MTA

Voltage Divider Output

Compact String Pot • Absolute Linear Position

0-3, 0-5 inch Stroke Range Options

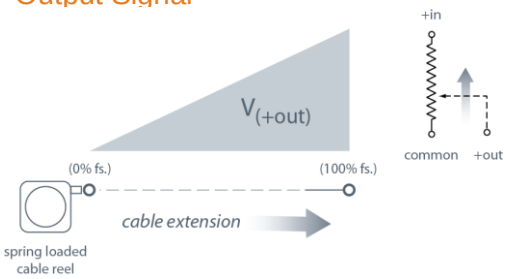
High Cycle Applications

Crash Testing • Flight Testing • OEM

The MTA is part of Celesco's 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 ±0.4% and a repeatability of ±0.02%, the MTA conveniently mounts using servo-clips for easy rotational adjustment.

Output Signal



General

Full Stroke Range	0-3 and 0-5 inches, min.
Output Signal	voltage divider (potentiometer)
Accuracy	±0.4 % 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
Measuring Cable Tension	see ordering information
Enclosure Material	anodized aluminum
Sensor	conductive plastic potentiometer
Weight (maximum)	**3-inch: 0.10 lbs., 5-inch: 0.26 lbs.**

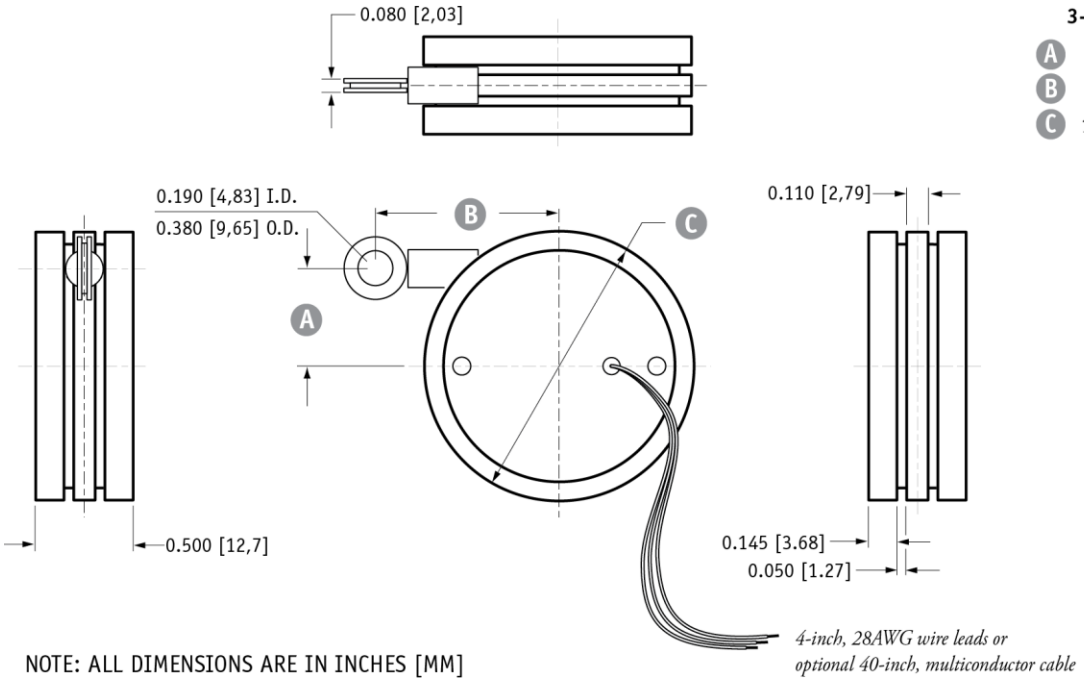
Electrical

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
Temperature coefficient of resistance, +75...+100°C	±300 ppm/°C
Maximum Output Signal	94% ±4% of input voltage

Environmental

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

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]

Ordering Information

Model Number:

MTA - ___ ___ - 5K ___ - ___

order code: ® Ⓐ Ⓑ Ⓒ

Sample Model Number:

MTA - 3AE - 5KC - MB

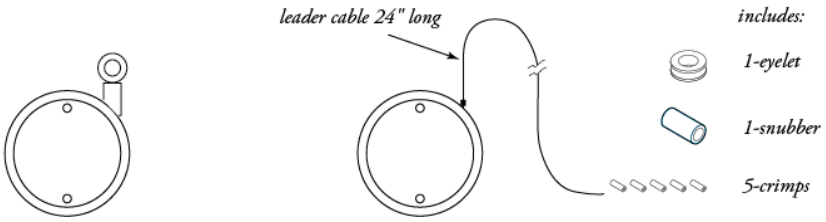
®	range/cable tension:	3 inches/4 oz.
Ⓐ	measuring cable termination:	eyelet
Ⓑ	electrical connection:	instrumentation cable, 40-in.
Ⓒ	mounting bracket:	yes

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

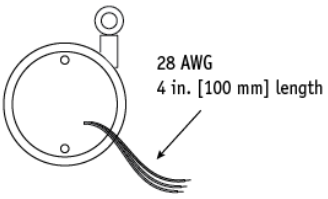
Measuring Cable Termination:

Ⓐ order code: **E** Eyelet | **L** Leader Cable



Electrical Connection:

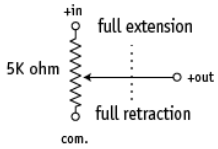
Ⓑ *order code:* **W** — 4-inch Wire Leads



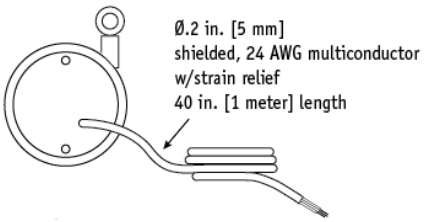
wiring connections

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

sensing circuit



Ⓑ *order code:* **C** — 40-inch Instrumentation Cable

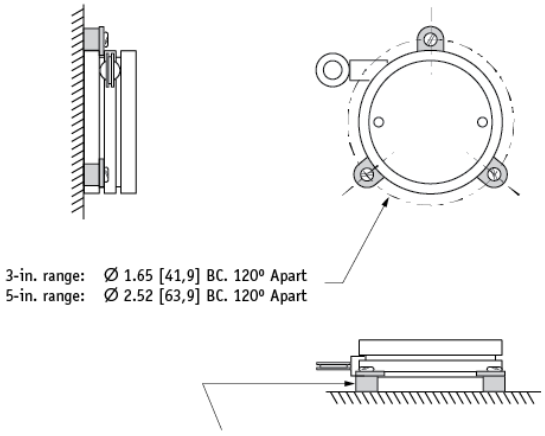


wiring connections

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

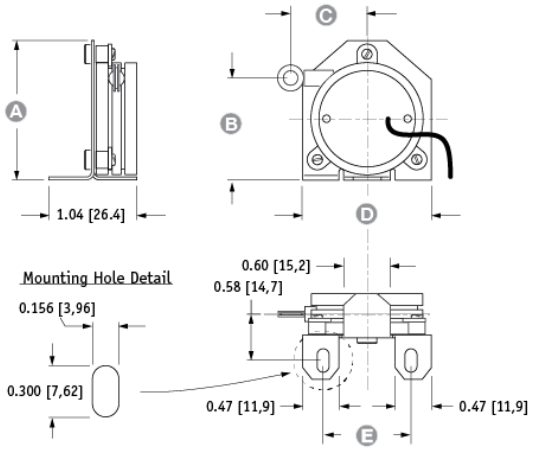
Mounting Options

Ⓒ *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]