

MT3A

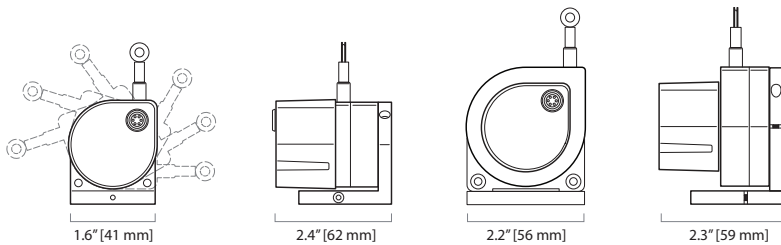
Test Applications • Voltage Divider

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) |

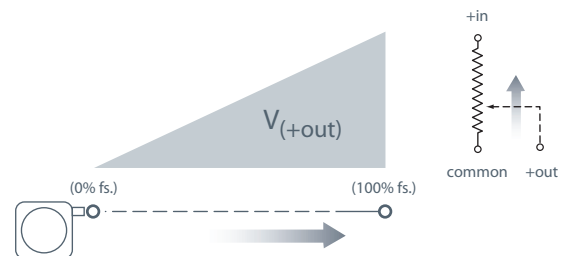


30-inch range model shown with aluminum cover

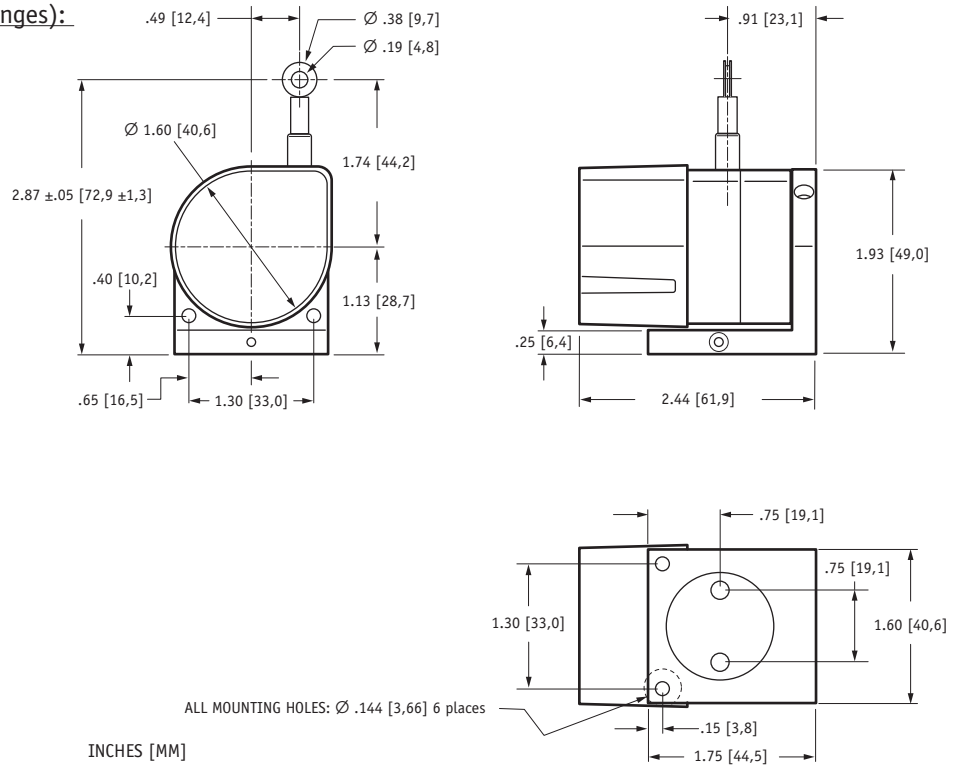
The MT3A is the solution for high-acceleration test applications in potentially wet environments. Just like the MT2A, the MT3A comes in 5 different full-stroke ranges, has a high-tension heavy-duty measuring cable designed for the demands of flight and automotive crash tests and comes with an easy to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

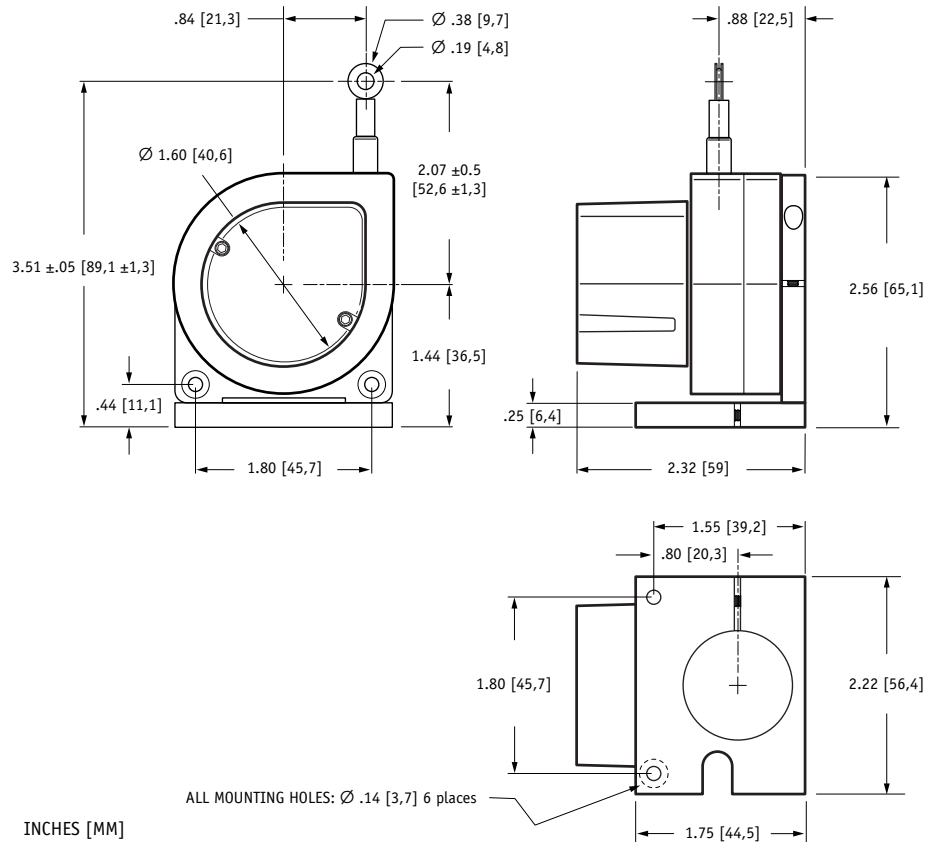
Output Signal



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:

| R order code: | 3 | 9 | 15 | 30 | 50 |
|------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| full stroke range, min: | 3 inches | 9 inches | 15 inches | 30 inches | 50 inches |
| potentiometer cycle-life: | 2.5 x 10 ⁶ | 8.3 x 10 ⁵ | 5.0 x 10 ⁵ | 2.5 x 10 ⁵ | 2.5 x 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) |
| | | |

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:

| C 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 | | | | side-mount strain relief | | | |
| C 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 | | | | 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.

version: 10.0 last updated: November 16, 2015