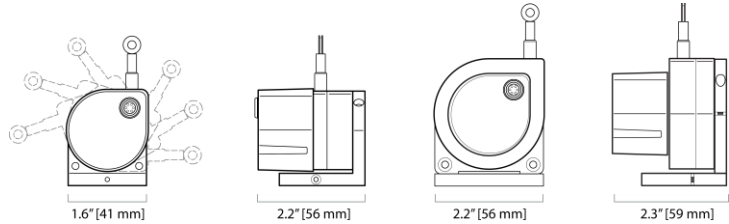


MT2A

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
Aluminum & Polycarbonate Enclosure • GAM Certification

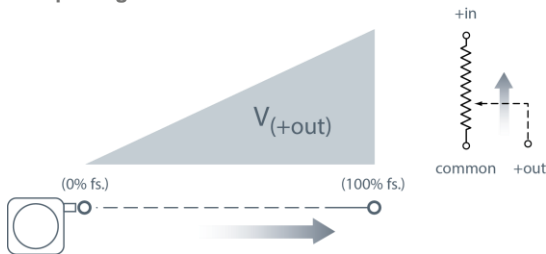


The MT2A is a member of our family of rugged, accurate miniature cable-extension position transducers designed specifically for test applications. One of the major benefits to this sensor is its 2-axis 360° rotating mounting bracket to allow for fast and simple installation in any direction.

The MT2A comes in 5 different measuring ranges: 0-3", 0-9", 0-15", 0-30", 0-50" and features a highly-tensioned heavy-duty measuring cable designed for the high-acceleration demands encountered in flight testing and automotive crash tests.

For extreme impact applications, a new rugged all aluminum sensor cover is now available!

Output Signal



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 |
| Mating Plug | LEMO FGG.OB.304.CLAD52 |

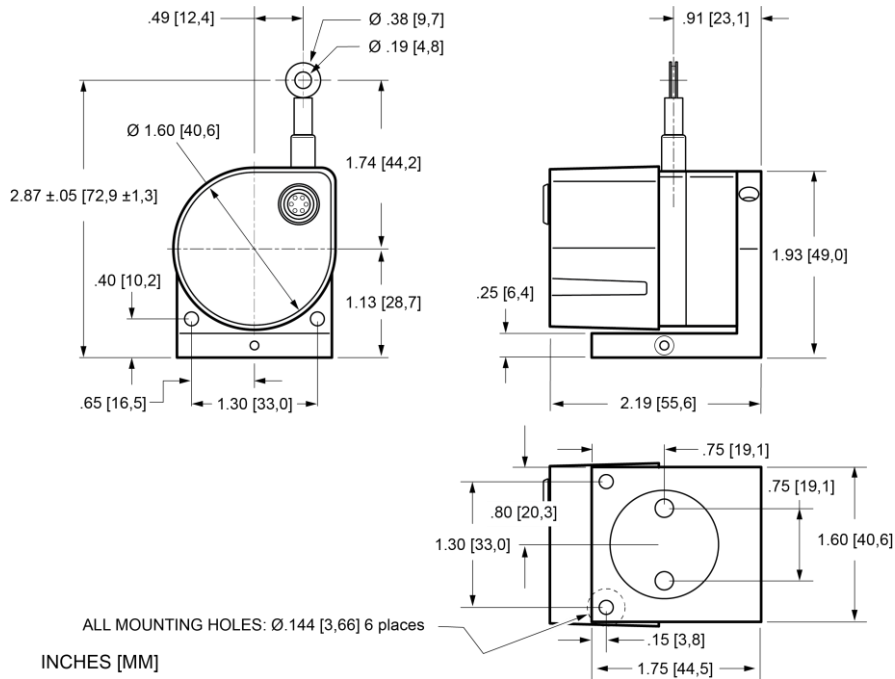
Mechanical

| | |
|---|--------------------------|
| Measuring Cable Tension Options | see ordering information |
| Maximum Measuring Cable Acceleration | 136 g |

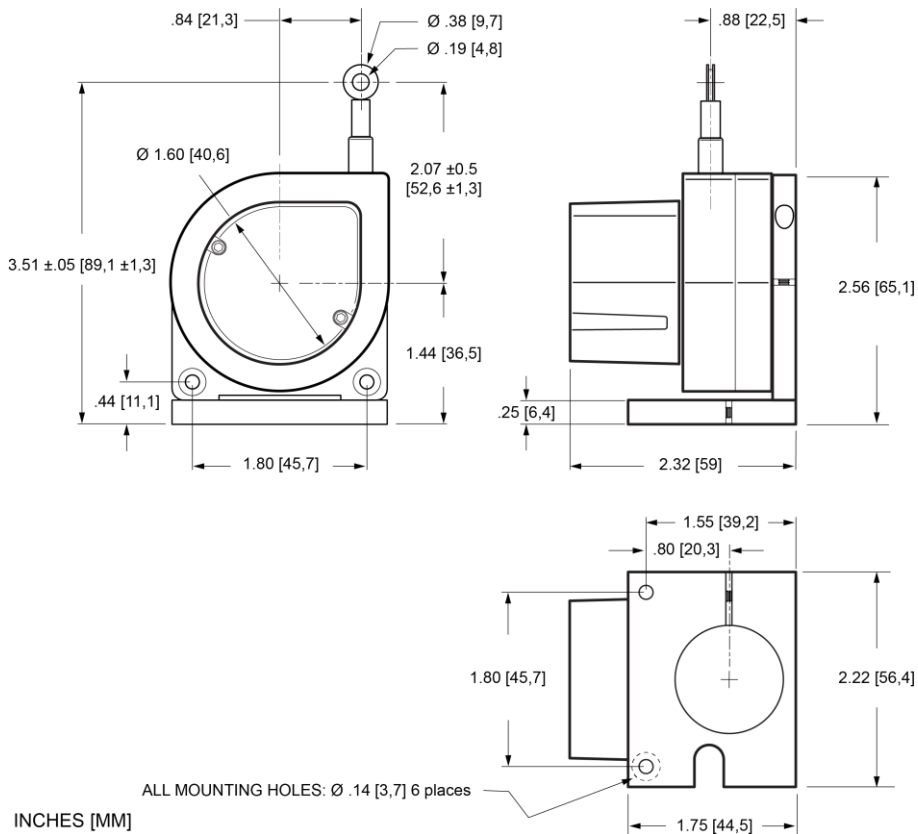
Environmental

| | |
|------------------------------|---------------------------------|
| Operating Temperature | -65° to 255° F (-55° to 125°C) |
|------------------------------|---------------------------------|

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



Outline Drawing (0-50 inch range)



Ordering Information

Model Number:

MT2A - - - **10K** -
order code: **R** **A** **B** **C**

Sample Model Number:

MT2A - 9E - 33 - 10K - M1A

- R** range: 9 inches
- A** measuring cable termination: eyelet
- B** measuring cable tension: 33 oz. (±6 oz.)
- C** electrical connection: end-mounted connector w/ aluminum sensor cover

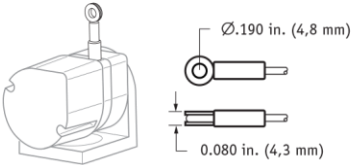
Full Stroke Range:

| 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:

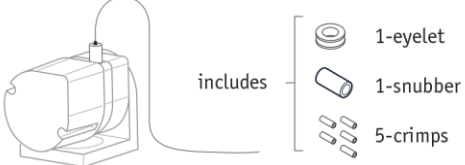
A *order code:* **E** **L**

Eyelet Leader Cable (24 in. long)



Ø.190 in. (4,8 mm)

0.080 in. (4,3 mm)






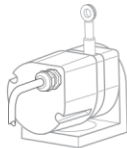
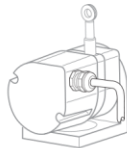

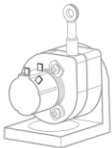
includes


- 1-eyelet
- 1-snobber
- 5-crimps

Measuring Cable Tension:

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

Electrical Connection/ Sensor Cover:

| | | | | | | | | | |
|----------|------------------------|---|---|---|--|---|---|---|------------------|
| ⓐ | order code: | M1 | M1A | M2 | M2A | M3 | M3A | | |
| | sensor cover: | polycarbonate | aluminum | polycarbonate | aluminum | polycarbonate | aluminum | | |
| | electrical connection: |  | end-mount connector* |  | side-mount connector* |  | top-mount connector* | | |
| ⓑ | order code: | C1 | C1A | C2 | C2A | C3 | C3A | S | |
| | sensor cover: | polycarbonate | aluminum | polycarbonate | aluminum | polycarbonate | aluminum | none** | |
| | electrical connection: |  | end-mount, instrumentation cable (15-ft. long, 24 ga., shielded) |  | side-mount, instrumentation cable (15-ft. long, 24 ga., shielded) |  | top-mount, instrumentation cable (15-ft. long, 24 ga., shielded) |  | solder terminals |

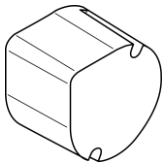
|  | 4-pin mating plug Lemo FGG.OB.304.CLAD52 | <table border="1"> <tr> <th>pin#</th> <th>signal</th> </tr> <tr> <td>1</td> <td>+in</td> </tr> <tr> <td>2</td> <td>common</td> </tr> <tr> <td>3</td> <td>+out</td> </tr> </table> | pin# | signal | 1 | +in | 2 | common | 3 | +out | <table border="1"> <tr> <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 | <table border="1"> <tr> <th>terminal</th> <th>signal</th> </tr> <tr> <td>CW</td> <td>+in</td> </tr> <tr> <td>CCW</td> <td>common</td> </tr> <tr> <td>S</td> <td>+out</td> </tr> </table> | terminal | signal | CW | +in | CCW | common | S | +out |
|--|--|---|------|--------|---|-----|---|--------|---|------|--|-------|--------|-----|-----|-------|--------|-------|------|--|----------|--------|----|-----|-----|--------|---|------|
| pin# | signal | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | +in | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | common | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | +out | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| color | signal | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Red | +in | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Black | common | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Green | +out | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| terminal | signal | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CW | +in | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCW | common | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S | +out | | | | | | | | | | | | | | | | | | | | | | | | | | | |

*mating plug included **blank cover available, see **Accessories** on next page

Accessories



| Part Number | Description |
|--------------|---|
| 9603957-0015 | 15 ft. long cordset. Includes mating connector with 15 ft., 24 gauge, shielded multiconductor cable |



Additional blank sensor covers can be ordered separately. This cover comes without electrical wiring access holes so customer can drill to their requirements. Includes screws and gasket.

| Part Number | Description |
|--------------|----------------------------|
| 9604197-0000 | Aluminum sensor cover |
| 9603958-0000 | Polycarbonate sensor cover |

GAM EG 13 Certification (0-3 to 0-30 inch ranges only)**QUALIFICATION LEVEL FOR CLIMATIC AND THERMAL ENVIRONMENT**

External Overpressure, operating (GAM EG 13 Fasc.21)

5 cycles: 1...4.5 Bar in 3 min., 4.5 Bar for 12 hours,
4.5...1 Bar in 1 min.

1 cycle: 1...3.2 Bar in 7.5 min., 3.2 Bar for 2 min.,
3.2...8 Bar in 5 sec., 8 Bar for 2 hours,
8...1 Bar in 2 Bar/sec.

1 cycle: 1...4.5 Bar in 20 msec. 4.5 Bar for 5 sec,
4.5...1 Bar in 20 msec.

Thermal Vacuum Transitory, operating (GAM EG 13 Fasc.10)
Room pressure and temperature (1 Bar A; 20°C ±2°C)
1...10-3 mBar in 100 seconds
Vacuum (10-3 mBar) for 10 min.

Climatic Cycles (GAM EG 13 Fasc.8)

Dry heat: 24 hours @ 70°C ±2°C Relative Humidity < 50%
Wet heat: 24 hours @ 70°C ±2°C Relative Humidity = 50%
Cold: 24 hours @ -10°C ±2°C Relative Humidity < 50%
Wet heat: 24 hours @ 70°C ±2°C Relative Humidity = 100%

Dry Heat (Relative Humidity <50%)

Room temperature to 70°C in 30 mins
70°C for 5 hours, non-operating
70°C for 5 hours, operating
70°C to room temperature in 20 minutes

QUALIFICATION LEVEL FOR MECHANICAL ENVIRONMENT

Random Vibrations (GAM EG 13 Fasc.42 mod. Op1)
20...2000 Hz, 3 min. per axis, operating, 34 g.
20...2000 Hz, 20 sec. per axis, operating, 45 g.

Random Vibrations (GAM EG 13 Fasc.41 mod. Op3)
Compensated Levels, short duration
3...300 Hz @ .2 – .002 g²/ Hz.

Research Critical Frequency
Logarithmic Run, 1 octave / min., 1...2000 Hz.

Steady Acceleration, operating (GAM EG 13 Fas.45)
37 g, 3 min. per direction (2 directions per axis)

Sinusoidal Vibrations, operating (Gam EG 13 Fasc.41 mod. Op3)
Logarithmic run, 1 octave/min. on 3 axis
3...50 Hz. 9 hours per axis @0.6...1.25 g

Sinusoidal Vibrations, operating (Gam EG 13 Fasc.41 mod. Op3)
Logarithmic run, 1 octave/min. on 3 axis
5...2 KHz. 3 axis @12...25 g.

Average Shock (GAM EG 13 Fasc.43 Mode Op1)
1 shock, 1/2 sinusoidal, 100g. 6 msec. operating,
with longitudinal and back direction

Free Fall (GAM EG 13 Fasc.43 Mode Op4)
6 consecutive drops on wood table, height = 100mm

NORTH AMERICA

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MT2A 12/01/2015



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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