679

INCH [mm] | R.O.= Rated Output

Ref Section	Title	A, T, I	Production	Qual Unit	Prototypes
3.1.1	Nonlinearity	Test	X	X	X
3.1.2	Hysteresis	Test	X	X	X
3.1.3	Nonrepeatability	Test		X	X
3.1.5.1	Compensated range	Test	X	X	X
3.1.5.2	Temp Shift Zero	Test	X	X	X
3.1.5.3	Temp Shift Span	Analysis			
3.2.1	Schematic △	Inspection	X	X	X
3.2.2	Rated Output	Test	X	X	X
3.2.3	Excitation Voltage	Test	X	X	X (1)
3.2.4	Bridge resistance	Test	X	X	X
3.2.5	Insulation resistance	Test	X	X	X
3.2.6	Electrical Interface (Wiring code)	Inspection	X	X	X
3.3.1.1	Direction (Tension +Output, Compression -Output)	Test	X	X	X
3.3.1.2	Full Scale	Test	X	X	X
3.3.1.3	Safe Overload	Test			X
3.3.1.4	Ultimate Overload	Test / Analysis			X
△ 3.3.4	Dimension	Inspection	X (2)	X (2)	X
3.3.5	Weight △	Inspection			X
3.3.6	Interfaces (threads)	Inspection	X (2)	X (2)	X
△ 3.3.7	Deflection	Analysis			
3.3.8	Natural Frequency	Test			X
3.4.1	Temperature and Altitude	Test		X	△
3.4.2	Temperature Variation	Test		X	
3.4.3	Humidity	Test		X	
3.4.4	Operational Shock and Crash Safety	Test			X
3.4.5	Vibration	Test			X
3.5.2	Reliability	Analysis			
3.6	Fatigue Strength	Analysis			
1) Calibration excitation 10VDC, Proto Unit tested up to 18VDC for stability					
△ 2) Critical dimensions inspected only					

CUSTOMER APPROVAL- COMPANY:	<h2 style="color: green; margin: 0;">OUTLINE DRAWING</h2> <p style="font-size: small; margin: 5px 0;">STANDARD NOTES: (Unless Otherwise Specified)</p> <p>ALL DIMENSIONS ARE IN INCHES DRAWING INTERPRETATION DIMS. PER ASME-Y14.5 REMOVE BURRS AND BREAK SHARP EDGES .005 - .015</p> <p>THREADS PER HANDBOOK H-28 DIMENSIONS ARE SHOWN AFTER PLATING</p> <p style="font-size: x-small;">3rd ANGLE PROJ.</p> <p style="font-size: x-small;">ANGLE: ± 1/2°</p> <p style="font-size: x-small;">CHAMFER: ± 5°</p> <p style="font-size: x-small;">TOLERANCE: .X ± 0.1" .XX ± 0.01" .XXX ± 0.005"</p>	This drawing is submitted solely for the information and exclusive use of the original addressee. It is not to be divulged in whole or in part, by any firm or individual without written permission from:	<b style="font-size: large;">FUTEK ADVANCED SENSOR TECHNOLOGY, INC. 10 THOMAS, IRVINE, CA 92618 USA Phone: (949) 465-0900 Fax: (949) 465-0905
CUSTOMER APPROVAL- NAME / DATE:		MODEL: <b style="color: green; font-size: large;">LCM375 DWG No.: <b style="color: green; font-size: large;">FO1463-C	
REVISIONS: (Refer to dwg # revision sheet)	DRAWN BY: <i>R. Walker</i> CREATED DATE: 5/8/2018 APPROVED BY: <i>J. Vargas</i> APPROVED DATE: 5/11/2018 CHECKED BY: _____ CAGE: 1X8M6 SHEET: 2 OF 2		