

Cable-Extension Position Transducer

Precision Potentiometric Output

Ranges: 0-3, 0-9, 0-15, 0-30 inches

Test Applications • Wet Environments



MT3A



Specification Summary:

GENERAL

Full Stroke Ranges 0-3, 0-9, 0-15, 0-30 inches, min., *see ordering information*
 Output Signal voltage divider (potentiometer)
 Accuracy ± 1.1 to 0.25% full stroke, *see ordering information*
 Repeatability $\pm 0.02\%$ full stroke
 Resolution essentially infinite
 Measuring Cable $\varnothing.019$ -in. nylon-coated stainless steel
 Enclosure Material anodized aluminum
 Sensor Cover polycarbonate
 Sensor conductive plastic-hybrid potentiometer
 Weight 0.5 lb. max.

ELECTRICAL

Input Resistance 10K ohms ($\pm 10\%$)
 Power Rating, Watts 2.0 at 70° C (derated to 0 @ 125°C)
 Recommended Maximum Input Voltage 30V (AC or DC)
 Output Signal Change Over Measurement Range 94% $\pm 4\%$ of input voltage

MECHANICAL

Measuring Cable Tension Options *see ordering information*
 Maximum Measuring Cable Acceleration *see ordering information*

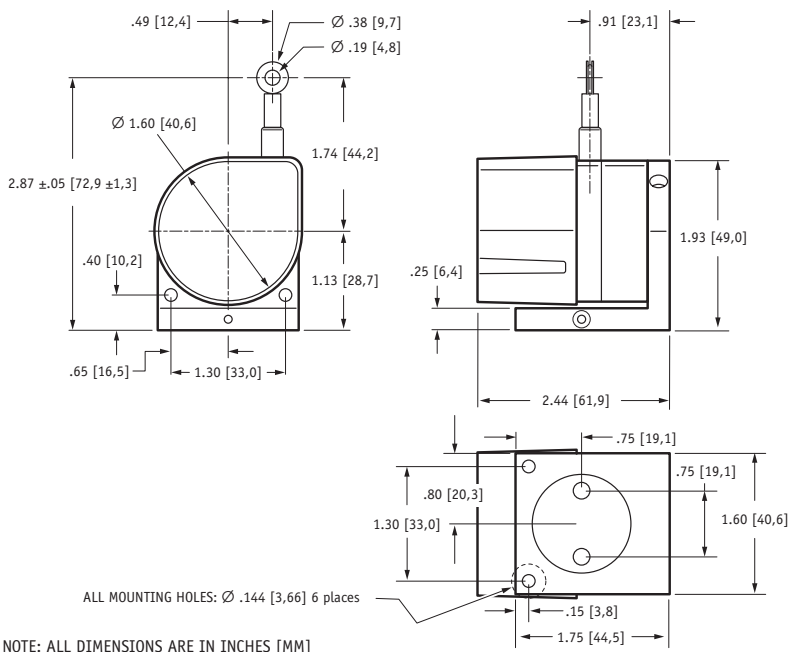
ENVIRONMENTAL

Enclosure NEMA 4 / IP67
 Operating Temperature -40° to 250°F (-40° to 125°C)

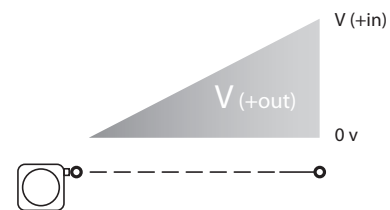
The MT3A is the solution for high-acceleration test applications in potentially wet environments. Just like the MT2A, the MT3A comes in 4 different full-stroke ranges, has a high-tension heavy-duty measuring cable designed for the demands of flight and automotive crash tests and comes with an easy to 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!

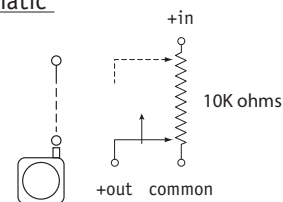
Outline Drawing



Output Signal



Schematic



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:

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

Measuring Cable Termination:

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

Measuring Cable Tension:

B <i>order code:</i>	9	14	33
tension:	9 (±2) oz.	14 (±4) oz.	33 (±6) oz.
max. cable acceleration:	17 G's	50 G's	90 G's

Electrical Connection/Sensor Cover:

C <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			
C <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			color	signal				
			Red	+in				
			Black	common				
			Green	+out				
			24 gauge, shielded					

* **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.

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