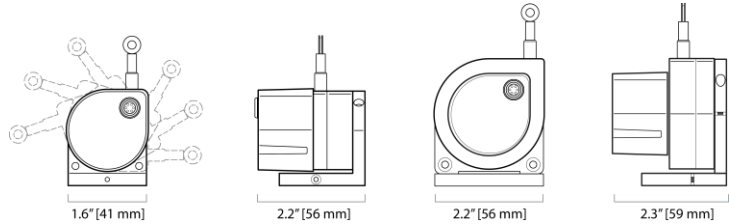


# MT2A

## Cable Actuated Sensor

### Test Applications • Voltage Divider

**Compact String Pot • Flight/Crash Test Applications**  
**Dual Axis 360° Mounting Bracket**  
**3, 9, 15, 30 and 50-inch Stroke Range Options**  
**Aluminum & Polycarbonate Enclosure • GAM Certification**

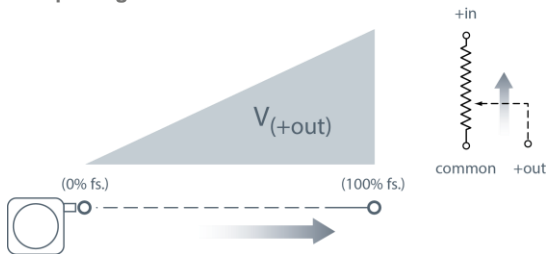


The MT2A is a member of our family of rugged, accurate miniature cable-extension position transducers designed specifically for test applications. One of the major benefits to this sensor is its 2-axis 360° rotating mounting bracket to allow for fast and simple installation in any direction.

The MT2A comes in 5 different measuring ranges: 0-3", 0-9", 0-15", 0-30", 0-50" and features a highly-tensioned heavy-duty measuring cable designed for the high-acceleration demands encountered in flight testing and automotive crash tests.

For extreme impact applications, a new rugged all aluminum sensor cover is now available!

#### Output Signal



#### General

<b>Full Stroke Range Options</b>	0-3, 0-9, 0-15, 0-30, 0-50 inches, min.
<b>Output Signal</b>	voltage divider (potentiometer)
<b>Accuracy</b>	± 1.1% to 0.15% full stroke (see ordering information)
<b>Repeatability</b>	± 0.02% full stroke
<b>Resolution</b>	essentially infinite
<b>Measuring Cable</b>	Ø.019-in. nylon-coated stainless steel
<b>Enclosure Material</b>	anodized aluminum
<b>Sensor Cover Options</b>	aluminum or polycarbonate
<b>Sensor</b>	conductive plastic-hybrid potentiometer
<b>Weight</b>	0.5 lb. max.

#### Electrical

<b>Input Resistance</b>	10K ohms (± 10%)
<b>Power Rating, Watts</b>	2.0 at 158°F (70° C), derated to 0 @ 255°F (125°C)
<b>Recommended Maximum Input Voltage</b>	30V (AC or DC)
<b>Electrical Stroke</b>	94% ±4% of input voltage
<b>Mating Plug</b>	LEMO FGG.OB.304.CLAD52

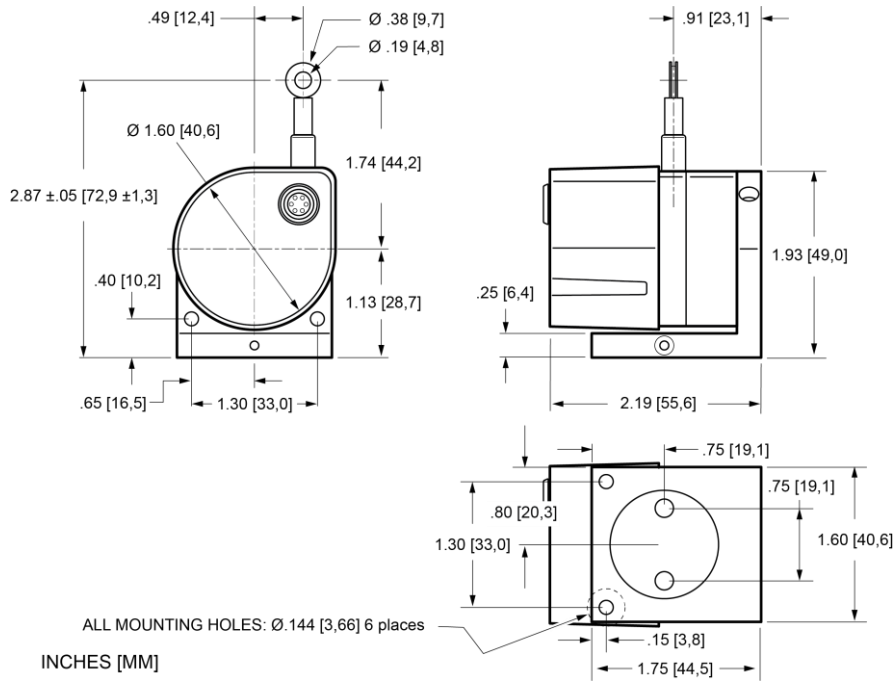
#### Mechanical

<b>Measuring Cable Tension Options</b>	see ordering information
<b>Maximum Measuring Cable Acceleration</b>	136 g

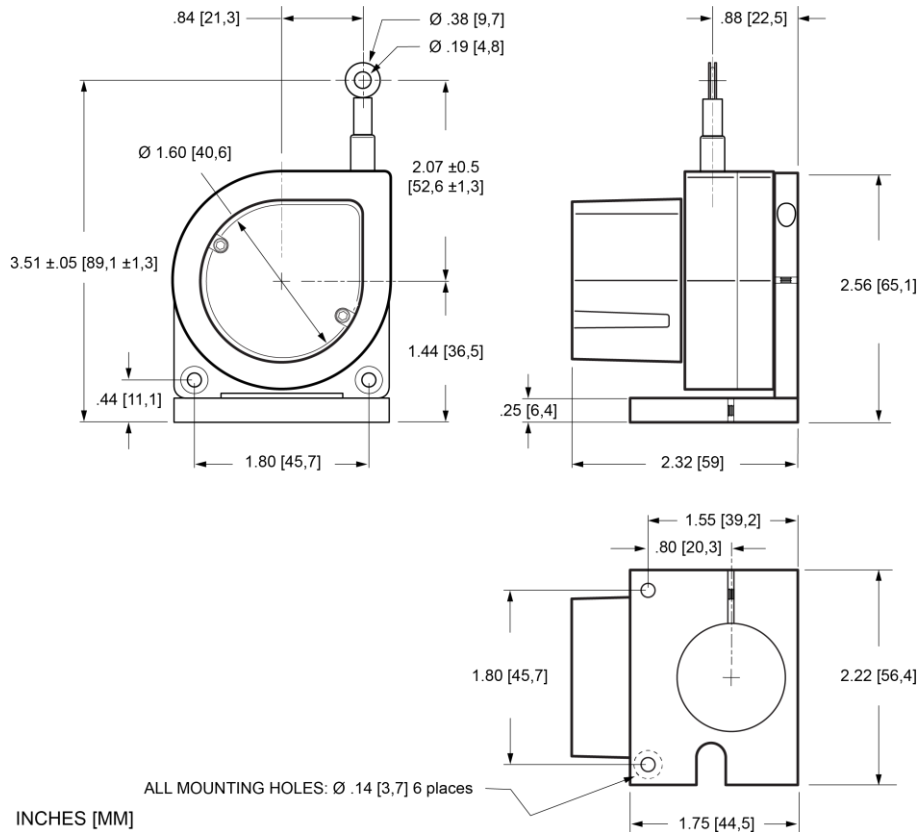
#### Environmental

<b>Operating Temperature</b>	-65° to 255° F ( -55° to 125°C)
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Outline Drawing (0-3 to 0-30 inch ranges)



Outline Drawing (0-50 inch range)



Ordering Information

Model Number:

**MT2A** -           -      - **10K** -       
*order code:*      **R**      **A**      **B**      **C**

Sample Model Number:

**MT2A - 9E - 33 - 10K - M1A**

- R** range: 9 inches
- A** measuring cable termination: eyelet
- B** measuring cable tension: 33 oz. (±6 oz.)
- C** electrical connection: end-mounted connector w/ aluminum sensor cover

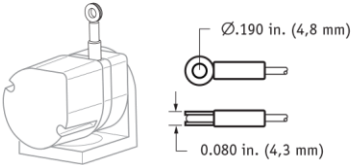
Full Stroke Range:

<b>R</b> <i>order code:</i>	<b>3</b>	<b>9</b>	<b>15</b>	<b>30</b>	<b>50</b>
full stroke range, min:	3 inches	9 inches	15 inches	30 inches	50 inches
potentiometer cycle-life:	$2.5 \times 10^6$	$8.3 \times 10^5$	$5.0 \times 10^5$	$2.5 \times 10^5$	$2.5 \times 10^5$
accuracy (% of full stroke):	1.1 %	.25%	.20%	.15%	.15%

Measuring Cable Termination:

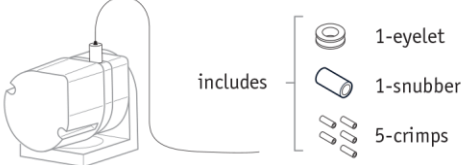
**A** *order code:*      **E**      **L**

Eyelet      Leader Cable (24 in. long)



Ø.190 in. (4,8 mm)

0.080 in. (4,3 mm)






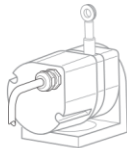
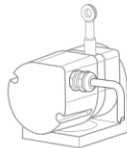

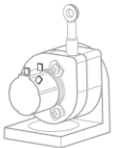
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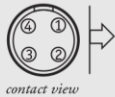
- 1-eyelet
- 1-snubber
- 5-crimps

Measuring Cable Tension:

<b>B</b> <i>order code:</i>	<b>9</b>	<b>14</b>	<b>33</b>
3, 9, 15, 30-in. range options:	9 (±2) oz.	14 (±4) oz.	33 (±6) oz.
max. cable acceleration:	99 g	136 g	136 g
<b>B</b> <i>order code:</i>	<b>9</b>	<b>22</b>	
50-in. range options:	9 (±2) oz.	22 (±6) oz.	
max. cable acceleration:	46 g	68 g	

**Electrical Connection/ Sensor Cover:**

<b>Ⓒ</b> <i>order code:</i>	<b>M1</b>	<b>M1A</b>	<b>M2</b>	<b>M2A</b>	<b>M3</b>	<b>M3A</b>		
sensor cover:	polycarbonate	aluminum	polycarbonate	aluminum	polycarbonate	aluminum		
electrical connection:		end-mount connector*		side-mount connector*		top-mount connector*		
<b>Ⓒ</b> <i>order code:</i>	<b>C1</b>	<b>C1A</b>	<b>C2</b>	<b>C2A</b>	<b>C3</b>	<b>C3A</b>	<b>S</b>	
sensor cover:	polycarbonate	aluminum	polycarbonate	aluminum	polycarbonate	aluminum	none**	
electrical connection:		end-mount, instrumentation cable (15-ft. long, 24 ga., shielded)		side-mount, instrumentation cable (15-ft. long, 24 ga., shielded)		top-mount, instrumentation cable (15-ft. long, 24 ga., shielded)		solder terminals

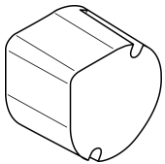
	<b>4-pin mating plug</b> Lemo FGG.OB.304.CLAD52	<table border="1"> <tr> <th>pin#</th> <th>signal</th> </tr> <tr> <td>1</td> <td>+in</td> </tr> <tr> <td>2</td> <td>common</td> </tr> <tr> <td>3</td> <td>+out</td> </tr> </table>	pin#	signal	1	+in	2	common	3	+out	<table border="1"> <tr> <th>color</th> <th>signal</th> </tr> <tr> <td>Red</td> <td>+in</td> </tr> <tr> <td>Black</td> <td>common</td> </tr> <tr> <td>Green</td> <td>+out</td> </tr> </table>	color	signal	Red	+in	Black	common	Green	+out	<table border="1"> <tr> <th>terminal</th> <th>signal</th> </tr> <tr> <td>CW</td> <td>+in</td> </tr> <tr> <td>CCW</td> <td>common</td> </tr> <tr> <td>S</td> <td>+out</td> </tr> </table>	terminal	signal	CW	+in	CCW	common	S	+out
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terminal	signal																											
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CCW	common																											
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\*mating plug included \*\*blank cover available, see **Accessories** on next page

**Accessories**



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



Additional blank sensor covers can be ordered separately. This cover comes without electrical wiring access holes so customer can drill to their requirements. Includes screws and gasket.

Part Number	Description
9604197-0000	Aluminum sensor cover
9603958-0000	Polycarbonate sensor cover