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FUTEK MODEL LCM375

Miniature Inline Threaded Tension/Compression Load Cell , Fatigue Rated

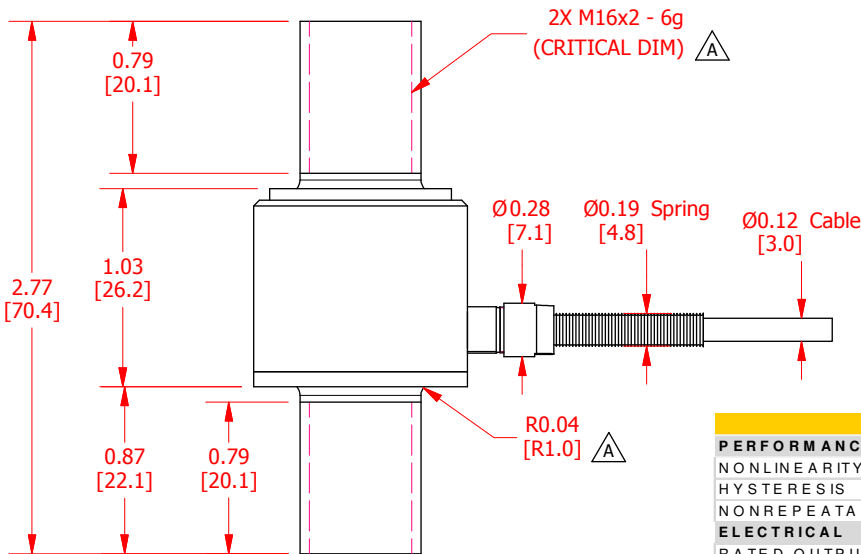
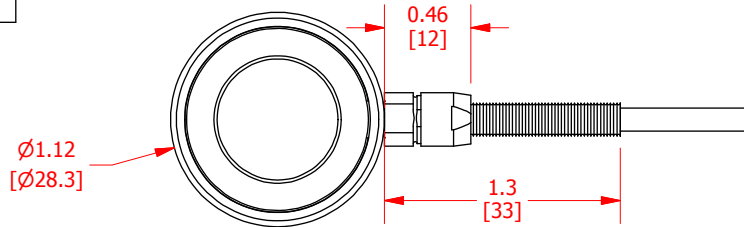
ITEM NUMBER: QSH01679

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

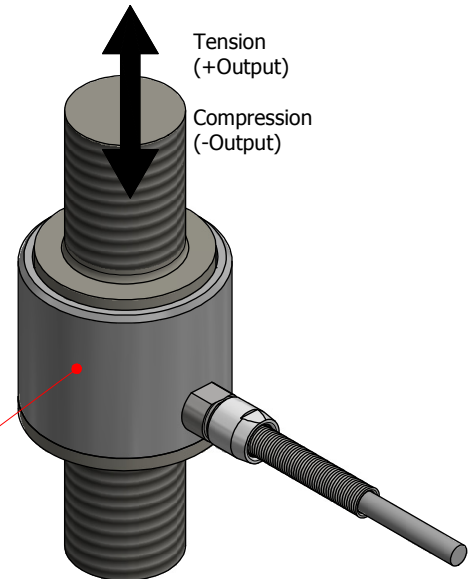
WIRING CODE (WC1)

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

Shield
FLOATING



FUTEK LASER MARKED
F I C O N
L O G O
I T E M #
C A P A C I T Y
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	

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

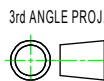
STANDARD NOTES: (Unless Otherwise Specified)

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 △A	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 △B	Inspection	X (2)	X (2)	X
3.3.5	Weight △A	Inspection			X
3.3.6	Interfaces (threads)	Inspection	X (2)	X (2)	X
3.3.7	Deflection △B	Analysis			
3.3.8	Natural Frequency	Test			X
3.4.1	Temperature and Altitude	Test		X	△A
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					
△C △A	2) Critical dimensions inspected only				

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REVISIONS: (Refer to dwg # revision sheet)

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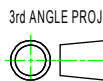
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