



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



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







2.3" [59 mm]

General

Full Stroke Range Options 0-3, 0-9, 0-15, 0-30, 0-50 inches, min.

| Output Signal | voltage divider (potentiometer) |
|--------------------|--|
| Accuracy | \pm 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 | 90 g |
| Cable Acceleration | |

Environmental

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

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





Outline Drawing (0-50-inch range)



Ordering Information

Model Number:



Sample Model Number:

MT3A - 9E - 33 - 10K - C1A

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

Full Stroke Range:

| Order code: Order | 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:



Measuring Cable Tension:

| 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 | |
| 🚯 <u>order code:</u> | 9 | 22 | | |
| 50-in. range options: | 9 (±2) oz. | 22 (±6) oz. | | |
| max. cable acceleration: | 46 g | 68 g | | |

| G _order code: | C1 | C1A | C4 | C4A | C2 | C2A | C5 | C5A |
|-------------------------|-------------------|----------|-----------------------|----------|---------------|----------|--|----------|
| sensor cover: | polycarbonate | aluminum | polycarbonate | aluminum | polycarbonate | aluminum | polycarbonate | aluminum |
| lectrical cable length: | 15 ft (4 | .5 m) | 30 ft (9 | 9 m) | 15 ft (4 | .5 m) | 30 ft (9 |)m) |
| end-mount strain relief | | | | | | | | |
| • order code: | Сз | СЗА | C6 | C6A | вС | ; | BĊ | Α |
| sensor cover: | polycarbonate | aluminum | polycarbonate | aluminum | polycarb | onate | alumir | num |
| ectrical cable length: | 15 ft (4 | .5 m) | 30 ft (9 |) m) | n/a | I | n/a | |
| to | p-mount strain r | elief | | | blank co | ver* | | |
| | Signal Connection | • | _color sig Red +in | | | | ustomers who want to This cover comes w | |

└ 24 gauge, shielded

NORTH AMERICA

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