

# Cable-Extension Position Transducer

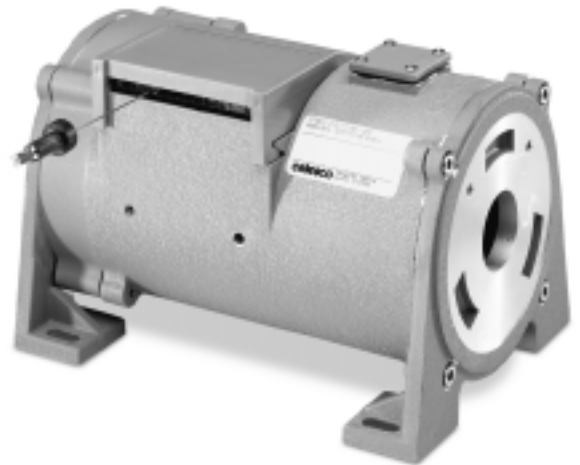
- ▼ Medium to Long Range
- ▼ Mates With Virtually Any Encoder
- ▼ Pre-mated to Encoder or Separate Module

# PT9600

## Specifications:

### GENERAL

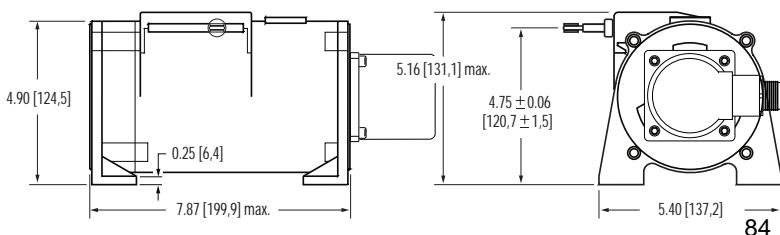
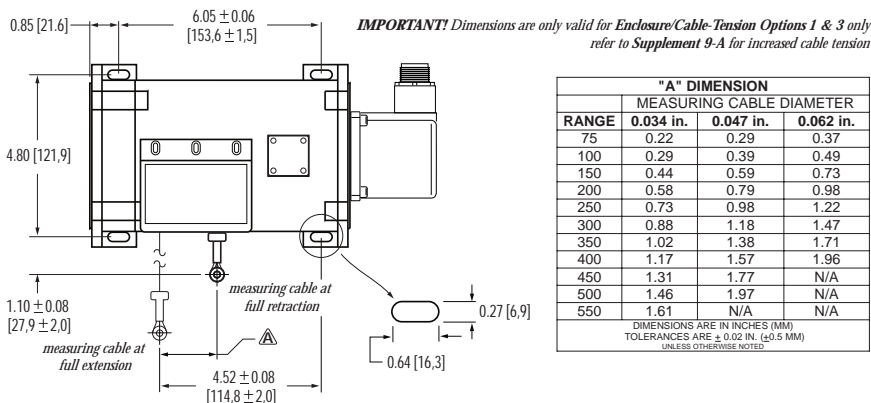
Full Stroke Range: ..... 0-75 to 0-550 inches, see ① next page  
 Motion Conversion Ratio: ..... 1 turn = 12.6 inches, see ⑥ and ⑦  
 Accuracy  
 Typical ..... the lesser of 0.02% f.s. or 0.04% of measurement +1/2 pulse max.  
 Best ..... not less than 0.001 in. (0.03 mm)  
 Repeatability ..... 0.02% of measurement +1/2 pulse max.  
 Measuring Cable ..... nylon-coated stainless steel or thermoplastic, see ③  
 Enclosure Material ..... powder-painted aluminum or stainless steel  
 Encoder Shaft Coupling ..... aluminum flexible coupling  
 Maximum Allowable Rotational Sensor Torque ..... 1.0 in.-lbs.  
 Maximum Retraction Acceleration ..... see ⑤  
 Maximum Velocity ..... see ④  
 Weight, Aluminum Enclosure ..... 8 lbs., max.  
 Weight, Stainless Steel Enclosure ..... 16 lbs., max.



**PT9600**  
 mated to  
 BEI Encoder  
 for  
**high-resolution**  
 applications

Our unique linear-to-rotational, industrial-grade measurement module mates to virtually any encoder, giving you a cost-effective long-range linear position measurement solution that precisely fits your requirements.

This modular approach delivers the ultimate in flexibility. As a reseller of many top-brand encoders, Latin-Tech can deliver a complete solution with the PT9600 pre-mated and calibrated to an encoder. The PT9600 takes just minutes to install, fits easily into tight areas, does not require perfectly parallel alignment, and provides reliable and precise position measurements without needing periodic adjustments.



Latin Tech, Inc.

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# PT9600 • Cable-Extension Motion Conversion Module

## ▼ Ordering Information

### Model Number:

**PT9600-** \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_  
*order code:*                      **R**                      **A**                      **B**                      **C**                      **D**

### Full Stroke Range:

	<b>R</b> <i>order code:</i> <b>0075</b>	<b>0100</b>	<b>0150</b>	<b>0200</b>	<b>0250</b>	<b>0300</b>
① full stroke range, min:	75 inches	100 inches	150 inches	200 inches	250 inches	300 inches
	<b>R</b> <i>order code:</i> <b>0350</b>	<b>0400</b>	<b>0450*</b>	<b>0500*</b>	<b>0550*</b>	
full stroke range, min:	350 inches	400 inches	450 inches	500 inches	550 inches	

### Enclosure Material & Measuring Cable Tension:

	<b>A</b> <i>order code:</i> <b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
enclosure:	see drawing (front page)	see Supplement 9-A	see drawing (front page)	see Supplement 9-A
② enclosure material:	powder-painted aluminum		303 stainless steel	
③ cable tension (±30%):	26 oz.	42 oz.	26 oz.	42 oz.
④ maximum velocity:	60 inches per second	200 inches per second	20 inches per second	80 inches per second
⑤ max. retraction acceleration:	1 G	5 G's	0.33 G	2 G's

note: **\*42 oz. cable tension** (see ③ below) for these ranges is strongly recommended!

### Motion Conversion Ratio & Measuring Cable:

	<b>B</b> <i>order code:</i> <b>1*</b>	<b>2**</b>	<b>3***</b>
⑥ conversion ratio, <b>aluminum</b> enclosure:	1 turn = 12.673 (±0.010)	1 turn = 12.714 (±0.010)	1 turn = 12.755 (±0.010)
⑦ conversion ratio, <b>stainless-steel</b> enclosure:	1 turn = 12.579 (±0.010)	1 turn = 12.620 (±0.010)	1 turn = 12.661 (±0.010)
⑧ cable construction:	.034 nylon coated stainless steel	.047 stainless steel	.062 thermoplastic

notes:                      **\*available in all ranges**

**\*\*available in ranges up to 500-inches only**

**\*\*\*available in ranges up to 400-inches**

### Cable Exit:

<b>C</b> <i>order code:</i> <b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	
direction:	front	top	rear	bottom

## ***Rotational Sensors:***

① *order code:* \_\_\_\_\_ *partial listing only--if you don't see the sensor you are looking for please contact Latin-Tech*

<b>Incremental Encoders:</b>	<b>AB-845H-DZ</b>	Allen Bradley, Model 845 H, square flange, 3/8" shaft
	<b>BEI-H20DB-37</b>	BEI, Model H20, square flange, 3/8" shaft, pilot
	<b>BEI-H25D</b>	BEI, Model H25, square flange
	<b>DRC-25D</b>	Dynamics Research, Model 25D, square flange
	<b>DYN-625-0</b>	Dynapar, Model 625, square flange
	<b>EPC-702-20-G</b>	EPC, Model 702, square flange, 3/8"shaft, pilot
	<b>EPC-702-01-H</b>	EPC, Model 702, hollow shaft, 1/4" bore, flex mnt.
	<b>STE-DG60LWS</b>	Stegmann, Model DG60L, face mount flange, 10mm shaft
<b>Absolute Encoders:</b>	<b>BEI-R25</b>	BEI, Model R25, square flange
	<b>CO-CP850-S</b>	Computer Optical, servo mount, 3/8" shaft
	<b>DYN-A25</b>	Dynapar, Model A25, square flange
	<b>FRABA-AWC58-F</b>	FRABA, model AWC58, clamp flange, 10mm shaft
	<b>IVO-GA240</b>	IVO Industries, model GA240, servo mount
	<b>STE-AG-626-W</b>	Stegmann, Model AG 626, face mount flange, 10 mm shaft
<b>Explosion Proof:</b>	<b>JC-1010</b>	Jordan Controls, Position Transmitter-PT1010
<b>Resolvers:</b>	<b>NEO-2510</b>	Neotech, Model 2510, servo mount
	<b>MIC-50</b>	Micron Instrument Corporation, Model 50 series
	<b>CC-HR90</b>	Computer Coverions, Model HR90

## **▼ Sample Model Number**

**PT9600- 0200 - 1 1 1 - BEI-H25D**  
order code:           Ⓡ           Ⓐ           Ⓟ           Ⓢ           Ⓣ

Specifications: Full Stroke Range: 200 inches  
Enclosure Material: powder-painted aluminum  
Measuring Cable: 0.034-in dia. nylon-coated stainless steel cable  
Mating Sensor: BEI, Model H25D Incremental Encoder,  
2.5" square flange, 3/8" shaft

## **▼ Placing an Order**

**Purchasing PT9600 alone?** Please fax complete rotational sensor information, including outline drawing and model number specifications. Latin-Tech must be sure of sensor compatibility before your order will be accepted. The PT9600 comes with all the tools and hardware you'll need to attach the sensor to the module.

**Purchasing PT9600 with rotational sensor?** Please contact Latin-Tech Application Engineers for complete ordering information and pricing.

- ▼ All High Acceleration Applications
- ▼ 450-550 inch Full Stroke Applications

**General:**

Latin-Tech strongly recommends increased cable tension for:

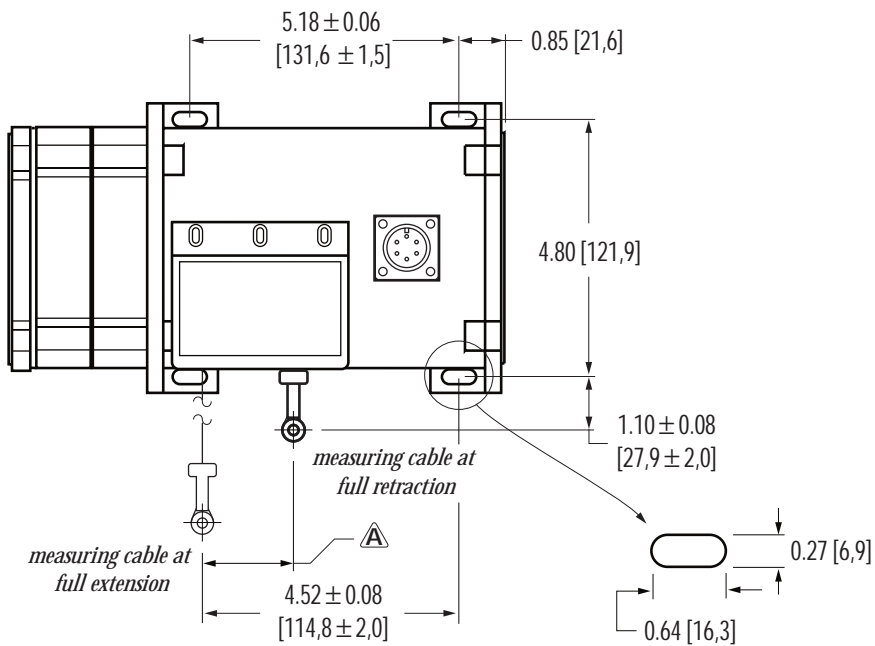
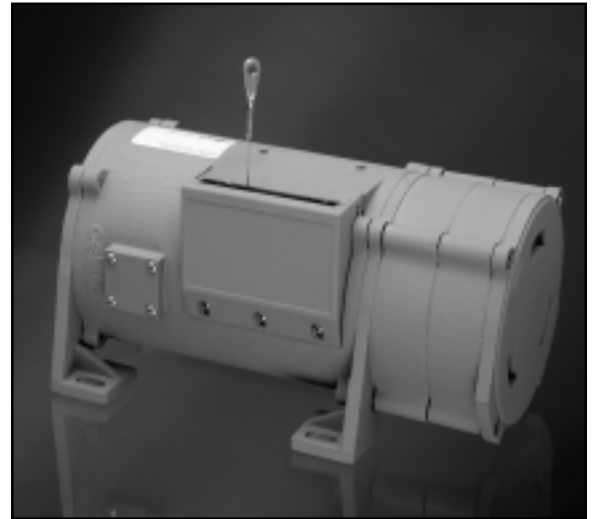
- Cable velocities greater than 60 inches per second
- Cable retraction accelerations exceeding:
  - 1 G (for aluminum enclosure)
  - 0.33 G (for stainless-steel enclosure)
- Applications with ranges 450 inches and greater to minimize cable sag and maintain dynamic capabilities.

**Transducer Models:**

PT9101	PT9150	PT9301
PT9420	PT9510	PT9600

**Available Ranges:**

75 to 550 inches



RANGE	"A" DIMENSION		
	MEASURING CABLE DIAMETER		
	0.034 in.	0.047 in.	0.062 in.
75	0.22	0.29	0.37
100	0.29	0.39	0.49
150	0.44	0.59	0.73
200	0.58	0.79	0.98
250	0.73	0.98	1.22
300	0.88	1.18	1.47
350	1.02	1.38	1.71
400	1.17	1.57	1.96
450	1.31	1.77	N/A
500	1.46	1.97	N/A
550	1.61	N/A	N/A

DIMENSIONS ARE IN INCHES (MM)  
TOLERANCES ARE ± 0.02 IN. (± 0.5 MM)  
UNLESS OTHERWISE NOTED

