

RH-P300AJQ

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 Enhanced Anti-Jitter feature that eliminates extraneous counts generated if the conveyor stops on a square wave boundary, or backs up a short distance.

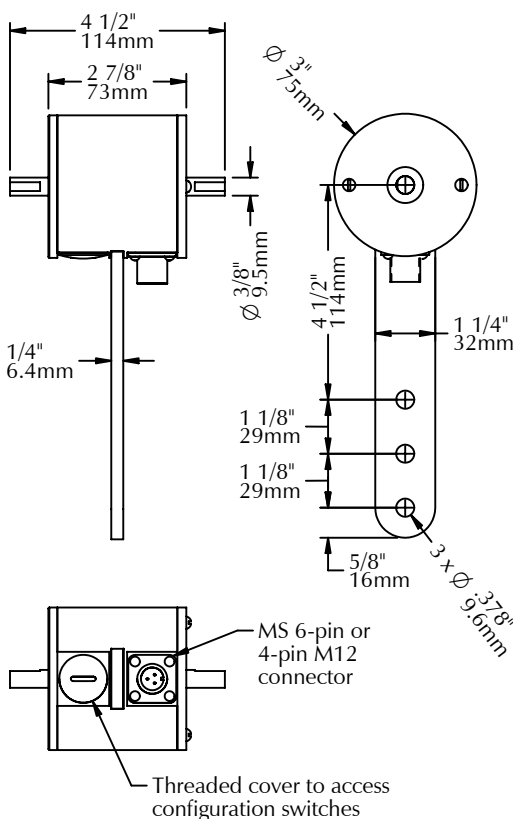
FEATURES

- Programmable Counts per Revolution
- Quadrature A and B outputs
- Enhanced Anti-Jitter
- ESD / Short Circuit / Reverse Voltage Protected
- See the model R22 for a smaller wheeled encoder



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

DIMENSIONS



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: 1,500 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.

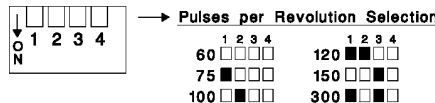
Single Ended:

- 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



Switch definitions: ☐ Up (off), ☒ Down (on)

Outputs

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

Enhanced Anti-Jitter: Increases pulse output hysteresis to 43% of a revolution. That is, the encoder generates pulses as long as it continues to rotate in one direction. If the direction reverses then pulse output ceases until the encoder returns to its original direction of rotation and to its position before reversing. If the reverse direction exceeds 43% of a revolution then the encoder resets itself and begins generating pulses.

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

Accessories: See our website for cables, measuring wheels, and mounting brackets for above and under a conveyor.

MODEL NUMBER

RH	P300AJQ				
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-P300AJQ/8-30 - model RH, P300AJQ program, 8-30vdc, push/pull output, 6-pin MS style connector



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