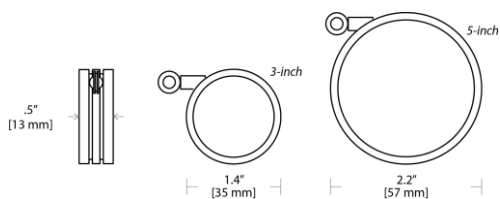




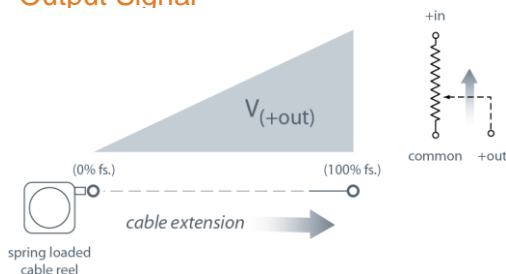
CE



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-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



# 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**

## General

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

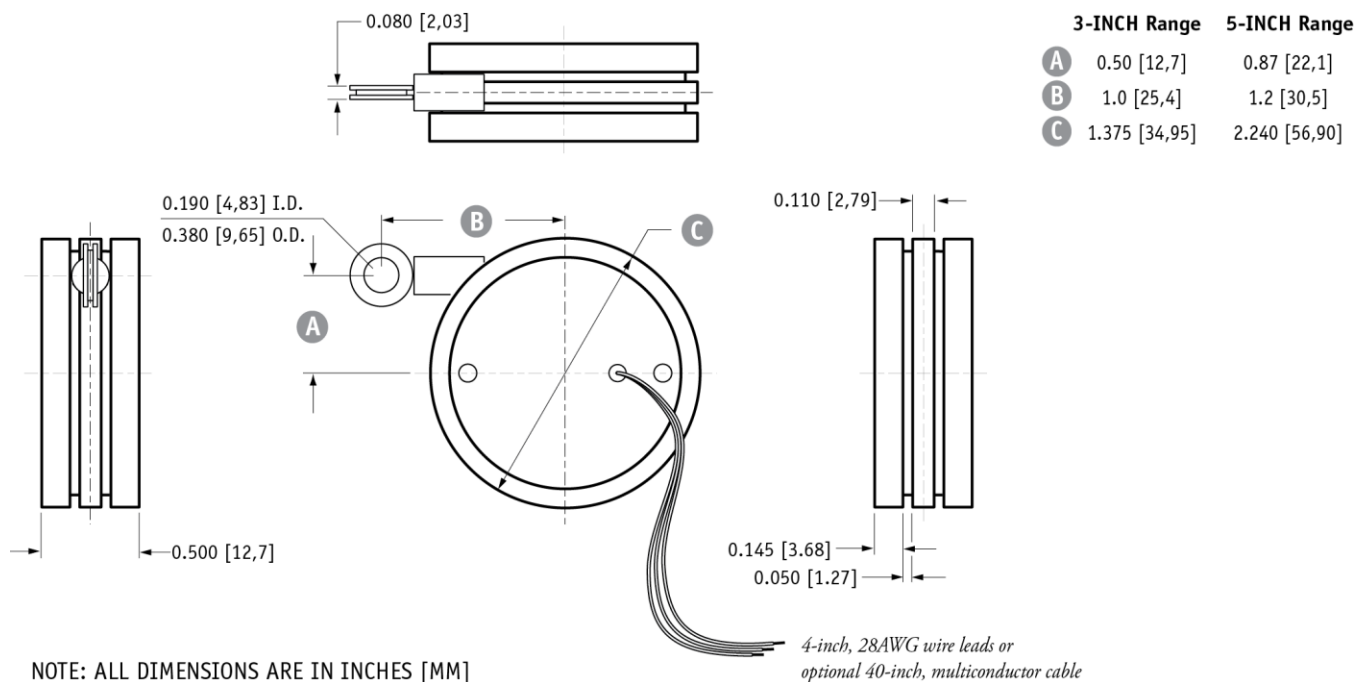
## Electrical

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

## Environmental

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

## Outline Drawing



## Ordering Information

## Model Number:

**MTA** - **5K** -

order code: **R** **A** **B** **C**

## Sample Model Number:

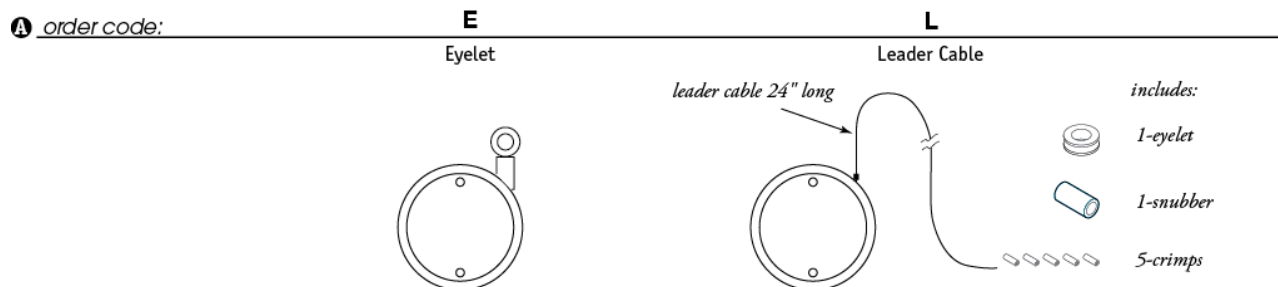
**MTA - 3AE - 5KC - MB**

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

## Full Stroke Range:

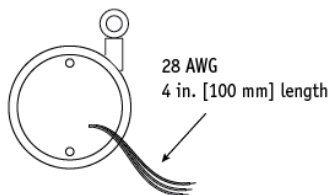
<b>R</b> order code:	3	3A	5	5A
full stroke range, min:	3 inches		5 inches	
std. cable tension ( $\pm 25\%$ ):	2.0 oz.	4.0 oz.	1.2 oz.	2.4 oz.
max. acceleration:	30 G's	60 G's	3 G's	6 G's

## Measuring Cable Termination:



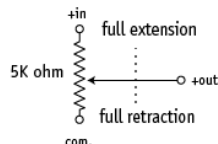
**Electrical Connection:****B** order code:**W**

4-inch Wire Leads

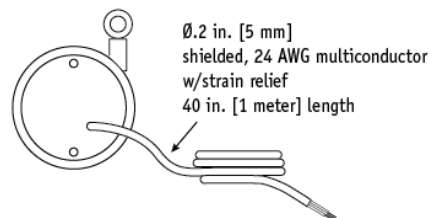


wiring connections  
 +in = brown  
 +out = red  
 com. = orange

sensing circuit

**C**

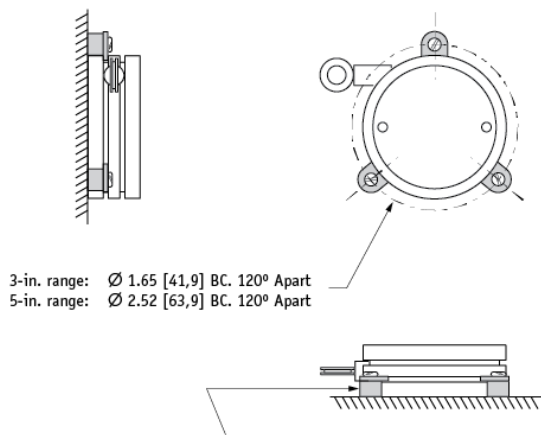
40-inch Instrumentation Cable



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

**Mounting Options****D** order code:**blank**

Servo Clip Mount Option  
 includes 3) servo-clips and 3) 4-40 screws

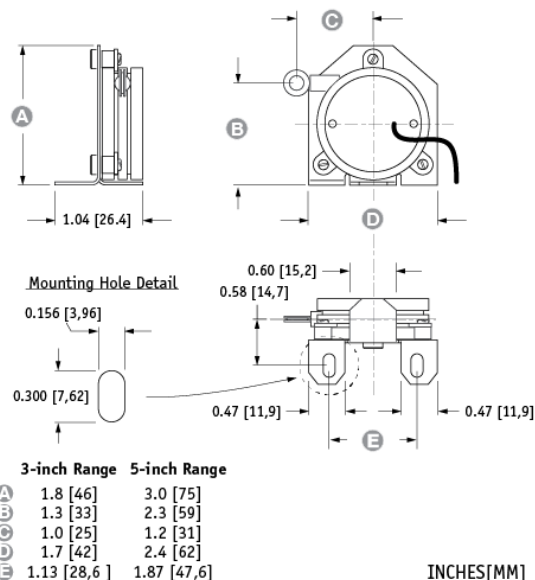


3-in. range: Ø 1.65 [41,9] BC. 120° Apart  
 5-in. range: Ø 2.52 [63,9] BC. 120° Apart

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]

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MTA 12/01/2015