

DESCRIPTION

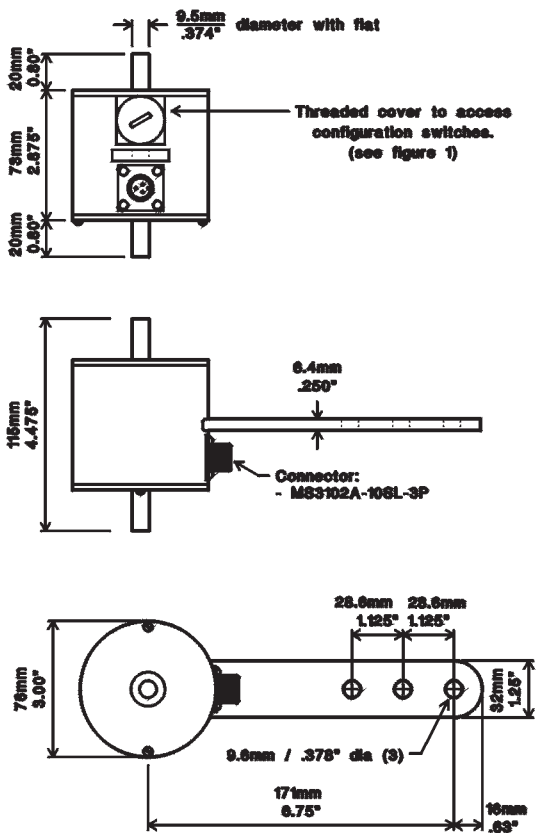
The RH-P300M encoder, also known as a Pulse Position Indicator (PPI), was designed for conveyor applications to ride directly on the belt or roller and generate output pulses; one pulse for each unit of linear movement of the conveyor. The unit of linear measure is determined by setting configuration switches at installation time (see figure 1). A pair of 30cm. circumference measuring wheels (MW-30-B) must be used to ensure accurate centimeter per pulse measurement. Various accessories are available for mounting either above or below the conveyor belt or roller.

FEATURES

- Selectable Linear Measurement per Pulse from 1 pulse per millimeter to 1 pulse per meter
- Selectable Output Circuit
- "Anti-Jitter" feature
- ESD, Short Circuit, Reverse Voltage Protection



DIMENSIONS



Electrical

Supply Voltage (V_{IN}): (specify when ordering)

Model	Voltage	R-Value*
RH-P300M/5	5 ± 5% vdc	1K
RH-P300M/8-30	8-30 vdc	3.3K

* See output circuit, figure 2 below

Supply Current: 50ma maximum (no load)

Output Current (I_O): 50ma max source/sink

Output Circuit: Selectable by setting switches 6 to 8 (see figures 1 and 2)

- Current sinking NPN transistor
- NPN open collector (V_{CC} =30vdc maximum)
- Current sourcing PNP transistor
- Combined sourcing/sinking output (push/pull output)

Operating temperature: 0° to 70° C

Maximum operating speed: 3,000 rpm

RoHS Compliant Models: RH-P300M/5 RC or RH-P300M/8-30 RC

Outputs

Centimeters per Pulse: Selectable by setting switches 1 to 5 (see figure 1)

Output Waveform: 50/50 squarewave

- **Pulse On-Off Ratio:** 50% ± 10%
- **Pulse Interval Jitter:** ±10%
- **Pulse rise time:** 2 µsec (max)
- **Pulse fall time:** 5 µsec (max)
- **Voltage (high):** V_{in} -2.5 vdc (min)
- **Voltage (low):** 1.5 vdc (max)

(600 rpm, V_{IN} =24vdc, 10ma < I_O < 50ma, 25°C)

Anti-Jitter: The anti-jitter feature increases the pulse output hysteresis to 1/2 of a pulse width, eliminating the effects of mechanical vibration and the possible dither that results in false output pulses. For example, a 10 pulse per revolution output would have 18° hysteresis (i.e. $360° \div 10 \times 1/2$).

Electrical Connections

Pin No.	Function	Wire Color
A	Supply Voltage	Red
B	Output	White
C	Common	Black
—	Case Ground	Plain

SPECIFICATIONS

Mechanical

Weight: .6 kg (1.3 lb) without accessories

Shaft Loading: Radial: 11.3 kg (25 lb) max.
Axial: 6.8 kg. (10 lb) max.

Bearing Life (L_{10}): 70 x 10⁶/RPM = hours

Materials: Case: Aluminum, anodized
Shaft: 303 Stainless steel

Accessories

Measuring Wheels (MW-30-B):
Circumference: 30.00 ± .025 cm.

Yoke Assembly (Y-1 or Y-3): A single point pivot mounting bracket.

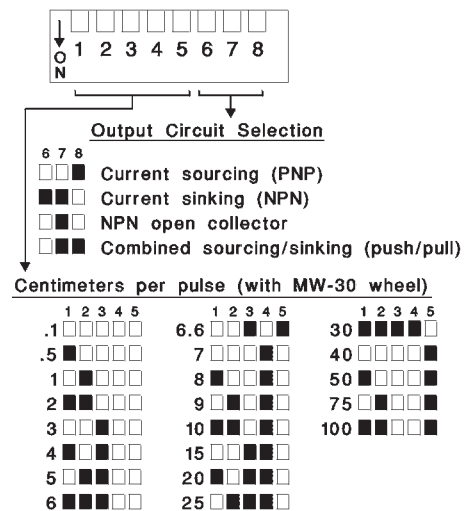
Under-belt Mounting Assembly (MB-UB1, MB-UB3, or MB-UB4)

Offset Mounting Assembly (MB-UB2): An extension arm that fastens to the side of a conveyor.

Cable Assembly (C3-3-10): 3m (10 ft) of shielded cable with mating connector.

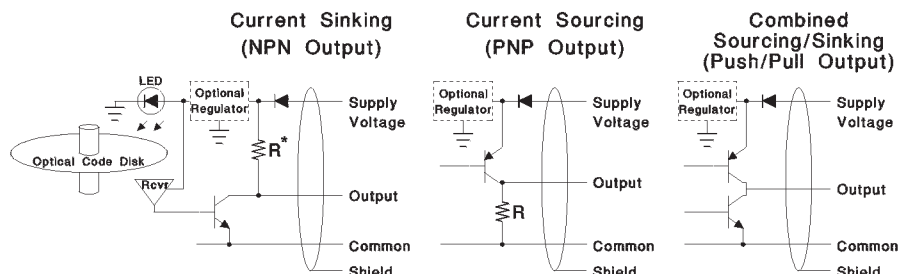
1. Other lengths are available.
2. CE marking requires Photocraft cable, and surge protection option if cable exceeds 30m or leaves building.

Configuration Switches



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

Figure 1 - Configuration Switches



*R is removed for NPN open collector

Figure 2 - Output Circuits



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