

# MT3A

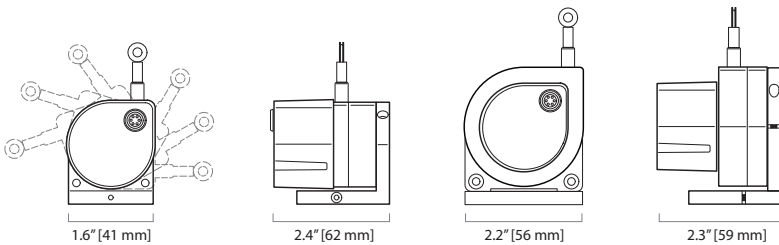
## Test Applications • Voltage Divider

Compact String Pot • Flight/Crash Test Applications

Dual Axis 360° Mounting Bracket

3, 9, 15, 30 and 50-inch Stroke Range Options

Wet Environments • Aluminum Enclosure



### GENERAL

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

### ELECTRICAL

Input Resistance	10K ohms (± 10%)
Power Rating, Watts	2.0 at 158°F (70° C), derated to 0 @ 255°F (125°C)
Recommended Maximum Input Voltage	30V (AC or DC)
Electrical Stroke	94% ±4% of input voltage

### MECHANICAL

Measuring Cable Tension Options	9, 14 and 33 oz.
Maximum Measuring Cable Acceleration	90 g

### ENVIRONMENTAL

Enclosure	NEMA 4 / IP67
Operating Temperature	-40° to 250° F ( -40° to 120°C)



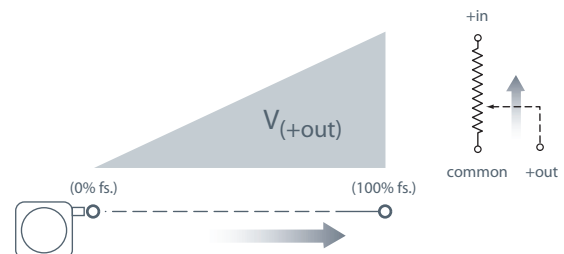
30-inch range model shown with aluminum cover

The MT3A is the solution for high-acceleration test applications in potentially wet environments. Just like the MT2A, the MT3A comes in 5 different full-stroke ranges, has a high-tension heavy-duty measuring cable designed for the demands of flight and automotive crash tests and comes with an easy to use 2-axis 360° rotation mounting bracket for installation in hard to fit areas.

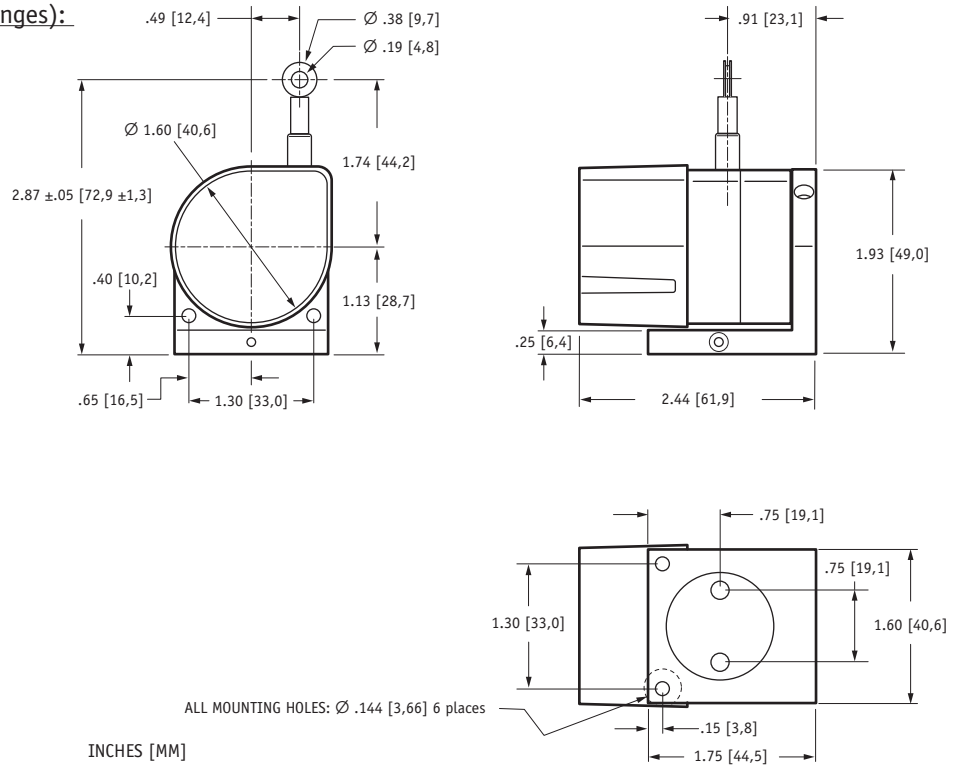
For extreme high impact applications, the MT3A is now available with a rugged all aluminum sensor cover!



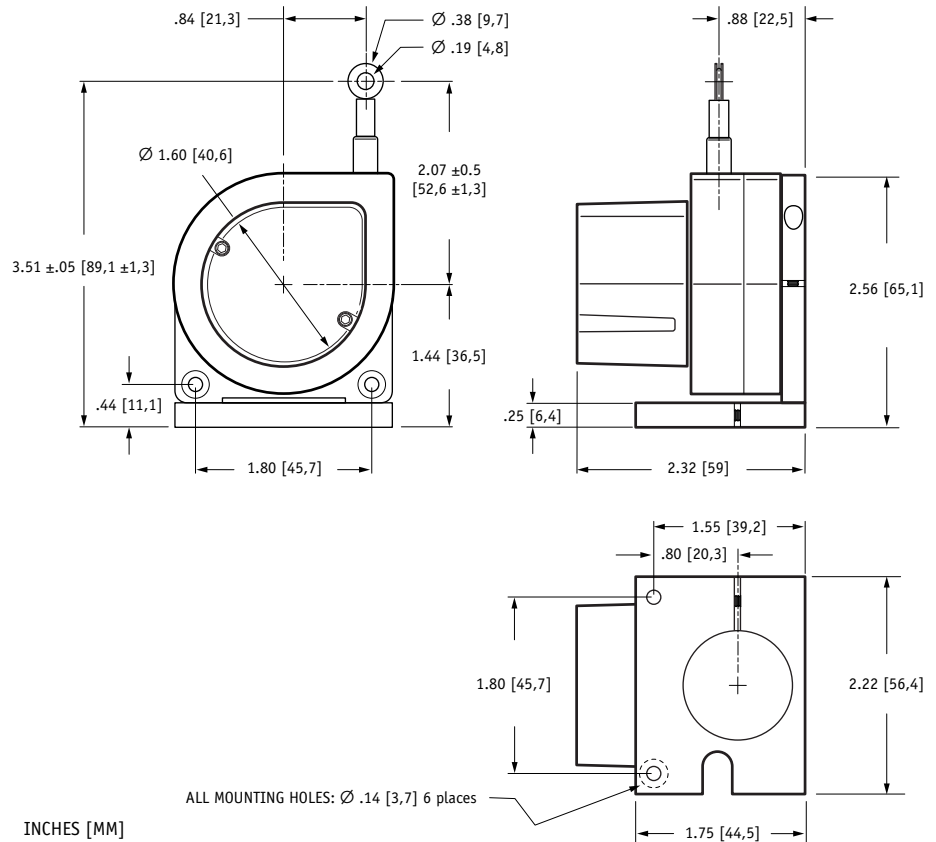
### Output Signal



Outline Drawing (0-3 to 0-30-inch ranges):



Outline Drawing (0-50-inch range):



Ordering Information:

Model Number:

**MT3A** -           -      - **10K** -       
order code:      R      A      B      C

Sample Model Number:

**MT3A - 9E - 33 - 10K - C1A**

**R** range: 9 inches  
**A** measuring cable termination: eyelet  
**B** measuring cable tension: 33 oz. (±6 oz.)  
**C** electrical connection: 15-ft cable w/end-mounted strain relief/aluminum cover

Full Stroke Range:

<b>R</b> order code:	<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:

<b>A</b> order code:	<b>E</b>	<b>L</b>
	Eyelet	Leader Cable (24 in. long)

Measuring Cable Tension:

<b>B</b> order code:	<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> order code:	<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>C</b> order code:	<b>C1</b>	<b>C1A</b>	<b>C4</b>	<b>C4A</b>	<b>C2</b>	<b>C2A</b>	<b>C5</b>	<b>C5A</b>
sensor cover:	polycarbonate	aluminum	polycarbonate	aluminum	polycarbonate	aluminum	polycarbonate	aluminum
electrical cable length:	15 ft (4.5 m)		30 ft (9 m)		15 ft (4.5 m)		30 ft (9 m)	
	end-mount strain relief				side-mount strain relief			
<b>C</b> order code:	<b>C3</b>	<b>C3A</b>	<b>C6</b>	<b>C6A</b>	<b>BC</b>	<b>BCA</b>		
sensor cover:	polycarbonate	aluminum	polycarbonate	aluminum	polycarbonate	aluminum		
electrical cable length:	15 ft (4.5 m)		30 ft (9 m)		n/a			
	top-mount strain relief				blank cover*			
<b>Signal Connection Color Code</b>			color	signal				
			Red	+in				
			Black	common				
			Green	+out				
			24 gauge, shielded					
					* <b>blank cover</b> option is for customers who want to provide their own connector or strain relief. This cover comes without electrical wiring access holes so customer can drill to their requirements.			

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