RH-P600AJQ   Programmable Wheeled Encoder

DESCRIPTION

The RH-P encoder, also known as a Pulse Position Indicator (PPI) or Tach, is typically used to measure linear movement on a conveyor system. The number of counts per revolution is determined by setting configuration switches. An optional pair of 12" or 30cm circumference measuring wheels allow it to ride directly on the conveyor belt, tracking the conveyor independently of conveyor roller diameters. The RH-P also includes the Anti-Jitter feature that eliminates extraneous counts generated if the conveyor stops on a square wave boundary.
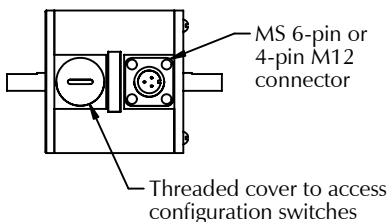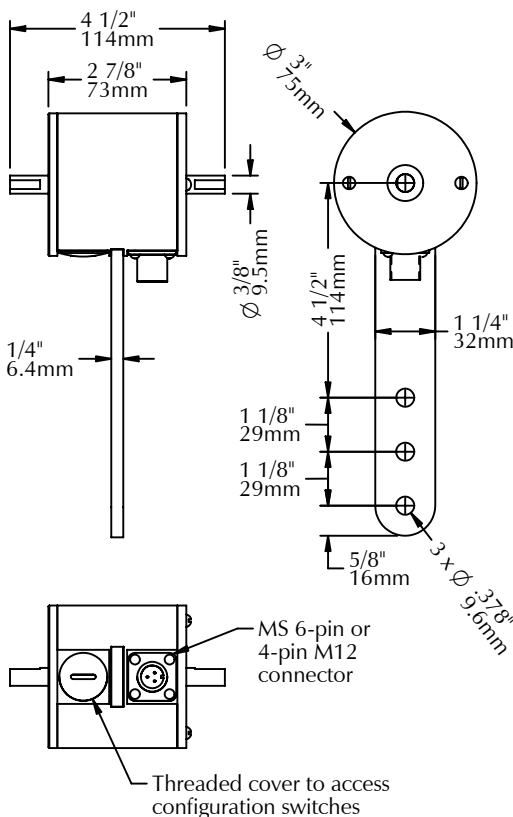
FEATURES

- **Programmable Counts per Revolution**
- **Selectable Output Type:**
  — Quadrature A and B outputs
  — Dual Anti-Jitter outputs
  — Dual high resolution outputs with Anti-Jitter
- **ESD / Short Circuit / Reverse Voltage Protected**
- **See the model R22 for a smaller wheeled encoder**

CE *

  * CE marking requires Photocraft cable, and surge protection option if cable exceeds 100' (30m) or leaves the building.

DIMENSIONS

4 1/2"
114mm

2 7/8"
73mm

Ø 3"
75mm

Ø 3/8"
9.5mm

4 1/2"
114mm

1 1/4"
32mm

1/4"
6.4mm

1 1/8"
29mm

1 1/8"
29mm

5/8"
16mm

3 × Ø 3/8"
9.6mm

MS 6-pin or 4-pin M12 connector

Threaded cover to access configuration switches

TRI-TRONICS®

MATERIAL HANDLING AND INDUSTRIAL EXPERIENCE SINCE 1974

PHOTOCRAFT Encoders

SPECIFICATIONS

Mechanical

Weight: 1.3 lbs (600 gm)
Shaft Loading: Radial: 25 lb. (11.3 kg.) max
                Axial: 10 lbs. (6.8 kg.) max
Bearing Life: 70 x 1,000,000/rpm = hours
Materials:
     — Case: Aluminum, anodized
     — Shaft: 303 Stainless steel
     — Switch cover: Plastic
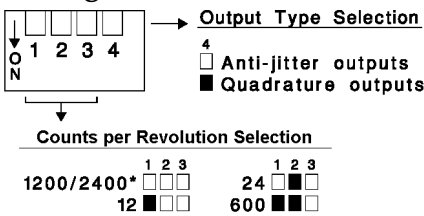**Maximum Operating Speed:** 1,200 rpm

Electrical

Supply Voltages (+vdc): (specify when ordering)
     5 ± 5% vdc   or   8 to 30 vdc
Current: 50 ma max (no load)
           100 ma max (line driver)
Operating Temperature: 0° to +70° C
Output Circuit: (specify when ordering)
   Output voltage level is approximately the same as the input voltage level.
   Single Ended:
     — NPN open collector (30vdc/50mA max)
     — Push/Pull (50mA max source/sink)
   Differential Line Driver:
     — 7272 line driver (output same as input volts)
     — RS422 line driver (regulated 5vdc output)

Configuration Switches

Output Type Selection

□ Anti-Jitter outputs
■ Quadrature outputs

Counts per Revolution Selection

	1 2 3		1 2 3
1200/2400*	□□□	24	□■■
12	■□□	600	■■□

   * Dual high resolution outputs

Switch definitions: □ Up (off), ■ Down (on)

Outputs

Anti-Jitter Outputs: Outputs A and B have identical counts per revolution. Output hysteresis is increased to ½ of a pulse width (15° for 12 pulses per revolution), eliminating the effects of mechanical vibration and the possible dither that results in false outputs.

Quadrature Outputs: Two outputs, A and B, have the selected number of counts per revolution. A leads B by 90° for clockwise rotation when viewed from shaft end farthest from connector.

Dual High Resolution Outputs:
Output A generates 1200 square wave counts per revolution. Output B generates 2400 fixed size counts per revolution: the output is normally high and goes low for 5microseconds for each count. Hysteresis is increased to 21% of a revolution. That is, the encoder generates counts as long as it rotates in one direction. If the direction reverses then output ceases until the encoder returns to its original direction of rotation and to its position before reversing. If reverse direction exceeds 21% then the encoder resets itself.

Electrical Connections

Single Ended Outputs:

MS 6-pin Pin No.	4-pin M12 Pin No.	Function	Wire Color
A	3	Common	Black
B	1	+vdc	Red
D	4	Output A	White
E	2	Output B	Green
C, F	-	not used	-

Differential Line Driver Outputs:

MS 6-pin Pin No.	Function	Wire Color
A	Common	Black
B	+vdc	Red
C	Output +A	White
D	Output -A	Blue
E	Output +B	Green
F	Output -B	Brown

MODEL NUMBER

RH	—	P600AJQ	/			

Model Number

Program Name: Call or see our website for information about other available programs for this encoder model.

Supply Voltage: **5** =5vdc, **8-30**=8-30vdc

Output Circuit: leave blank for push/pull, **C**=NPN open collector, **DL**=RS422 line driver, **DH**=7272 line driver

Modification Number: 6 pin MS style connector is standard. **M131** = 4-pin 12mm connector. Call or see our website for other modifications.

Accessories: leave blank for no accessories. Call or see our website for more information.

Example: **RH-P600AJQ/8-30** - model RH, P600AJQ program, 8-30vdc, push/pull output, 6-pin MS style connector