



mm PT9600

Description

- Converts ANY Rotary Encoder to a Linear Position Sensor
- Stroke Range Options: 0-600 to 0-1700 inches
- Mates Virtually ANY Customer Supplied Encoder
- Factory Supplied Encoder Available
- Extended range



Our unique string encoder 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. To order, simply select the measurement range, the cable tension and encoder mounting style—it's that easy! We even supply all the necessary encoder mounting tools and attaching hardware. If you can't find your encoder mounting style or you want us to provide the encoder, please give us a call.

GENERAL

Full Stroke Range Options (on this datasheet) 0-600 to 0-1700 in.

Motion Conversion Ratio 12.6 inches per turn, see ordering information

Accuracy the lesser of $\pm 0.02\%$ f.s. or $\pm 0.04\%$ measurement $\pm 1/2$ pulse

Accuracy, best not less than 0.001 in. (0.03mm)

Repeatability $\pm 0.02\%$ of measurement $\pm 1/2$ pulse

Measuring Cable Options see ordering information

Module Material Options powder-painted aluminum or stainless

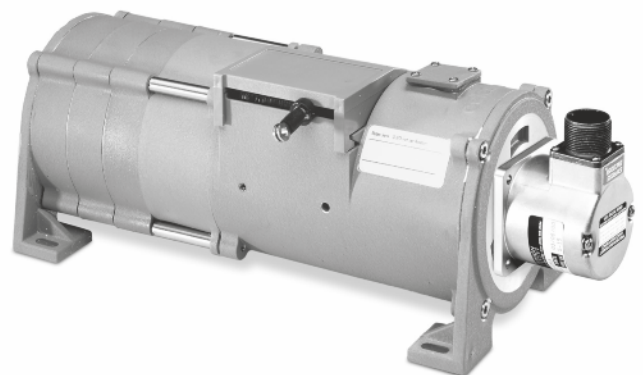
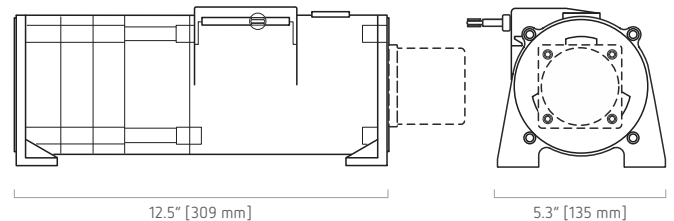
Encoder Coupling aluminum flexible coupling

Maximum Allowable Rotational Sensor Torque 1.0 in.-lbs.

Maximum Retraction Acceleration see ordering information

Maximum Velocity see ordering information

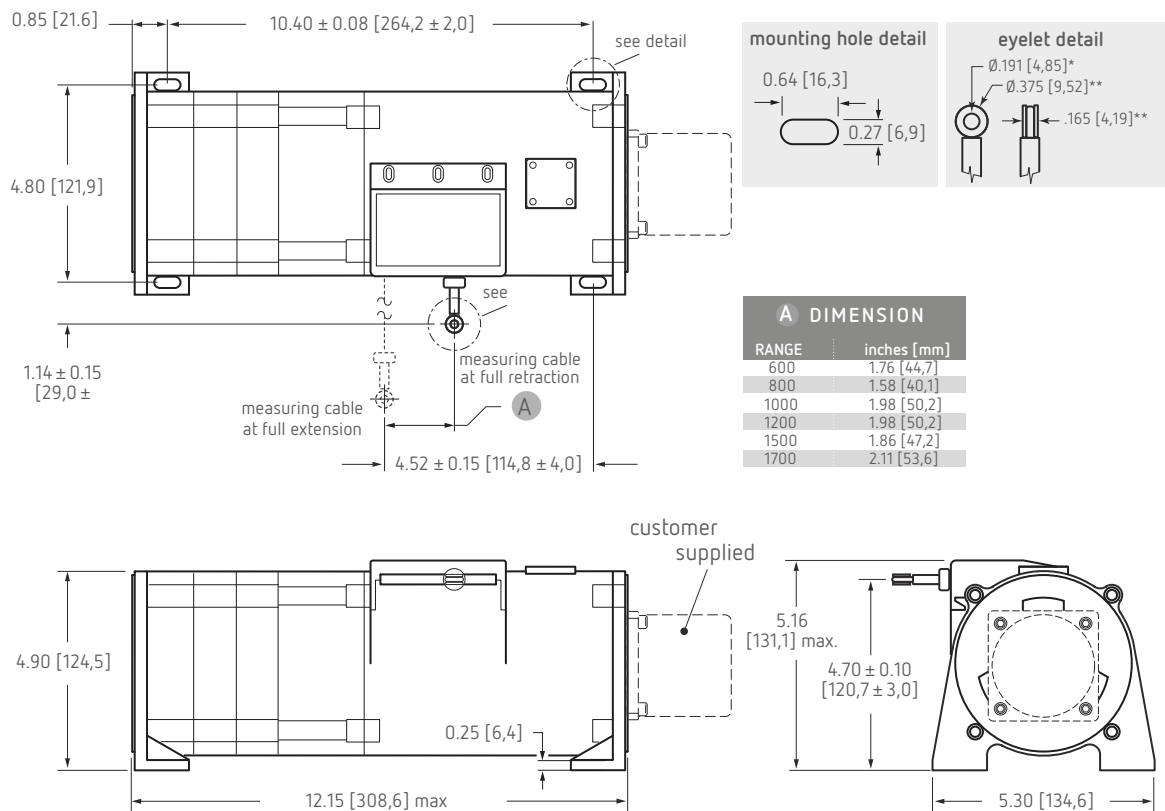
Weight Aluminum (Stainless Steel) Enclosure 14 lbs. (28 lbs.) max.



ENVIRONMENTAL

Operating Temperature -40° to 200°F (-40° to 90°C)

Outline Drawing



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: **PT9600-** _____
order code: **R** **A** **B** **C** **D**

Sample Model Number:

PT9600 - 1500 - 111 - F01

- R** range: 1500 inches
- A** enclosure: aluminum
- B** measuring cable: nylon coated stainless steel (Ø.014 in.)
- C** cable exit: front
- D** rotational sensor mounting style: F01 (2.5-in. sq. flange)

Full Stroke Range

| R order code: | 0600 | 0800 | 1000 | 1200 | 1500 | 1700 |
|-------------------------|---------|---------|----------|----------|----------|----------|
| full stroke range, min: | 600 in. | 800 in. | 1000 in. | 1200 in. | 1500 in. | 1700 in. |
| cable tension (± 35%): | 27 oz. | 24 oz. | 20 oz. | 19 oz. | 18 oz. | 17 oz. |

conversion ratio (nylon-coated stainless steel rope option)

| measuring cable diameter: | Ø.034-in. | Ø.019-in. | Ø.019-in. | Ø.019-in. | Ø.014-in. | Ø.014-in. |
|-------------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| aluminum enclosure, 1 turn = | 12.673 ± .016 in. | 12.626 ± .016 in. | 12.626 ± .016 in. | 12.626 ± .016 in. | 12.613 ± .016 in. | 12.613 ± .016 in. |
| stainless steel enclosure, 1 turn = | 12.579 ± .022 in. | 12.532 ± .022 in. | 12.532 ± .022 in. | 12.532 ± .022 in. | 12.519 ± .022 in. | 12.519 ± .022 in. |

conversion ratio (bare stainless steel rope option)

| measuring cable diameter: | Ø.031-in. | Ø.018-in. | Ø.018-in. | Ø.018-in. | Ø.014-in. | Ø.014-in. |
|-------------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| aluminum enclosure, 1 turn = | 12.662 ± .016 in. | 12.623 ± .016 in. | 12.623 ± .016 in. | 12.623 ± .016 in. | 12.613 ± .016 in. | 12.613 ± .016 in. |
| stainless steel enclosure, 1 turn = | 12.570 ± .022 in. | 12.529 ± .022 in. | 12.529 ± .022 in. | 12.529 ± .022 in. | 12.519 ± .022 in. | 12.519 ± .022 in. |

Enclosure Material

| A order code: | 1 | 3 |
|----------------------|----------------|---------------------|
| enclosure material: | powder-painted | 303 stainless steel |
| max. acceleration: | aluminum 1g | 1g |
| max. velocity: | 60 inches/sec. | 60 inches/sec. |

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■ Ordering Information (cont.)

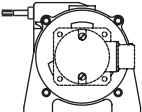
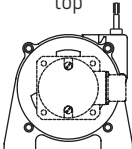
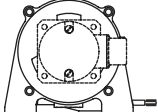
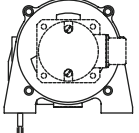
Measuring Cable

| B order code: | 1 | 2 |
|---------------------|------------------------------------|-----------------------------------|
| cable construction: | nylon-coated stainless steel rope* | bare stainless steel rope* |
| general use: | indoor | outdoor, debris, high temperature |

*cable diameter:

| stroke range: | 0600 | 0800 | 1000 | 1200 | 1500 |
|-------------------------|----------|----------|----------|----------|----------|
| nylon-coated stainless: | 1700 | | | | |
| bare stainless: | .034 in. | .019 in. | .019 in. | .019 in. | .014 in. |

Cable Exit

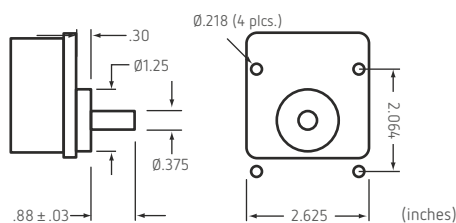
| C order code: | 1 | 2 | 3 | 4 |
|---------------|---|---|---|---|
| | front | top | back | down |
| |  |  |  |  |

Rotational Sensor Mounting Style

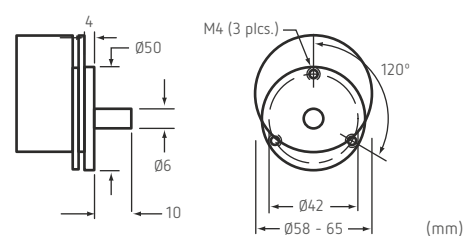
| D order code: | F01 | F02 | S01 | S02 | S04 |
|---------------|--|--------------------------------------|--|---|---|
| | 2.5-in. Flange Mount 3/8-inch shaft | 2-in. Flange Mount 3/8-inch shaft | Face-Mount 6 mm shaft M4 mounting screws | Face-Mount 10 mm shaft M4 mounting screws | Face-Mount 10 mm shaft M3 mounting screws |

Note: If you don't see your encoder style, please contact factory. All encoder types supported.

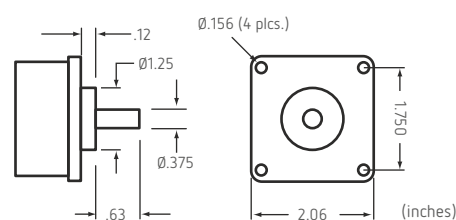
F01 - 2½ -inch Sq. Flange Mount (3/8-inch shaft)



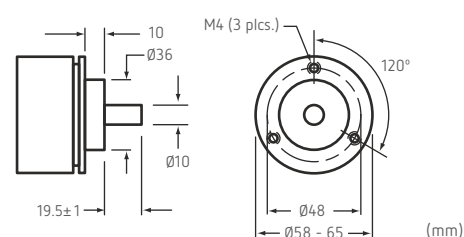
S01 - Face-Mount (6mm shaft/M4 screws)



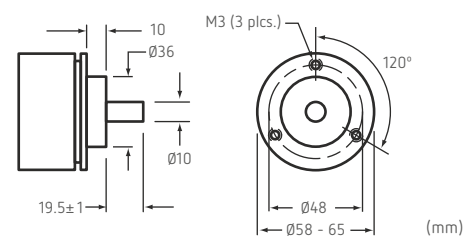
F02 - 2-inch Sq. Flange Mount (3/8-inch shaft)



S02 - Face-Mount (10mm shaft/M4 screws)



S04 - Face-Mount (10mm shaft/M3 screws)



The information provided herein is to the best of our knowledge true and accurate, it is provided for guidance only. All specifications are subject to change without prior notification.

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