

Cable-Extension Position Transducer

Precision Potentiometric Output

Ranges: 0-3 and 0-5 inches

Compact Size • Crash Test • Flight Test • OEM



MTA

Specification Summary:

GENERAL

Full Stroke Ranges 0-3 and 0-5 inches, min.
 Output Signal voltage divider (potentiometer)
 Accuracy $\pm 0.4\%$ full stroke
 Repeatability $\pm 0.02\%$ full stroke
 Resolution essentially infinite
 Potentiometer Cycle Life 50 million cycles*
 Measuring Cable 0.024-in. dia. nylon-coated stainless steel
 Enclosure Material anodized aluminum
 Sensor conductive plastic potentiometer
 Weight (maximum) 3-inch: 0.10 lbs., 5-inch: 0.26 lbs.

ELECTRICAL

Input Resistance 5K ohms ($\pm 10\%$)
 Power Rating, Watts 1.0 at 40° C (derated to 0 @ 110°C)
 Recommended Maximum Input Voltage 30V (AC or DC)
 Temperature coefficient of voltage dividing ratio < 2 ppm/°C
 Temperature coefficient of resistance
 -50...+75°C ± 200 ppm/°C
 +75...+100°C ± 300 ppm/°C
 Output Signal Change Over Measurement Range 94% $\pm 4\%$ of input voltage

MECHANICAL

Measuring Cable Tension *see ordering information*

ENVIRONMENTAL

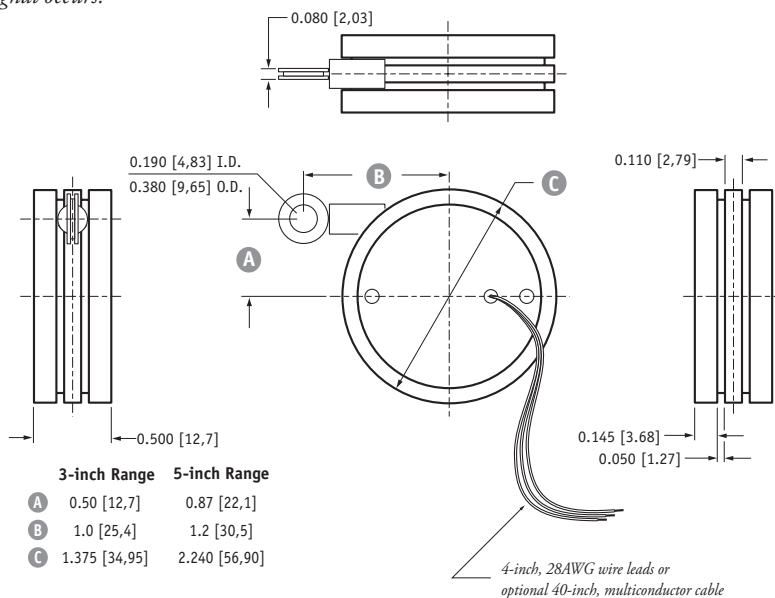
Enclosure Design NEMA 12, IP55
 Operating Temperature -67° to 212°F (-55° to 100°C)

**note: potentiometer cycle life is defined as the minimum number of times the measuring cable can be fully extended and retracted before any measureable degradation of the output signal occurs.*

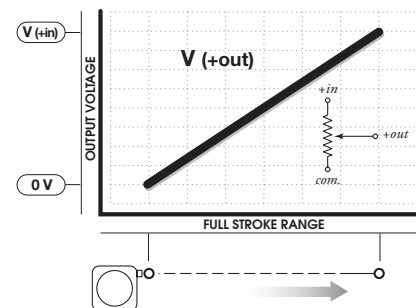


The MTA is part of Celesco's new miniature line of cable-extension position transducers that is perfect for short-ranged testing and control applications where space is at a premium.

This transducer uses a high-cycle conductive plastic potentiometer to provide a precision voltage divider feedback signal for measurement ranges of 3 or 5 inches full stroke. With an accuracy of $\pm 0.4\%$ and a repeatability of $\pm 0.02\%$, the MTA conveniently mounts using servo-clips for easy rotational adjustment.



Output Signal



Ordering Information:

Model Number:

MTA - - **5K** -
order code: **R** **A** **B** **G**

Sample Model Number:

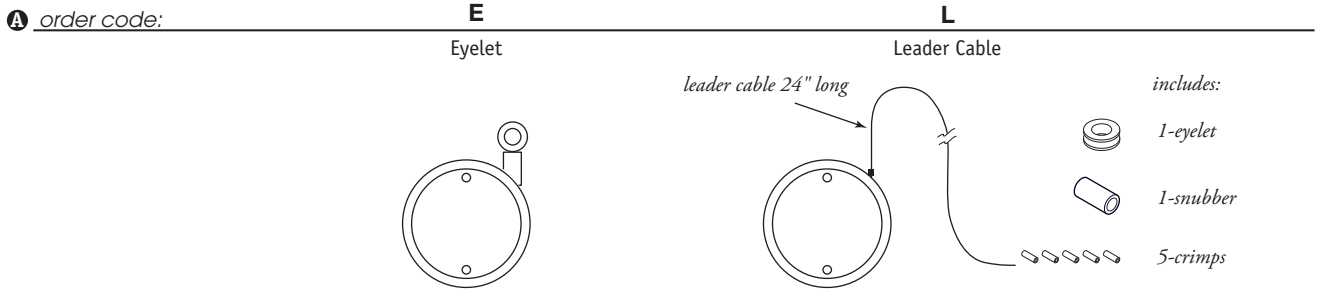
MTA - 3AE - 5KC - MB

- R** range/cable tension: 3 inches/4 oz.
- A** measuring cable termination: eyelet
- B** electrical connection: instrumentation cable, 40-in.
- G** mounting bracket: yes

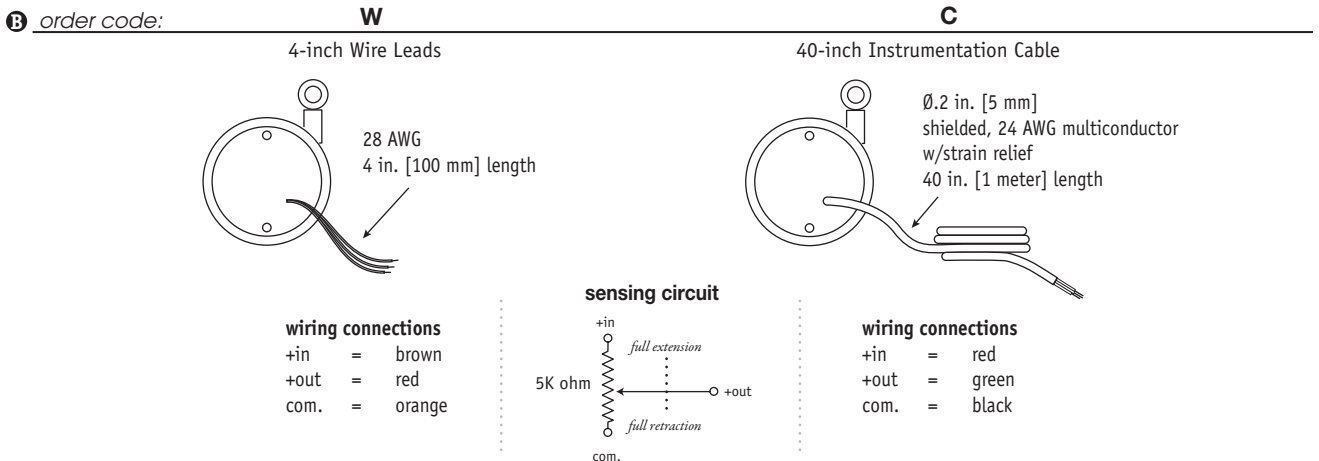
Full Stroke Range:

R <i>order code:</i>	3	3A	5	5A
full stroke range, min:	3 inches		5 inches	
std. cable tension (±25%):	2.0 oz.	4.0 oz.	1.2 oz.	2.4 oz.
max. acceleration:	30 G's	60 G's	3 G's	6 G's

Measuring Cable Termination:



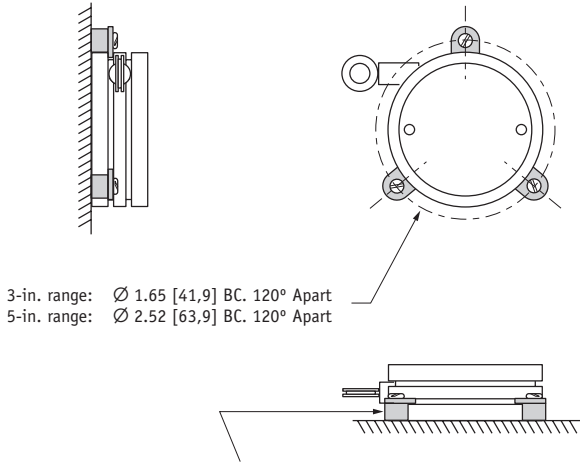
Electrical Connection:



Ordering Information (cont.)

Mounting Options:

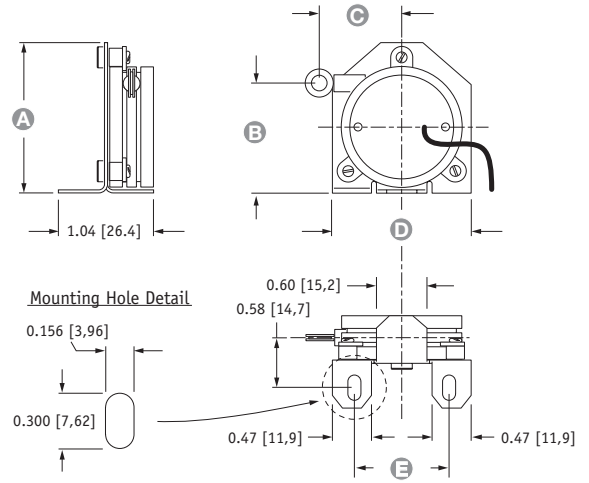
① *order code:* blank
 Servo Clip Mount Option
 includes 3) servo-clips and 3) 4-40 screws



use 4-40 or M3 screws and servo-clips to mount sensor.

MB

Mounting Bracket Option



	3-inch Range	5-inch Range
A	1.8 [46]	3.0 [75]
B	1.3 [33]	2.3 [59]
C	1.0 [25]	1.2 [31]
D	1.7 [42]	2.4 [62]
E	1.13 [28,6]	1.87 [47,6]

INCHES[MM]

version: 3.0 last updated: December 10, 2007