MODEL HRL-P
INCREMENTAL ENCODER

CE

Fits shafts up to 1 (25.4mm) diameter

Programmable via DIP switches at installation time

User selectable pulses per revolution

Output circuits:
  Current sinking (NPN),
  Current sourcing (PNP),
  Push-Pull,
  NPN open collector

Exclusive Anti-Jitter option

Short-circuit and ESD protection

5 vdc, or 8 to 30 vdc supply voltages

2 and 3 output models available

Fully interchangeable with model HRL

Custom models available

1 Diameter Programmable Hollow Shaft

The Photocraft Model HRL-P is an optical hollow shaft encoder that mounts directly on an existing shaft assembly. A flexible mounting bracket allows the encoder to float on the shaft without rotating. It generates up to 3 square wave outputs depending on factory installed program and options, and on DIP switch values set at installation time. The types of outputs are based on shaft rotation as follows:

Pulse Output: A Single output (A) with a specific number of pulses per revolution (ppr) of the shaft; Dual outputs (A and B) with two independent outputs and the ppr on A can be different than the ppr on B; or Triple outputs (A, B, and C) with three independent outputs.

Quadrature: Two pulse outputs, A and B, have the same ppr and are in quadrature relation to each other (A leads B by 90° for clockwise rotation as viewed from shaft end farthest from connector). Indicates distance and direction of shaft rotation to any control device that accepts quadrature inputs.

Zero Marker Output: Provides a zero reference or index pulse on output Z occurring once per revolution, having a pulse width approximately equal to a pulse on output A.

Direction Output: Indicates the direction of shaft rotation, clockwise or counter-clockwise.

Minimum Speed Output: Indicates when the shaft exceeds a predetermined revolutions per minute (rpm).

Single output models and any programmable model can include the **Anti-Jitter feature** designed for conveyor and web systems requiring continuous and accurate measurement of the web s movement even if the system must be stopped and restarted without reset. When the web stops, and if there is sufficient vibration or back-and-forth movement, then the encoder output could oscillate, appearing as if the web were actually moving. Anti-jitter eliminates this condition by significantly increasing the pulse hysteresis.

0402