

PT1E

Cable Actuated Sensor Industrial Grade • Incremental Encoder

Linear Position to 50 inches (1270 mm)
Aluminum and Polycarbonate Enclosure
Compact Design • Incremental Encoder Output Signal
IP65 • NEMA 4 Protection

General

| | |
|---------------------------|--------------------------------------------------------|
| Full Stroke Range | 0-2 to 0-50 inches |
| Output Signal | incremental encoder (quadrature) |
| Accuracy | ± 0.04% full stroke |
| Repeatability | ± 0.02% full stroke |
| Resolution Options | 25 to 1250 pulses per inch |
| Measuring Cable | .019-in. dia. nylon-coated stainless steel |
| Enclosure | glass-filled polycarbonate and black anodized aluminum |
| Sensor | optical encoder |
| Maximum Retraction | see ordering information |
| Acceleration | |
| Weight | 1 lb. max. |

Electrical

| | |
|----------------------|--------------------------|
| Input Voltage | see ordering information |
| Input Current | see ordering information |

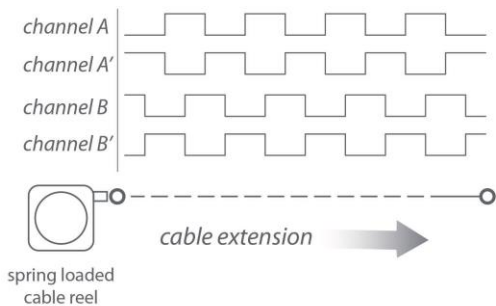
Environmental

| | |
|------------------------------|-------------------------------|
| Enclosure | NEMA 4, IP 65 |
| Operating Temperature | 0° to 160°F (-17° to 71°C) |
| Vibration | up to 10 g to 2000 Hz maximum |

The heart of the PT1E is an incremental optical encoder which delivers a quadrature formatted digital pulse train. This compact transducer is available with several resolution options for a wide variety of applications from high accuracy position feedback to slow velocity feedback requirements.

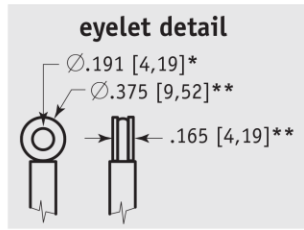
The PT1E has many options available including full stroke measurement ranges from 0-2 inches up to 0-50 inches, different output drivers and alternate measuring cable exits.

Output Signal

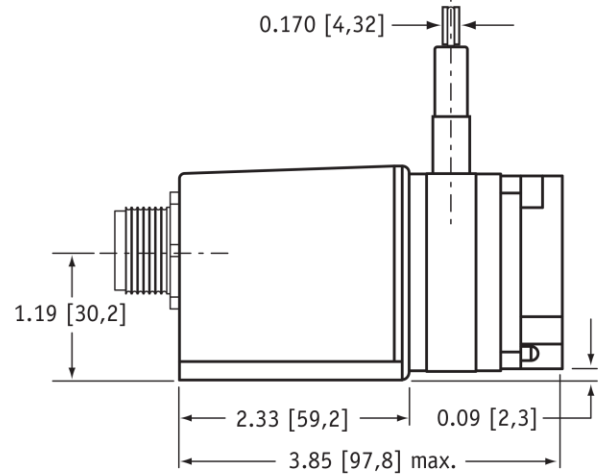
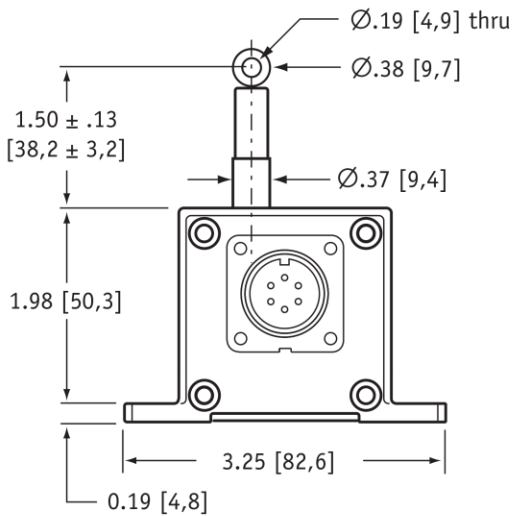
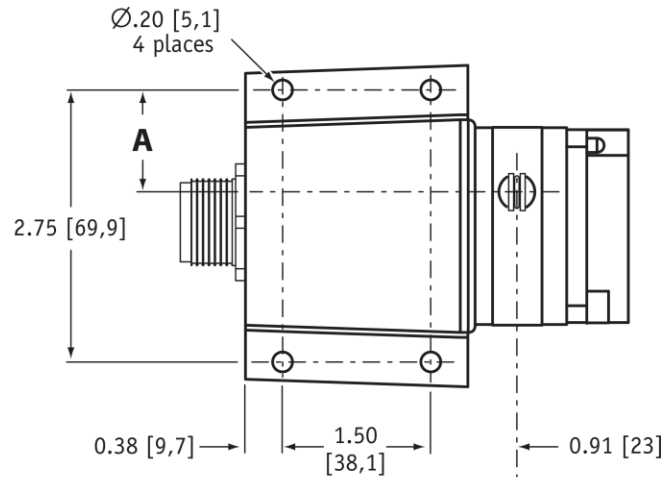


-- see ordering information for available channels

Outline Drawing



| Range | A |
|--------------------|-------------|
| 25, 625 | 1.04 [26,4] |
| 50, 1250 | 0.74 [18,8] |
| <i>inches [mm]</i> | |



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:



Sample Model Number:

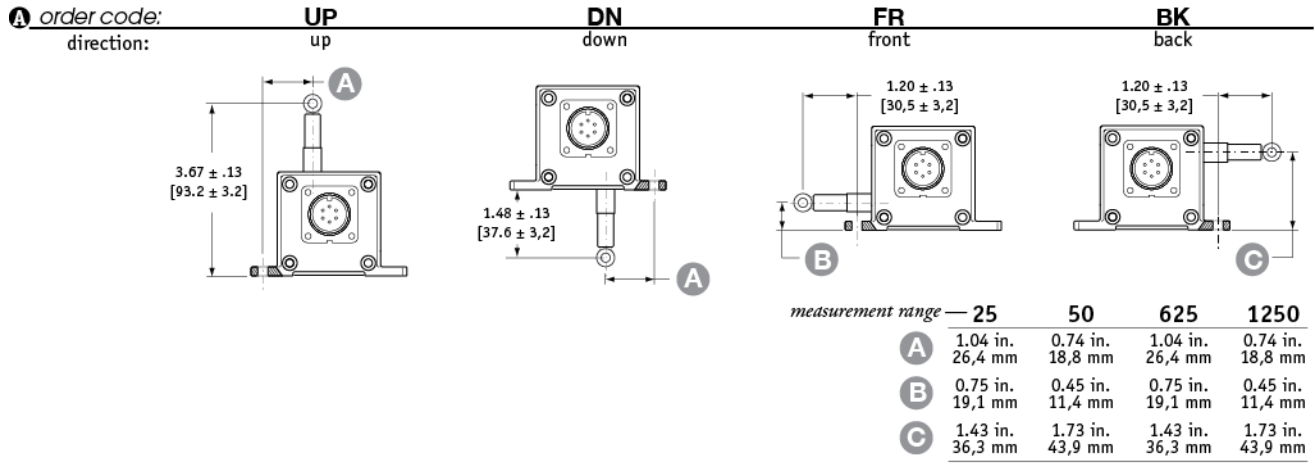
PT1E - 25 - UP - 50 - AB-TTL - MC4 - SG

- R** range: 25 inches
- A** measuring cable exit: up
- B** resolution: 50 pulses per inch
- C** electrical connection: 4-pin micro connector
- D** output signal: TTL/CMOS driver, Channels A,B
- E** cable guide: spring-loaded guide

Full Stroke Range:

| R order code: | 25 | 50 | 625 | 1250 |
|---------------------------|-------------------------------------|-----------------------------------|-----------------------------|-----------------------------|
| full stroke range, min: | 25 in. | 50 in. | 625 mm | 1250 mm |
| cable tension (±20%): | 12 oz. | 6 oz. | 3,3 N | 1,6 N |
| cable acceleration, max.: | 11 g | 4 g | 11 g | 4 g |
| resolution options: | 50, 500, 1000, 1250 pulses per inch | 25, 250, 500, 625 pulses per inch | 2, 20, 40, 50 pulses per mm | 1, 10, 20, 25 pulses per mm |

Cable Exit:



Resolution

| | | | | |
|----------------------------|-------------------------|-------------------------|--------------------------|--------------------------|
| B order code: | 50 | 500 | 1000 | 1250 |
| 25-inch full stroke range: | 50 ±1 pulses per inch | 500 ±10 pulses per inch | 1000 ±20 pulses per inch | 1250 ±24 pulses per inch |
| B order code: | 25 | 250 | 500 | 625 |
| 50-inch full stroke range: | 25 ±0.5 pulses per inch | 250 ±5 pulses per inch | 500 ±10 pulses per inch | 625 ±12 pulses per inch |
| B order code: | 2 | 20 | 40 | 50 |
| 625 mm full stroke range: | 2 ±0,04 pulses per mm | 20 ±0,4 pulses per mm | 40 ±0,8 pulses per mm | 50 ±1 pulses per mm |
| B order code: | 1 | 10 | 20 | 25 |
| 1250 mm full stroke range: | 1 ±0,02 pulses per mm | 10 ±0,2 pulses per mm | 20 ±0,4 pulses per mm | 25 ±0,5 pulses per mm |

Output Signal

