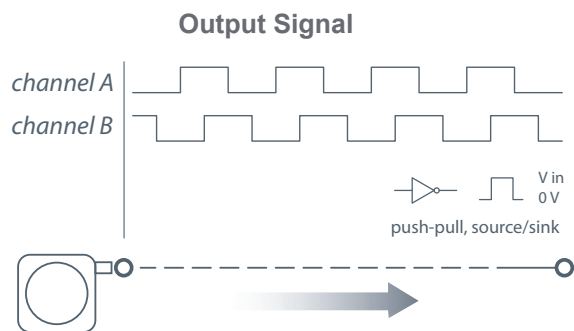




The MT2E1 is the encoder-based member of our family of rugged, accurate miniature cable-actuated position transducers. The MT2E1 features a highly-tensioned heavy-duty measuring cable that was designed for the high-acceleration demands encountered in drop testing and automotive crash tests.

The MT2E1 was designed with 2-axis 360° rotation in its mounting bracket which allows for fast and simple installation in any direction.



MT2E1

Cable-Actuated Position Sensor

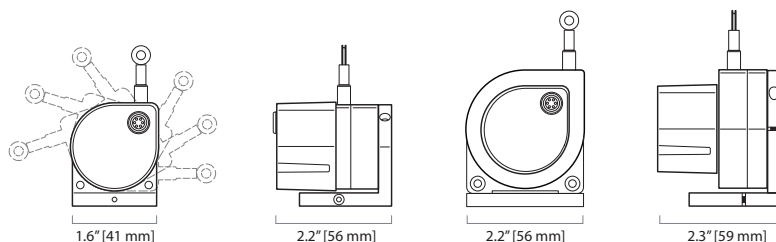
Incremental Encoder Output • Test Applications

Compact String Pot • 0-30 & 0-50 inch Stroke Range Options

Dual Axis 360° Mounting Bracket

Drop and Crash Test Applications

Aluminum & Polycarbonate Enclosure



30 inch

50 inch

GENERAL

Full Stroke Range Options

Output Signal

Accuracy

Repeatability

Resolution:

30-inch Range

50-inch Range

Measuring Cable

Enclosure Material

Sensor Cover Options

Sensor

Weight, 30-inch

Weight, 50-inch

0-30, 0-50 inches

incremental encoder

0.04% full stroke

± 0.02% full stroke

316 ± 5 pulses per inch

188 ± 2 pulses per inch

Ø.019-in. nylon-coated stainless steel

anodized aluminum

polycarbonate and aluminum

optical incremental encoder

0.5 lb. max.

1.0 lb. max.

ELECTRICAL

Input Voltage, Vin

Input Current

Output Driver

Output Voltage, Vout

Mating Plug

5 - 26 VDC

50 mA (max, no load)

push-pull (sink/source, 20mA max.)

Vout = Vin

LEMO FGG.OB.304.CLAD52

MECHANICAL

Measuring Cable Tension

Maximum Acceleration

see ordering information

see ordering information

ENVIRONMENTAL

Operating Temperature

-32° to 158° F (0° to 70°C)

Fig. 1 - Outline Drawing, 30-inch range:

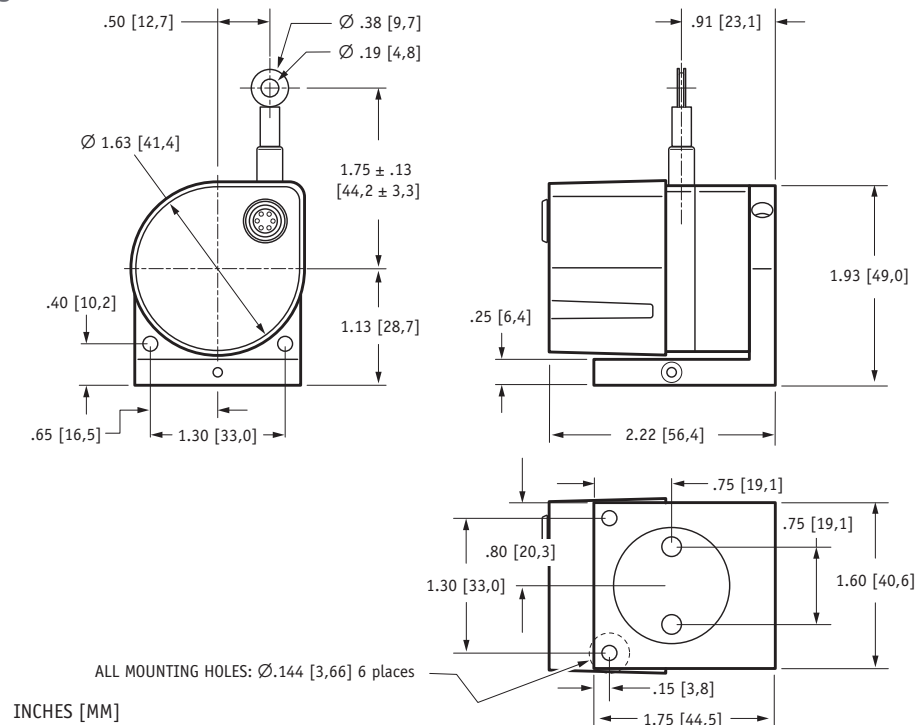
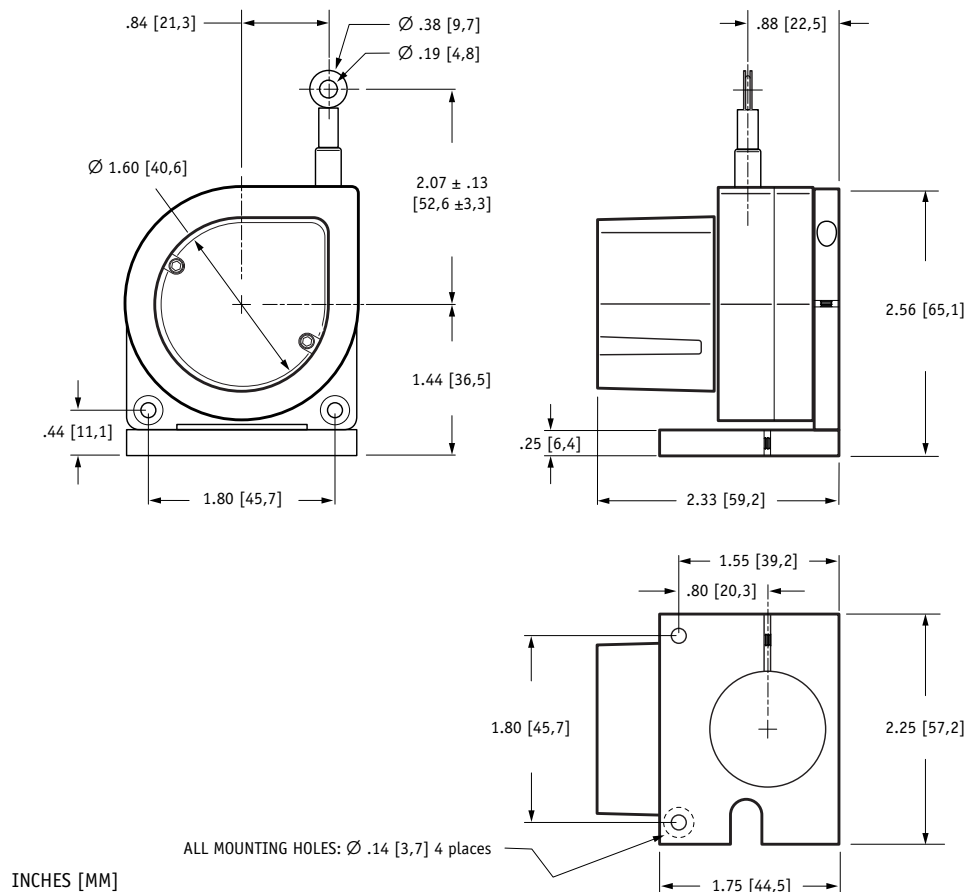


Fig. 2 - Outline Drawing, 50-inch range:



Ordering Information:

Model Number:

30-inch Ordering Guide

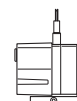
MT2E1 - 30 A - B - **316** - C

order code:

Sample Model Number:

MT2E1 - 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 connector



see fig. 1

50-inch Ordering Guide

MT2E1 - 50 A - B - **188** - C

order code:

Sample Model Number:

MT2E1 - 50E - 22 - 188 - M1

R range: 50 inches
A measuring cable termination: eyelet
B measuring cable tension: 22 oz. (±6 oz.)
C electrical connection: end-mounted connector



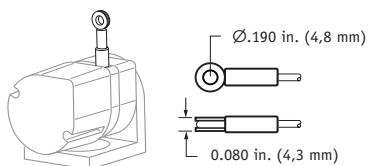
see fig. 2

Measuring Cable Termination:

A order code:

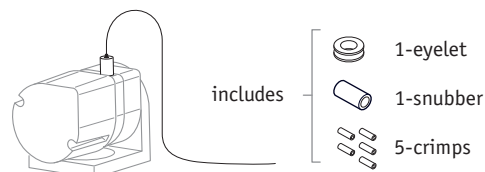
E

Eyelet



L

Leader Cable (24 in. long)



Measuring Cable Tension:

B order code:

9

14

33

30-inch range option:	9 (±3) oz.	14 (±5) oz.	33 (±10) oz.
max. cable acceleration:	99 g	136 g	136 g
spring cycle-life, 80% extension:	≥ 1 million	150,000	75,000
spring cycle-life, 50% extension:	≥ 1 million	≥ 1 million	≥ 1 million

B order code:

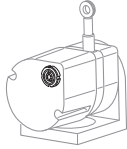
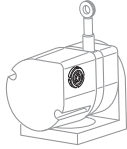
9

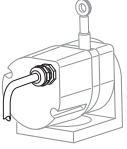
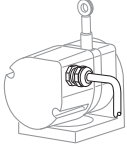
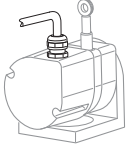
22

50-inch range option:	9 (±3) oz.	22 (±7) oz.
max. cable acceleration:	46 g	68 g
spring cycle-life, 80% extension:	≥ 1 million	150,000
spring cycle-life, 50% extension:	≥ 1 million	≥ 1 million

Ordering Information (cont.):

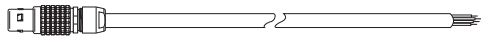
Electrical Connection:

	M1		M2		M3	
	order code:		order code:		order code:	
sensor cover:	polycarbonate	aluminum	polycarbonate	aluminum	polycarbonate	aluminum
electrical connection:		end-mount connector <i>mating plug included</i>		side-mount connector <i>mating plug included</i>		top-mount connector <i>mating plug included</i>

	C1		C2		C3	
	order code:		order code:		order code:	
sensor cover:	polycarbonate	aluminum	polycarbonate	aluminum	polycarbonate	aluminum
electrical connection:		end-mount instrumentation cable <i>15-ft. long, 24 gauge shielded</i>		side-mount instrumentation cable <i>15-ft. long, 24 gauge shielded</i>		top-mount instrumentation cable <i>15-ft. long, 24 gauge shielded</i>

4-pin Mating Plug		Instrumentation Cable																					
		<table><tr><th>pin#</th><th>signal</th></tr><tr><td>1</td><td>input voltage (V+)</td></tr><tr><td>2</td><td>common (gnd.)</td></tr><tr><td>3</td><td>channel A</td></tr><tr><td>4</td><td>channel B</td></tr></table>	pin#	signal	1	input voltage (V+)	2	common (gnd.)	3	channel A	4	channel B	<table><tr><th>color</th><th>signal</th></tr><tr><td>Red</td><td>input voltage (V+)</td></tr><tr><td>Black</td><td>common (gnd.)</td></tr><tr><td>Green</td><td>channel A</td></tr><tr><td>White</td><td>channel B</td></tr></table>	color	signal	Red	input voltage (V+)	Black	common (gnd.)	Green	channel A	White	channel B
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Red	input voltage (V+)																						
Black	common (gnd.)																						
Green	channel A																						
White	channel B																						
Lemo FG6.0B.304.CLAD52		24 gauge, shielded, 15 ft. long																					

Accessories:



Part Number	Description
9603957-0015	15 ft. long cordset. Includes mating connector with 15 ft., 24 gauge, shielded multiconductor cable. Signals: V+, Gnd, Channel A, Channel B