Precision Potentiometric Output
Ranges: 0-3 and 0-5 inches
Compact Size • Crash Test • Flight Test • OEM

MTA

CE

Specification Summary:

GENERAL

Full Stroke Ranges	0-3 and 0-5 inches, min.
Output Signal	voltage divider (potentiometer)
Accuracy	±0.15 % full stroke
Repeatability	±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 (±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% ±4% of input voltage

MECHANICAL

Measuring Cable Tension	*see ordering information*

ENVIRONMENTAL

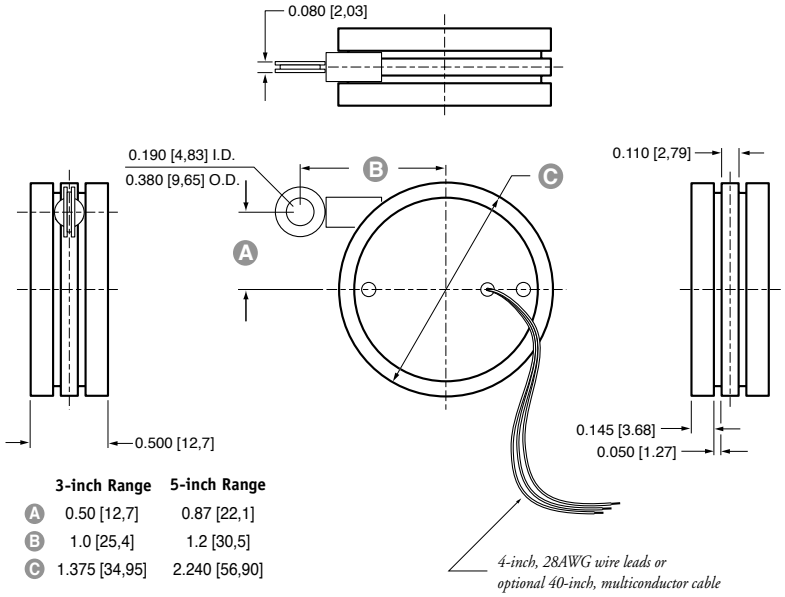
Enclosure Design	NEMA 12, IP65
Operating Temperature	-67° to 212°F (-55° to 100°C)

**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-cyle 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 ±0.15% and a repeatability of ±0.02%, the MTA conveniently mounts using servo-clips for easy rotational adjustment.

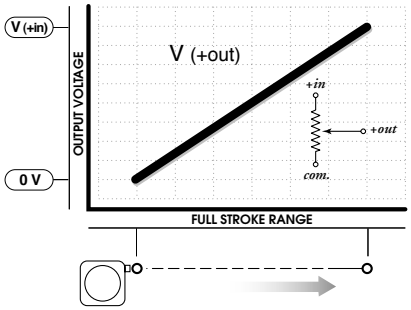
Outline Drawing



	3-inch Range	5-inch Range
A	0.50 [12,7]	0.87 [22,1]
B	1.0 [25,4]	1.2 [30,5]
C	1.375 [34,95]	2.240 [56,90]

NOTE: ALL DIMENSIONS ARE IN INCHES [MM]

Output Signal



Ordering Information:

Model Number:

MTA - ___ ___ - 5K ___ - ___

order code: Ⓡ Ⓐ Ⓑ Ⓒ

Sample Model Number:

MTA - 3AE - 5KC - MB

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

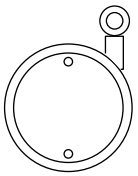
Full Stroke Range:

Ⓡ order code:	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

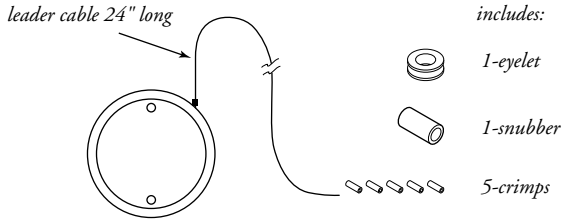
Measuring Cable Termination:

Ⓐ order code:

E — Eyelet



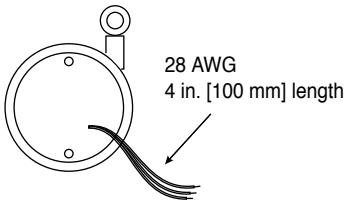
L — Leader Cable



Electrical Connection:

Ⓑ order code:

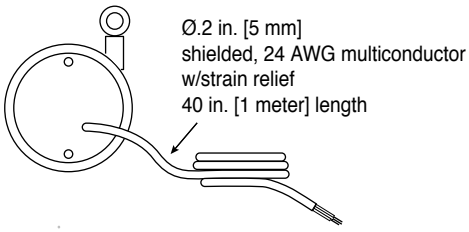
W — 4-inch Wire Leads



wiring connections

+in	=	brown
+out	=	red
com.	=	orange

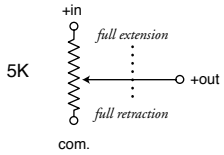
C — 40-inch Instrumentation Cable



wiring connections

+in	=	red
+out	=	green
com.	=	black

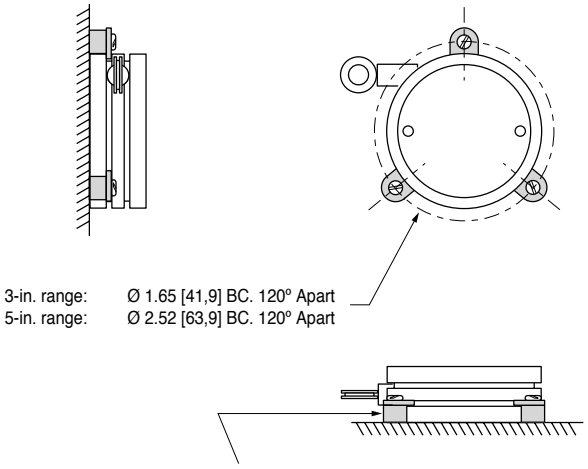
sensing circuit



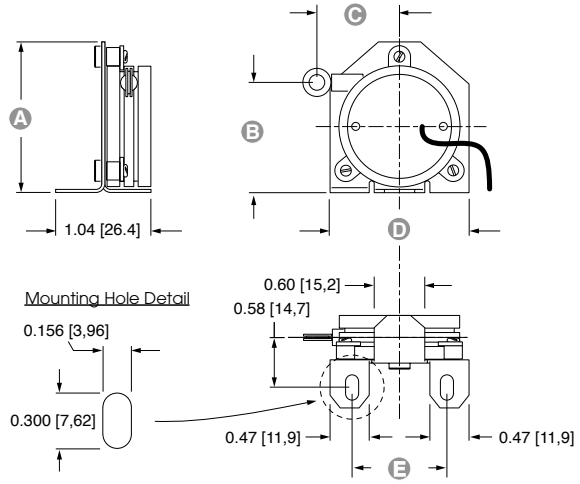
Ordering Information (cont.)

Mounting Options:

Ⓒ order code:	blank	MB
	Servo Clips (no bracket)	Mounting Bracket



use 4-40 or M3 screws with servo clips (provided) to mount sensor.



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

INCHES[MM]

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