



mm PT1E

Description

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

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.

GENERAL

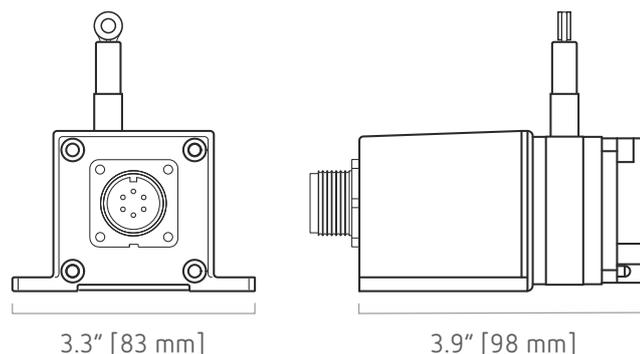
Full Stroke Range Options	0-25 to 0-50 inches
Output Signal	incremental encoder (quadrature)
Accuracy	0.04% full stroke contact factory for higher accuracy
Repeatability	± 0.02% full stroke
Resolution Options	25 to 1250 pulses per inch
Measuring Cable Options	.019-in. dia. nylon-coated stainless steel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

ELECTRICAL

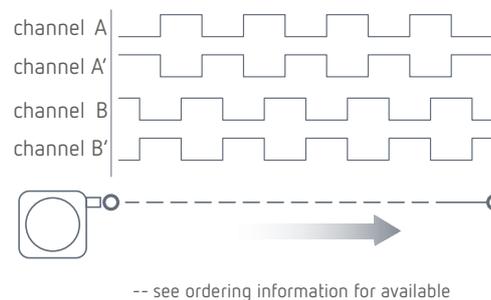
Input Voltage	see ordering information
Input Current	see ordering information

ENVIRONMENTAL

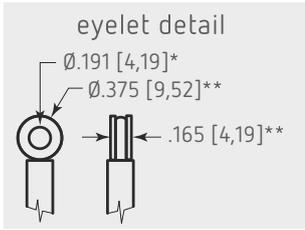
Enclosure	NEMA 4, IP 65
Operating Temperature	0° to 160°F (-17° to 71°C)
Vibration	up to 10 g to 2000 Hz maximum



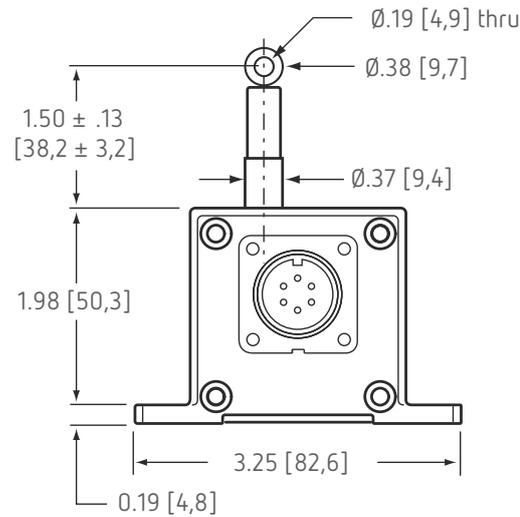
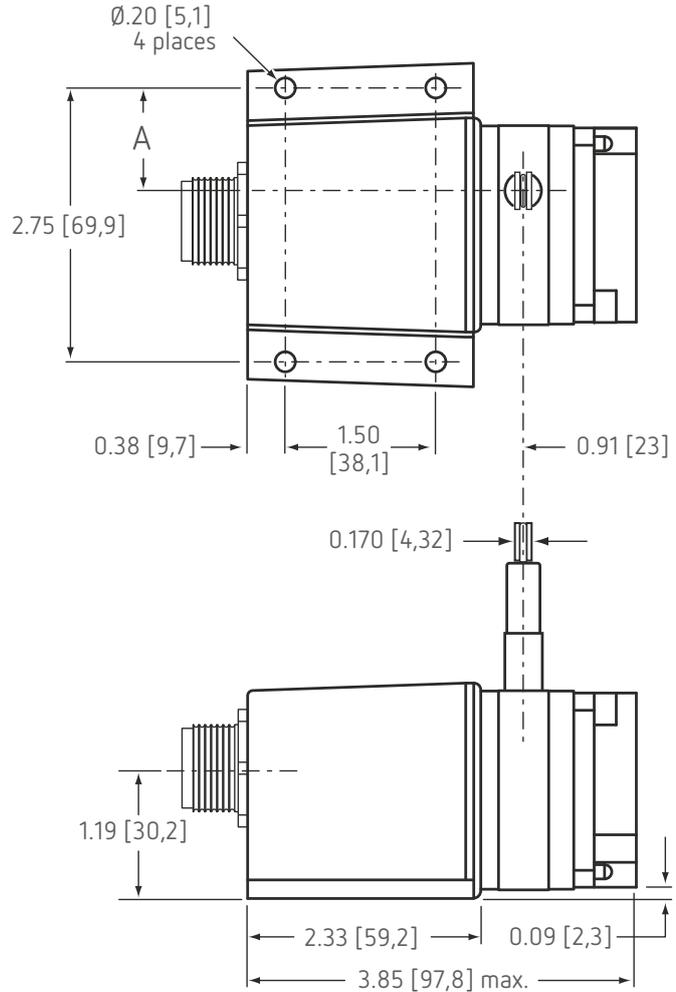
Output signal



Outline drawing



Range	A
25, 625	1.04 [26,4]
50, 1250	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:

PT1E - - - - -
order code: **R** **A** **B** **C** **D** **E**

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:

	25	50	625	1250
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

Ordering Information (cont.):

Cable Exit:

order code: direction:	UP up	DN down	FR front	BK back																				
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Resolution:

● _____

● _____

● _____

● _____

Output Signals:

order code:	AB-TTL	AB-OC	ABC-LD	ABC-UD
output driver:	TTL - CMOS	Open Collector	5 V - Line Driver	Universal Line Driver
	Input voltage (V+): 4.5...13.2 Vdc Sink current: 20 mA max. Input current: 80 mA max.	Input voltage (V+): 10.8...26.4 Vdc Sink current: 20 mA max. Input current: 80 mA max.	Input voltage (V+): 5 Vdc Sink current: 20 mA max. Input current: 150 mA max.	Input voltage (V+): 5...30 VDC Source/Sink: 20 mA max. Input current: 100 mA max, no load

Ordering Information (cont.):

Electrical Connection:

Order code:	MC4	M6	C25																																																									
	4-pin micro-connector with 12 ft [3.5 M] cordset	6-pin plastic connector with mating plug	25-ft. instrumentation cable 24 AWG, shielded																																																									
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Cable Guide:

Order code:	blank	SG
	standard cable guide	spring-loaded guide
		<p>cushions impact from accidental free</p> <p>*note: start of full stroke range begins at full compression</p>