

MT3A

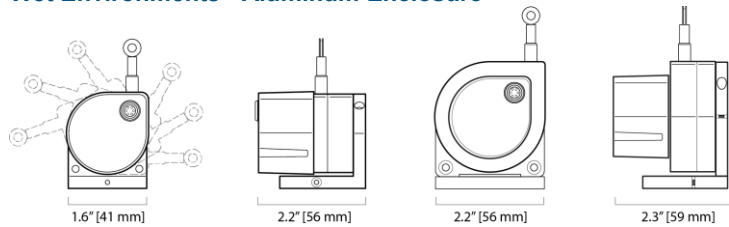
Cable Actuated Sensor Test Applications • Voltage Divider

Compact String Pot • Flight/Crash Test Applications

Dual Axis 360° Mounting Bracket

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

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

Environmental

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

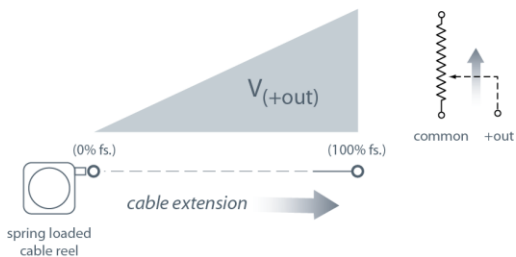


30-inch range model shown with aluminum cover

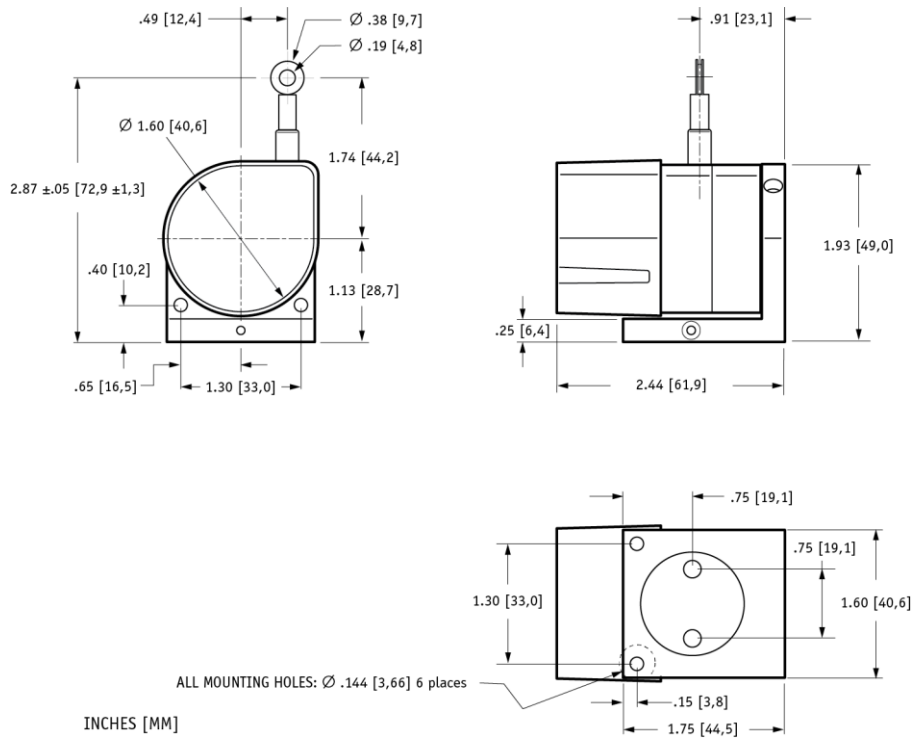
The MT3A is the solution for high-acceleration test applications in potentially wet environments. Just like the MT2A, the MT3A comes in 5 different full-stroke ranges, has a high-tension heavy-duty measuring cable designed for the demands of flight and automotive crash tests and comes with an easy to 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!

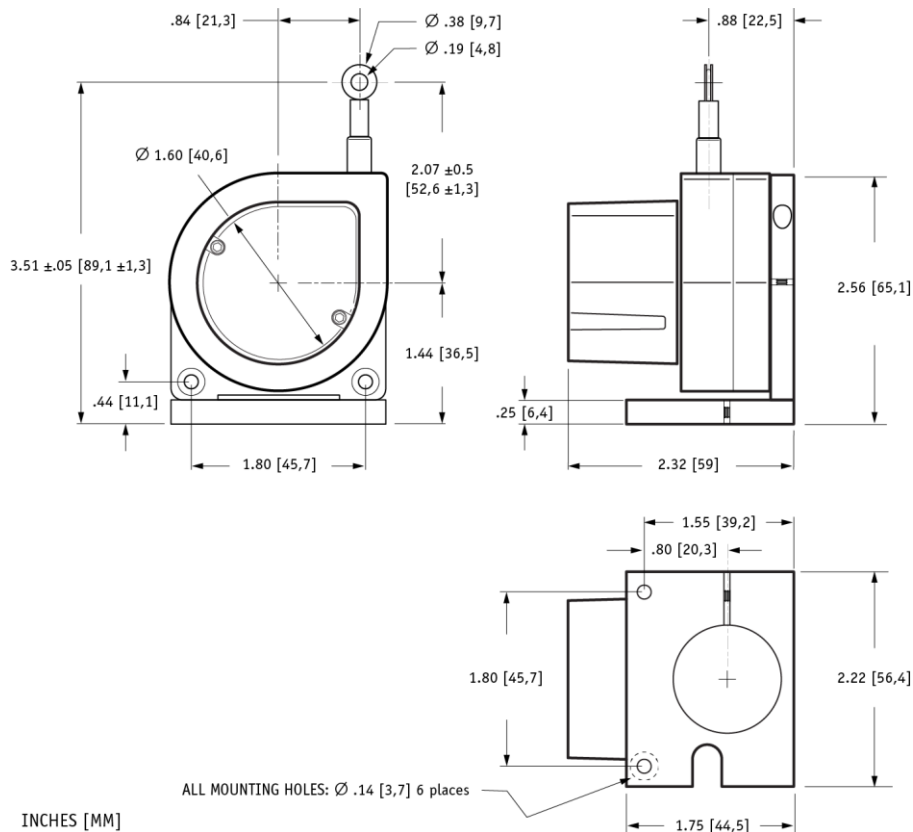
Output Signal



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



Outline Drawing (0-50-inch range)



Ordering Information

Model Number:

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

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.)
G electrical connection:	15-ft cable w/end-mounted strain relief/aluminum cover

Full Stroke Range:

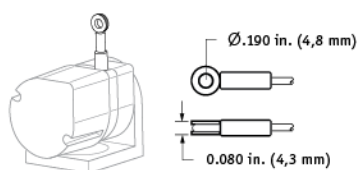
R <i>order code:</i>	3	9	15	30	50
full stroke range, min:	3 inches	9 inches	15 inches	30 inches	50 inches
potentiometer cycle-life:	2.5×10^6	8.3×10^5	5.0×10^5	2.5×10^5	2.5×10^5
accuracy (% of full stroke):	1.1 %	.25%	.20%	.15%	.15%

Measuring Cable Termination:

A *order code:*

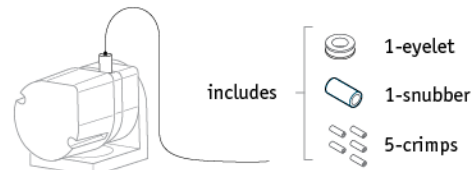
E

Eyelet



L

Leader Cable (24 in. long)



Measuring Cable Tension:

B *order code:*

9

14

33

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 *order code:*

9

22

50-in. range options:

9 (±2) oz.




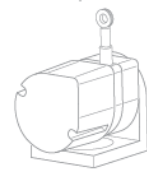

22 (±6) oz.

max. cable acceleration:

46 g

68 g

Electrical Connection/ Sensor Cover:

G <i>order code:</i>	C1	C1A	C4	C4A	C2	C2A	C5	C5A								
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 											
G <i>order code:</i>	C3	C3A	C6	C6A	BC	BCA										
sensor cover:	polycarbonate	aluminum	polycarbonate	aluminum	polycarbonate	aluminum										
electrical cable length:	15 ft (4.5 m)		30 ft (9 m)		n/a		n/a									
top-mount strain relief					blank cover* 											
Signal Connection Color Code	 24 gauge, shielded				<table><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
color	signal															
Red	+in															
Black	common															
Green	+out															
					<i>* blank cover 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.</i>											

NORTH AMERICA

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