

# MT2E

## Test Applications • Incremental Encoder

Compact String Pot • 30-inch Stroke Range  
 Dual Axis 360° Mounting Bracket  
 Flight/Crash Test Applications  
 Aluminum & Polycarbonate Enclosure



### GENERAL

Full Stroke Range	0-30 inches, min.
Output Signal	incremental encoder
Accuracy	0.04% full stroke (contact factory for higher accuracy)
Repeatability	± 0.02% full stroke
Resolution	316 ± 7 pulses per inch (13 ± 1 pulses per mm)
Measuring Cable	Ø.019-in. nylon-coated stainless steel
Enclosure Material	anodized aluminum
Sensor Cover	polycarbonate
Sensor	optical incremental encoder
Weight	0.5 lb. max.

### ELECTRICAL

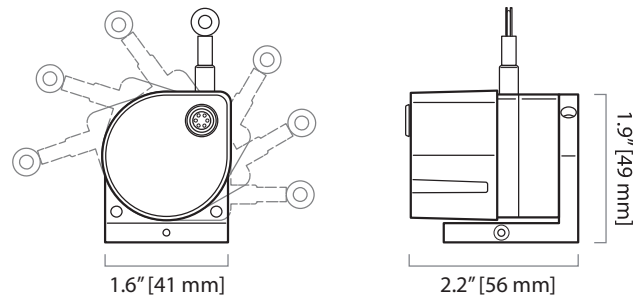
Input Voltage	5 - 26 VDC
Input Current	35 mA, no load
Output Driver	push-pull, 20 mA source/sink
Output Voltage	equal to the input voltage
Mating Plug	LEMO FGG.OB.304.CLAD52

### MECHANICAL

Measuring Cable Tension Options	9, 14 and 33 oz.
Maximum Measuring Cable Acceleration	136 g

### ENVIRONMENTAL

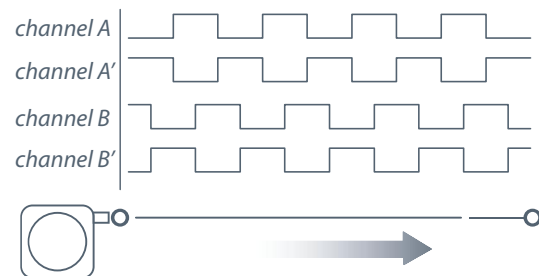
Operating Temperature	32° to 158° F ( 0° to 70°C)
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The MT2E is our new encoder-based member to our family of rugged, accurate miniature cable-extension position transducers. The Celesco MT2E features a highly-tensioned heavy-duty measuring cable that was designed for the high-acceleration demands encountered in flight testing and automotive crash tests.

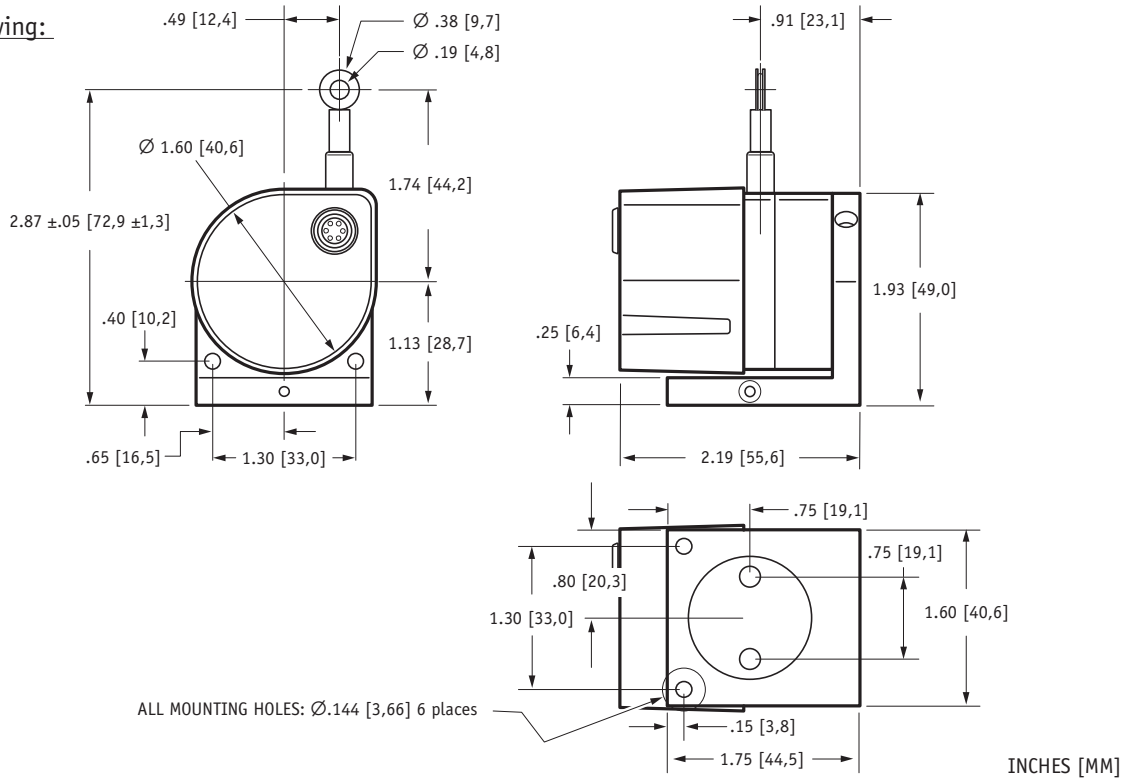
The MT2E was designed with 2-axis 360° rotation in its mounting bracket which allows for fast and simple installation in any direction.

### Output Signal



-- see ordering information for available channels

**Outline Drawing:**



**Ordering Information:**

**Model Number:**

**MT2E - 30 - - 316 -**  
*order code:*                      **A**                      **B**                      **C**

Sample Model Number:

**MT2E - 30E - 33 - 316 - M1**

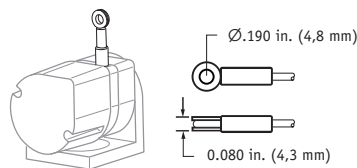
- R** range: 30 inches
- A** measuring cable termination: eyelet
- B** measuring cable tension: 33 oz. (±6 oz.)
- C** electrical connection: end-mounted connecto

**Measuring Cable Termination:**

**A** *order code:*

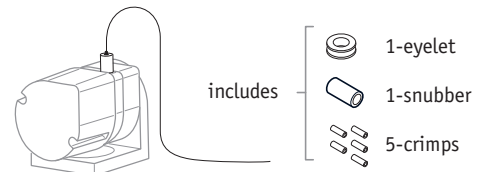
**E**

Eyelet



**L**

Leader Cable (24 in. long)



**Measuring Cable Tension:**

**B** *order code:*

**9**


**14**

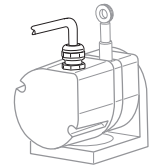
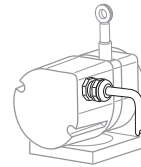
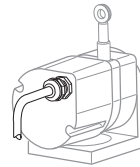
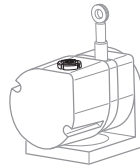
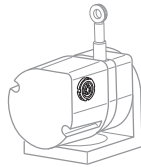
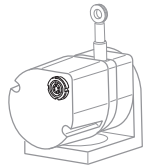
**33**

	<b>9</b>	<b>14</b>	<b>33</b>
tension:	9 (±2) oz.	14 (±4) oz.	33 (±6) oz.
max. cable acceleration:	99 g	136 g	136 g
spring cycle-life, 25-inch extension:	≥ 1 million	150,000	75,000
spring cycle-life, 15-inch extension:	≥ 1 million	≥ 1 million	≥ 1 million


Ordering Information (cont.):

**Electrical Connection:**

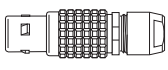
 <i>order code:</i>	M1	M2	M3	C1	C2	C3
connection:	end-mount connector	side-mount connector	top-mount connector	end-mount strain relief	side-mount strain relief	top-mount strain relief
available channels:	A, B	A, B	A, B	A, A', B, B'	A, A', B, B'	A, A', B, B'



**4-pin Connector**



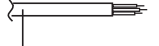
contact view



Lemo FGG.0B.304.CLAD52

pin#	signal
1	input voltage (V+)
2	common (gnd.)
3	channel A
4	channel B

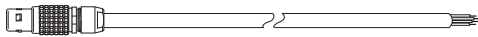
**Instrumentation Cable**



24 gauge, shielded, 15 ft. long

color	signal
Red	input voltage (V+)
Black	common (gnd.)
Green	channel A
White	channel B
Blue	channel A
Brown	channel B

Accessories:



Part Number	Description
9603957-0015	15 ft. long cordset. Includes mating connector with 15 ft., 24 gauge, shielded multiconductor cable

version: 5.1 last updated: April 15, 2013