

MT3A

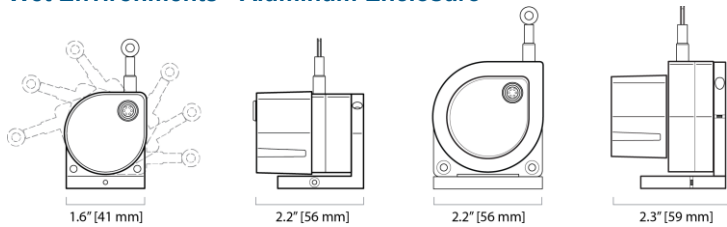
Cable Actuated Sensor Test Applications • Voltage Divider

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 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) |

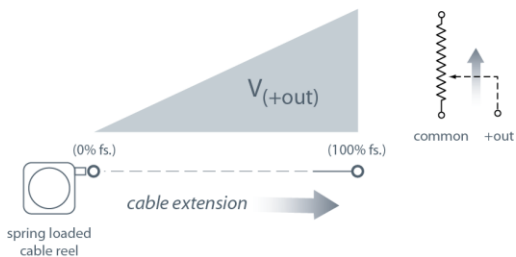


30-inch range model shown with aluminum cover

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!

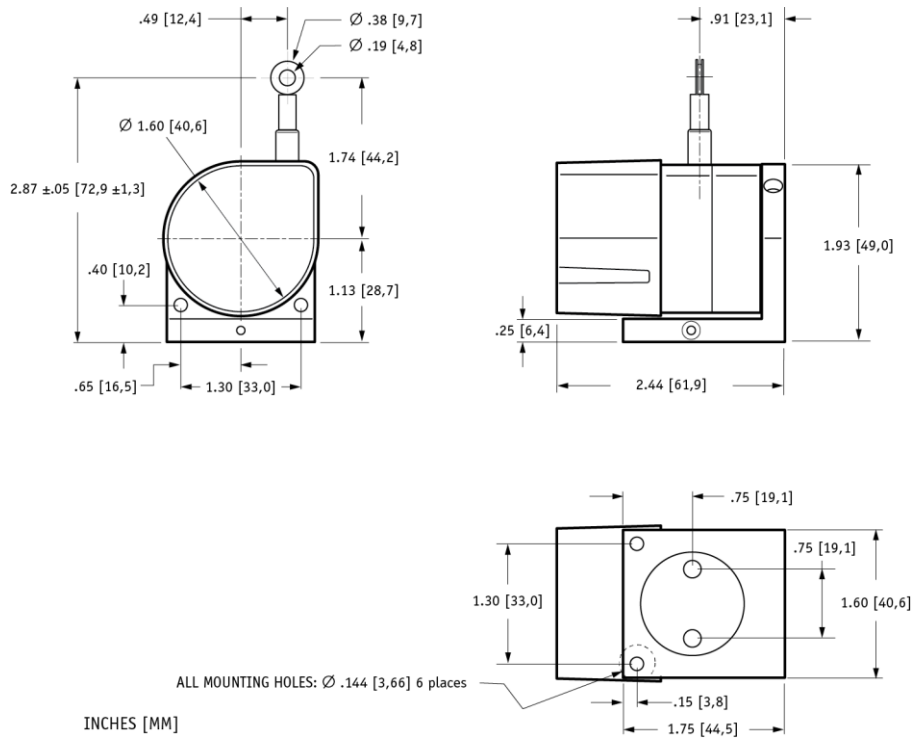
Output Signal



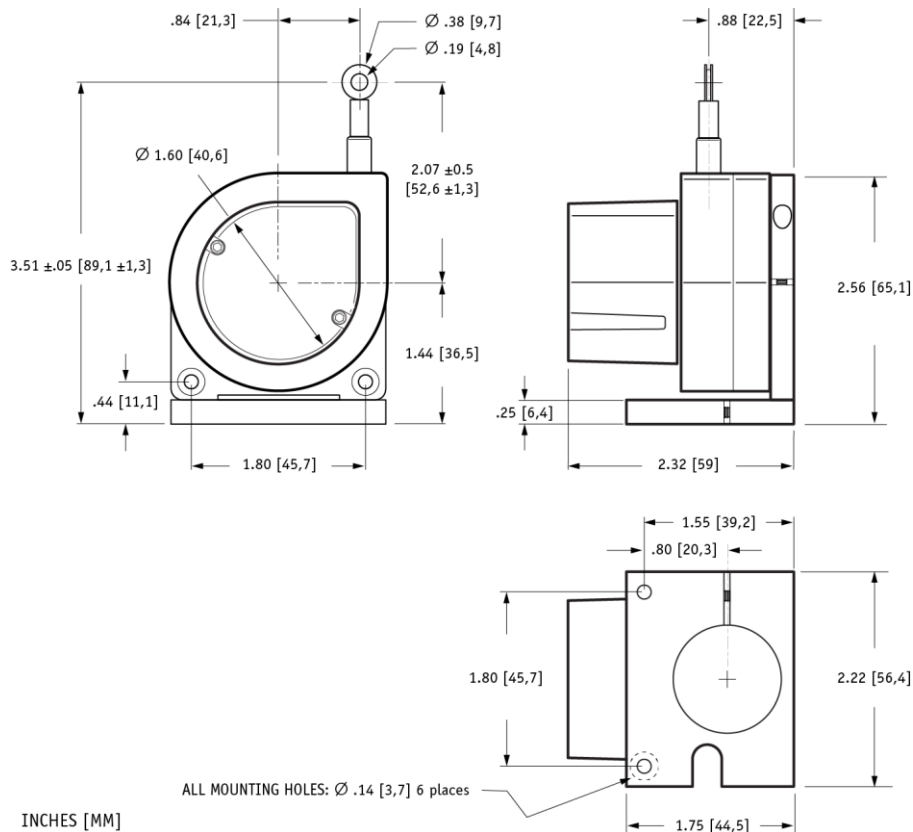
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Test Applications • Voltage Divider

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



Outline Drawing (0-50-inch range)



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Test Applications • Voltage Divider

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:

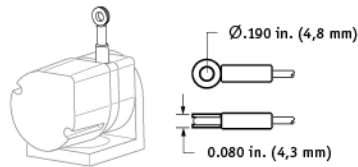
| R <i>order code:</i> | 3 | 9 | 15 | 30 | 50 |
|------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| full stroke range, min: | 3 inches | 9 inches | 15 inches | 30 inches | 50 inches |
| potentiometer cycle-life: | 2.5×10^6 | 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

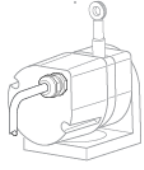
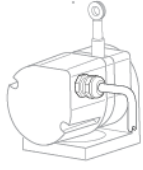


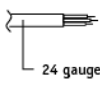
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| | | |
|--------------------------|------------|-------------|
| 50-in. range options: | 9 (±2) oz. | 22 (±6) oz. |
| max. cable acceleration: | 46 g | 68 g |

MT3A

Test Applications • Voltage Divider

Electrical Connection/ Sensor Cover:

| Order Code | 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 |  | | | |  | | | |
| Order Code | 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 |  | | | |  | | | |
| 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. | | | |

NORTH AMERICA

Measurement Specialties, Inc.,
 a TE Connectivity company
 20630 Plummer Street
 Chatsworth, CA 91311
 Tel +1 800 423 5483
 Tel +1 818 701 2750
 Fax +1 818 701 2799
 info@celesco.com

TE.com/sensorsolutions

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