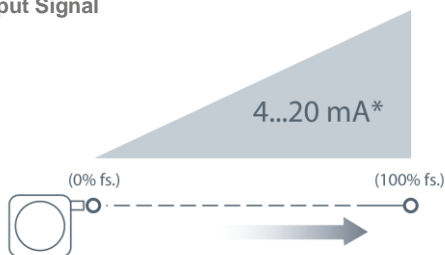


The PT1MA adds 4...20 mA position feedback signal to Celesco's compact line of cable-extension transducers. The PT1MA is available with full stroke ranges from as little as 2 inches on up to 50 inches with adjustable zero and span settings to precisely match the full scale output to your exact measurement range.

The PT1MA offers several options including forward and reverse 0...20 and 4...20 mA output signals, alternate measuring cable exits and a couple different electrical connection options.

#### Output Signal



\*Optional 3-wire, 0...20mA output signal available.

## PT1MA

### Cable Actuated Sensor Industrial Grade • 4...20mA • 0...20mA

**Absolute Linear Position to 50 inches (1270 mm)**

**Aluminum and Polycarbonate Enclosure**

**Compact Design**

**IP65 • NEMA 4 Protection**

#### General

<b>Full Stroke Range</b>	0-2 to 0-50 inches
<b>Output Signal</b>	4...20 mA (2-wire) and 0...20 mA (3-wire)
<b>Accuracy</b>	± 0.28% to ± 0.15% full stroke (see ordering information)
<b>Repeatability</b>	± 0.05% full stroke
<b>Resolution</b>	essentially infinite
<b>Measuring Cable</b>	.019-in. dia. nylon-coated stainless steel
<b>Enclosure</b>	glass-filled polycarbonate and black anodized aluminum
<b>Sensor</b>	plastic-hybrid precision potentiometer
<b>Potentiometer Cycle Life</b>	see ordering information
<b>Maximum Retraction</b>	see ordering information
<b>Acceleration</b>	
<b>Weight</b>	1 lb. max.

#### Electrical

<b>Input Voltage</b>	see ordering information
<b>Input Current</b>	20 mA max.
<b>Maximum Loop Resistance (Load)</b>	(loop supply voltage - 8)/0.020
<b>Circuit Protection</b>	38 mA max.
<b>Impedance</b>	100M ohms@100 VDC, min.
<b>Signal Adjust, Zero</b>	from factory set zero to 50% of full stroke range
<b>Signal Adjust, Span</b>	to 50% of factory set span
<b>Thermal Effects, Zero</b>	0.01% f.s./°F, max.
<b>Thermal Effects, Span</b>	0.01% f.s./°F, max.

#### Environmental

<b>Enclosure</b>	NEMA 4, IP 65
<b>Operating Temperature</b>	0° to 200°F (-17° to 90°C)
<b>Vibration</b>	up to 10 g to 2000 Hz maximum

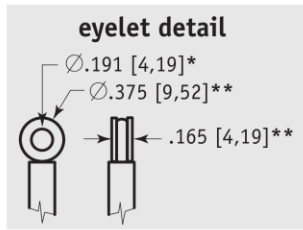
#### EMC COMPLIANCE PER DIRECTIVE 89/336/EEC

<b>Emission/Immunity</b>	EN50081-2/EN50082-2
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# PT1MA

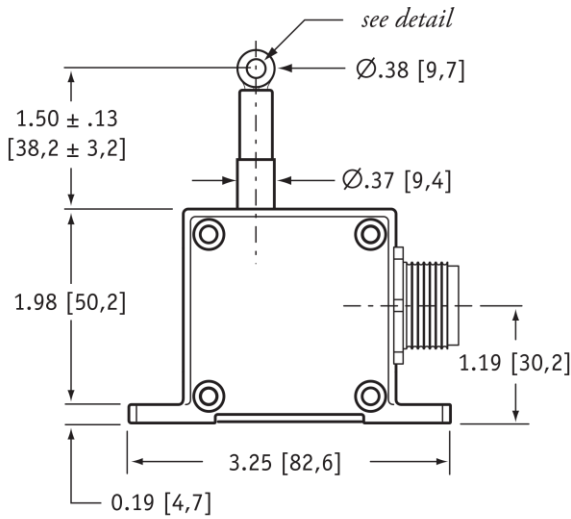
Industrial Grade • 4...20mA • 0...20mA

## Outline Drawing

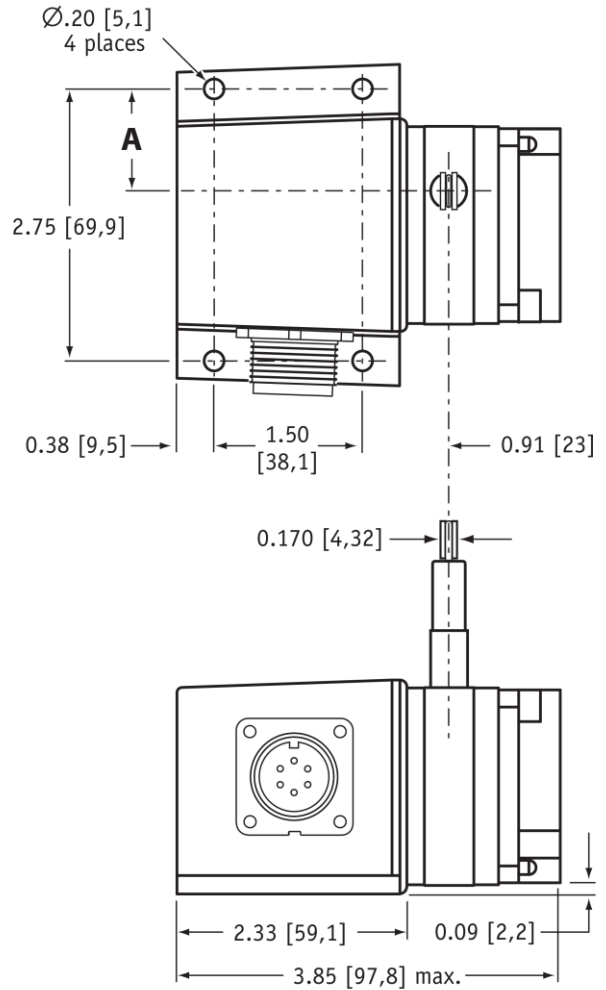


Range	A
2, 10	1.04 [26,4]
5, 25, 50	0.58 [14,7]
15, 30	0.82 [20,8]
20, 40	0.74 [18,8]

*inches [mm]*



DIMENSIONS ARE IN INCHES [MM]  
tolerances are 0.03 IN. [0.5 MM] unless otherwise noted.



\* tolerance = +.005 - .001 [+.13 -.03]  
\*\* tolerance = +.005 - .005 [+.13 -.13]

## Ordering Information

### Model Number:

**PT1MA** -      -      -      -      -       
order code:      **R**      **A**      **B**      **C**      **D**

### Sample Model Number:

**PT1MA - 30 - UP - 420E - MC4 - SG**

- R** range: 30 inches
- A** measuring cable exit: up
- B** output signal: 4...20mA
- C** electrical connection: 4-pin micro connector
- D** cable guide: spring-loaded guide

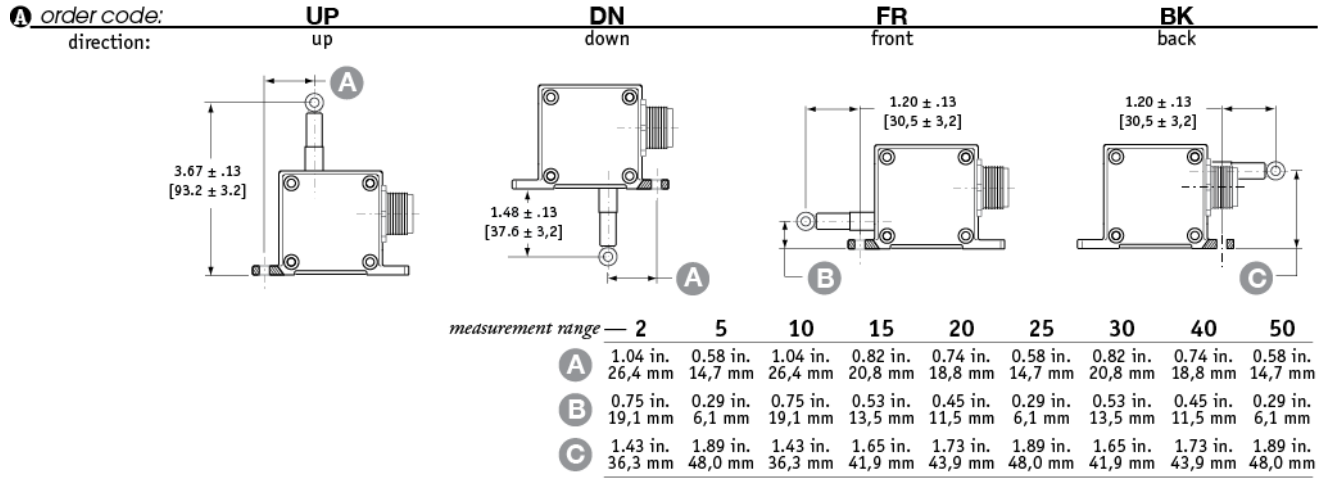
### Full Stroke Range:

<b>R</b> order code:	2	5	10	15	20	25	30	40	50
full stroke range, min:	2 in.	5 in.	10 in.	15 in.	20 in.	25 in.	30 in.	40 in.	50 in.
accuracy (% of f.s.):	0.28%			0.18%			0.15%		
potentiometer cycle life:	2,500,000 cycles			500,000 cycles			250,000 cycles		
cable tension (20%):	12 oz.	5 oz.	12 oz.	9 oz.	6 oz.	5 oz.	9 oz.	6 oz.	5 oz.
max. cable acceleration:	11 g	3 g	11 g	5 g	4 g	3 g	5 g	4 g	3 g

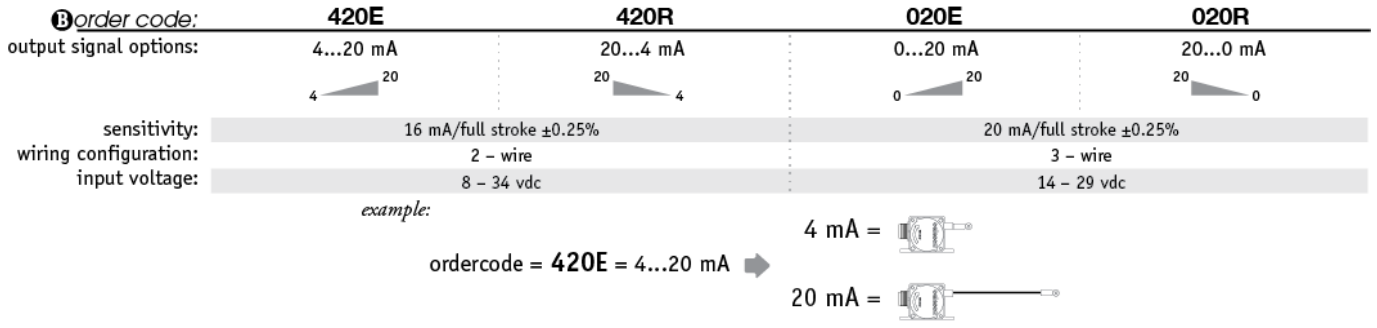
# PT1MA

Industrial Grade • 4...20mA • 0...20mA

## Cable Exit:



## Output Signal:



## Electrical Connection:

