

DESCRIPTION

The RH-1800/3600 encoder, also known as a Pulse Position Indicator (PPI), generates both 1800 and 3600 pulses per revolution, making it suitable for high resolution printing and CCD scanner applications. When used with precision 12" circumference measuring wheels (MW-1-B) it generates 150 and 300 pulses per inch of linear movement. For conveyor applications, accessories are available for mounting either above or below the conveyor belt/roller.

FEATURES



- Enhanced "Anti-Jitter" feature
- Dual Outputs (150 and 300 pulse/inch)
- Enhanced ESD Protection
- Short Circuit / Reverse Voltage Protected

MODEL NUMBER

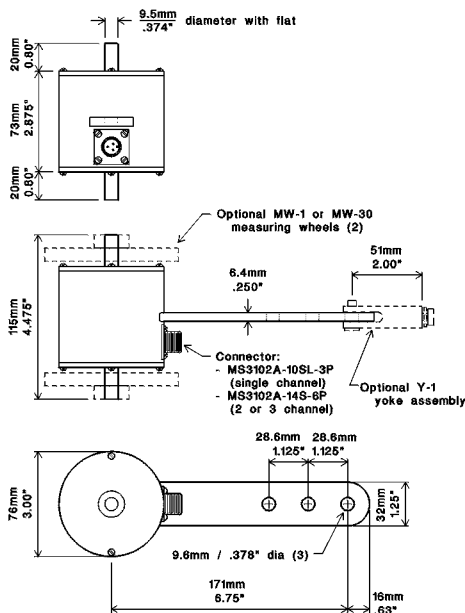
RH-1800 / 3600 / — — — M

Supply Voltage: 5 or 8-30

Output Circuit:
Push/Pull is standard
C = NPN open collector

Modification:
M139 = Enhanced Anti-jitter feature
M142 = Enhanced AJ and special cable

DIMENSIONS



Electrical

- Supply Voltage:** (specify when ordering)
- 5 ± 5% vdc
 - 8 to 30 vdc
- Supply Current:** 50ma maximum (no load)
- Output Current (I_O):** 50ma max source/sink
- Output Circuit:** (specify when ordering; figure 1)
- Push/Pull
Combined sourcing/sinking output
 - Open collector
NPN Open collector sinking output (V_{CC}=30 vdc maximum)
- Output Protection:**
- Outputs are protected from shorts and from excess current.
 - ESD protected to 8KV direct and 25KV air discharge

Operating temperature: 0° to 70° C

Maximum operating speed: 1200 rpm

- Dual Outputs:** Two outputs, A and B
- **Output A** generates 1800 square wave pulses per revolution with 50% ± 10% pulse on-off ratio.
 - **Output B** generates 3600 fixed size pulses per revolution: the output is normally high and goes low for 5microseconds then returns high for each pulse.

Output Waveform:

- **Pulse Interval Jitter:** ±15%
- **Pulse rise time:** 1 μsec (max)
- **Pulse fall time:** 2 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)

Electrical Connections

MS Pin	Wire Color	PSG Pin	Wire Color	Function
A	Blk	3	Blu	Common
B	Red	1	Brn	Supply voltage
C	—	—	—	not used
D	Wht	2	Wht	Output A
E	Grn	4	Blk	Output B
F	—	—	—	not used
—	plain	—	plain	Case Ground

Connector: MS3102A-14S-6P (6-pin)

Mating Connector: MS3106A-14S-6S

SPECIFICATIONS

Mechanical

- Weight:** 1.3 lb (600 gm) without accessories
- Shaft Loading:** Radial: 25 lb. (11.3 kg.) max.
Axial: 10 lb. (6.8 kg.) max.
- Bearing Life (L₁₀):** 70 x 10⁶/RPM = hours
- Materials:**
- Case: 1/4" Aluminum, anodized
 - Shaft: 303 Stainless steel

Modifications (please call for details)

M139: Enhanced Anti-Jitter feature that increases pulse output hysteresis to 7% of a revolution. 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 7% of a revolution then the encoder resets itself.

M142: Enhanced Anti-Jitter feature and a Turck PSG 4M-2/S90-S618 cable.

Accessories (please call for details)

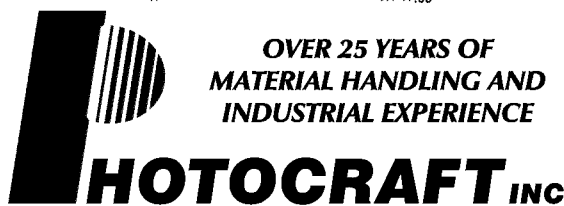
Measuring Wheels (MW-1-B):
12.00 ± .01 inch circumference (3.82" diameter) cast aluminum with .38" (9.6mm) wide urethane tire having a high coefficient of friction.

Yoke Assembly (Y-1): Aluminum yoke, steel clevis pin and 1/4-28 mounting bolt. Allows the encoder to pivot freely when fastened to a rigid beam.

Under-belt Mounting Assembly (MB-UB1): a counter-weight assembly that facilitates mounting the RH encoder under the conveyor belt (or roller).

Cable Assembly (C6-4-10 cf): 10 ft (3m) of 4 conductor, shielded cable with mating connector is included at no extra cost.

1. Other lengths are available.
2. CE marking requires Photocraft cable, and surge protection option if the cable exceeds 100' (30m) or leaves the building.



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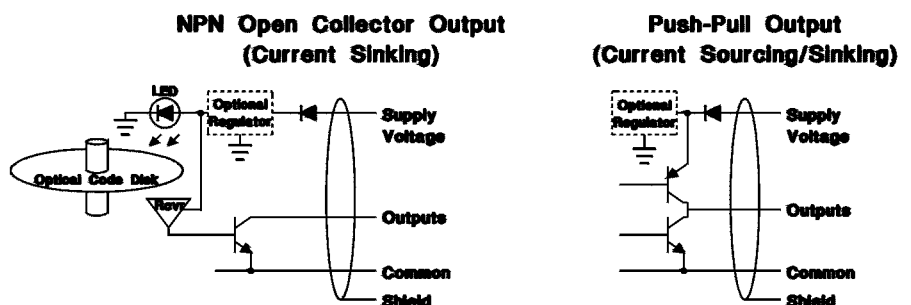


Figure 1 - Output Circuits