

RH-P144AJZ

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 pulses per revolution on output A is determined by setting configuration switches. An optional index pulse or zero marker reference is generated on output Z once per revolution. 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 pulses generated if the conveyor stops on a pulse edge.

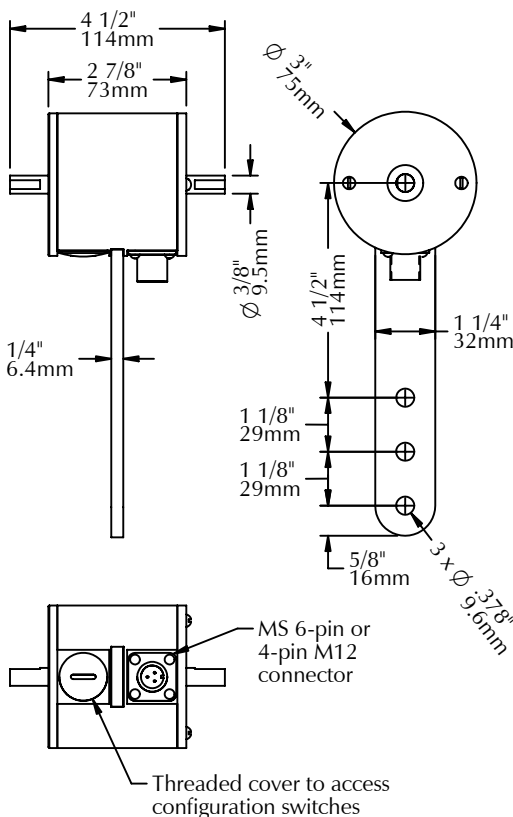
FEATURES

- Programmable Pulses/Revolution
- Option Index Output (Zero Marker)
- ESD / Short Circuit / Reverse Voltage Protected
- Exclusive "Anti-jitter" Circuit for Conveyor Applications
- 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

Electrical

Supply Voltages (+vdc): (specify when ordering)

5 \pm 5% vdc or 8 to 30 vdc

Current: 50 ma max (no load)

100 ma max (line driver)

Operating Temperature: -25° to +85° 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)

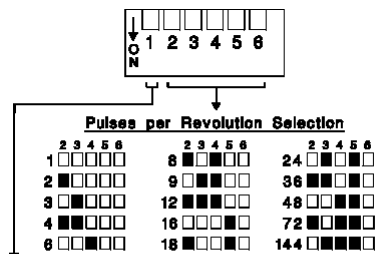
— Push/Pull (50mA max source/sink)

Differential Line Driver:

— 7272 line driver (output same as input volts)

— RS422 line driver (regulated 5vdc output)

Configuration Switches



Zero Marker Output

- ☐ Enabled (1 pulse per revolution on output Z)
☒ Disabled

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

Accessories

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

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: 2,500 rpm

Outputs

Pulses per Revolution: Selectable by setting switches 2 to 6 (see configuration switches), on Output A. "Low" when initially powered.

Anti-jitter: Increases pulse hysteresis to 1/2 of a pulse width eliminating the effects of mechanical vibration and the possible dither that results in false pulses.

Index Output: An approximately 2° duty cycle pulse generated once per revolution with fixed position relative to the shaft. Its position relative to the pulse output will be determined when power is applied.

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
C	2	Output Z	Green
D	4	Output A	White
E, 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 +Z	Green
F	Output -Z	Brown

MODEL NUMBER

Model Number	Program Name	Supply Voltage	Output Circuit	Modification Number	Accessories
RH	P144AJZ	5 = 5vdc, 8-30=8-30vdc	leave blank for push/pull, C=NPN open collector, DL=RS422 line driver, DH=7272 line driver	6 pin MS style connector is standard. M131 = 4-pin 12mm connector Call or see our website for other modifications.	leave blank for no accessories. Call or see our website for more information.

Example: RH-P144AJZ/8-30 - model RH, P144AJZ program, 8-30vdc, push/pull output, 6-pin MS style connector



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