Rotary Shaft Encoder

#380 High-Resolution Digital Pulse Output

- Ideal for use on slow-speed applications
- Multiple mounting configurations for easy installation
- Wide variety of pulse per revolution (PPR) counts available
- Provides precise pulse train for use with Tachometers, Counters, Speed Switches and Speed-to-Analog Converters

#470 Heavy-Duty Model

- Provides precise pulse train for use with Tachometers, Counters, Speed Switches and Speed-to-Analog Converters

Product Information

Description
Rotary Shaft Encoders are ideal for use on any moving shaft to provide a digital output signal to tachometers, counters, speed switches, and motor controls. Flexible shaft couplings are available as an option to compensate for shaft misalignment, and are recommended for most applications.

Electro-Sensors' Rotary Shaft Encoders convert shaft rotation into square wave output pulses. They provide an accurate means of transmitting actual speed information for detecting rate, position, or direction of rotation. The shaft encoder produces an output signal by rotating a disc with clear and opaque segments between a light-emitting diode and a photo-transistor sensor. This signal is then converted into a square wave signal by an internal squaring circuit. The number of output pulses per shaft revolution is determined by the number of clear and opaque segments on the disc. Quadrature models have a second LED and sensor positioned 90 degrees apart to produce two square wave signals.

The #380 Encoder is a standard industrial grade encoder available with single channel or quadrature output. The #470 Encoder has a size 25 heavy-duty industrial housing with rugged sealed ball bearings and an anti-backlash flexible shaft coupling to isolate the internal high precision encoder from both axial and radial shaft loading. The #470 supplies a quadrature output with an index pulse, and optional line driver output.

#380 Dimensional Drawing

- Wiring Color Code
  - A . . . . . Common ............................................. Black
  - B . . . . . V+ .................................................. Red
  - C . . . . . Index Pulse (Optional) ..................... Yellow
  - D . . . . . Output A ........................................... White/Clear
  - E . . . . . Output B (Optional) ......................... Green
  - F . . . . . No Connection .................................. N/C

#470 Dimensional Drawing

- Wiring Color Code
  - A . . . . . Data A ............................................ White
  - B . . . . . Data B ............................................... Blue
  - C . . . . . Index Z ................................................ Yellow
  - D . . . . . V+ ..................................................... Red
  - E . . . . . No Connection .................................. N/C
  - F . . . . . Common ............................................ Black
  - G . . . . . Case ................................................. Green

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