

# RH-P600AJB

# Bidirectional 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 is determined by setting configuration switches. A direction output indicates the shaft rotation direction, clockwise (CW) or counter-clockwise (CCW), as viewed from the shaft end farthest from the connector. 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.

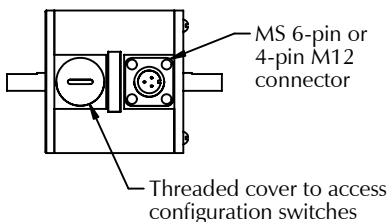
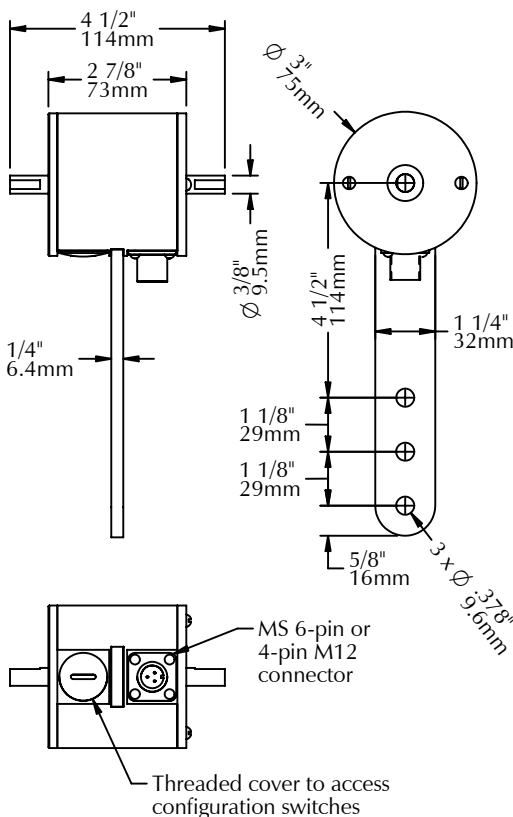
## FEATURES

- Programmable Pulses/Revolution
- Direction of Rotation Output
- 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 )

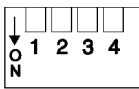
— Push/Pull (50mA max source/sink)

**Differential Line Driver:**

— 7272 line driver (output same as input volts)

— RS422 line driver (regulated 5vdc output)

### Configuration Switches



#### Direction Output Selection

- ☐ Output is "low" for CW rotation  
"high" for CCW rotation
- ☒ Output is "high" for CW rotation  
"low" for CCW rotation

#### Pulses per Revolution Selection

	1	2	3		1	2	3
200	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	400	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
240	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	480	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
300	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	600	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
360	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				

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:** 2,000 rpm

### Outputs

**Pulses per Revolution:** Selectable by setting switches 1 to 3 (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.

**Direction Output:** Output B indicates the direction of rotation by setting configuration switch 4, and updated at each 1/1200th of a revolution. "Low" when initially powered.

### Electrical Connections

#### Single Ended Outputs:

MS 6-pin	4-pin M12	Wire
Pin No.	Pin No.	Function 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

<b>RH</b>	<b>P600AJB</b>			
<b>Model Number</b>	<b>Program Name</b>	<b>Supply Voltage:</b> 5 = 5vdc, 8-30 = 8-30vdc	<b>Output Circuit:</b> leave blank for push/pull, C = NPN open collector, DL = RS422 line driver, DH = 7272 line driver	<b>Modification Number:</b> 6 pin MS style connector is standard. M131 = 4-pin 12mm connector Call or see our website for other modifications.
	Call or see our website for information about other available programs for this encoder model.			<b>Accessories:</b> leave blank for no accessories. Call or see our website for more information.

Example: RH-P600AJB/8-30 - model RH, P600AJB program, 8-30vdc, push/pull output, 6-pin MS style connector



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