

R20-P240AJ

Series 20 Programmable Shaft Encoder

DESCRIPTION

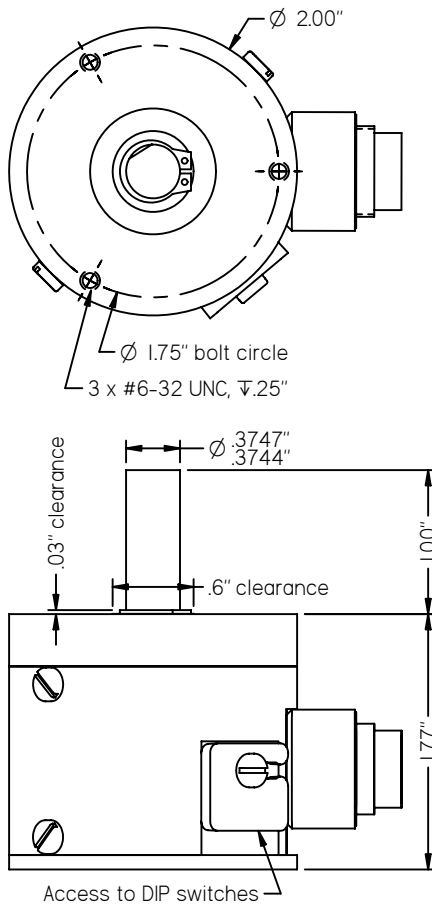
The R20-P240AJ shaft encoder converts shaft rotation into square wave output pulses to provide an accurate and reliable means of digitizing position, rate, or length of travel. The number of pulses per each revolution of the shaft are selectable by setting configuration switches. The R20 is intended to be shaft coupled using a flexible shaft coupling or other means to resolve shaft to shaft misalignment.

FEATURES

- Selectable Pulses/Revolution (up to 240ppr)
- ESD / Short Circuit / Reverse Voltage Protected
- Exclusive "Anti-jitter" Circuit for Conveyor Applications
- Up to 3/8" shaft diameter, optional double ended
- Attached cable, or 16mm or M12 connector

DIMENSIONS

(shown with 16mm connector, 3/8" diameter shaft)



OVER 35 YEARS OF MATERIAL HANDLING AND INDUSTRIAL EXPERIENCE

HOTOCRAFT INC

602 E. North Street **630-365-7148**
 Elburn, IL 60119, USA Fax: 630-365-7149
www.photocraftencoders.com

SPECIFICATIONS

Mechanical

Shaft Loading:

- Radial: 40 lbs. / 18.1 kg
- Axial: 30 lbs. / 13.6 kg

A flexible coupling is recommended.

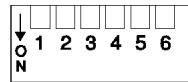
Bearing Life: 32 x 1,000,000/rpm = hours

Materials:

- Case: Aluminum, anodized
- Shaft: 303 Stainless steel
- Switch access door: plastic

Weight: 10 oz. (285 grams)

Configuration Switches



Pulses per Revolution Selection

1	2	3	4	5	6	9	2	3	4	5	6	30	2	3	4	5	6
1	□	□	□	□	□	9	□	□	□	□	□	30	□	□	□	□	□
2	■	□	□	□	□	10	■	□	□	□	□	36	■	□	□	□	□
3	■	■	□	□	□	12	□	□	□	□	□	40	■	■	□	□	□
4	■	■	■	□	□	15	■	□	□	□	□	48	■	■	■	□	□
5	■	■	■	■	□	16	■	■	□	□	□	60	■	■	■	■	□
6	■	■	■	■	■	18	■	■	■	□	□	80	■	■	■	■	■
7	■	■	■	■	■	20	■	■	■	■	□	120	■	■	■	■	■
8	■	■	■	■	■	24	□	□	□	□	□	240	■	■	■	■	■

Not Used

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

Outputs

Pulses per Revolution Output: Selectable by setting configuration switches 2 to 6. Output is "low" when initially powered.

Anti-jitter feature: Increases 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.

Electrical

Supply Voltages (+vdc): (specify when ordering)
 5 ± 5% vdc or 8 to 30 vdc

Supply Current: 50 ma max (no load)
 100 ma max (line driver)

Output Circuit: (specify when ordering)

Output voltage level is approximately the same as the input voltage level

Single Ended:

- 7273 open collector (30 VDC max, 50 mA max)
- 7272 Push-Pull (50 mA max source or sink)

Differential Line Driver:

- 7272 differential line driver (also with optional 5vdc output level)

Operating Temperature: 0° to 70° C

Maximum Operating Speed: 2,500 rpm

Electrical Connections

Single Ended Outputs:

Optional 6-Pin	Optional M12 4-pin	Function	Wire Color
1	3	Common	Black
2	1	+vdc	Red
4	4	Output A	White
3, 5, 6	2	not used	-

6-pin connector is Amphenol T3402000 or equivalent
 M12 4-pin is Turck FS4.4/18.25 or equivalent

Differential Line Driver Outputs:

Optional 8-Pin	Optional M12 4-pin	Function	Wire Color
1	4	Output +A	White
4	1	+vdc	Red
5	3	Common	Black
6	2	Output -A	Green
2, 3, 7, 8		not used	-

8-pin connector is Amphenol T3506000 or equivalent
 M12 4-pin is Turck FS4.4/18.25 or equivalent

Accessories (call or see our website)

- Adapters, Cables, Flexible Couplings, Measuring Wheels, Mounting Brackets

MODEL NUMBER

R20	P240AJ				
<u>Model Number</u>	<u>Program Name</u>	<u>Supply Voltage:</u>	<u>Output Circuit:</u>	<u>Cable/Connector:</u>	<u>Modification Number:</u>
leave blank for 3/8", A = 5/16", C = 1/4", M8 = 8mm	Call or see our website for information about other available programs for this encoder model.	5 = 5vdc, 8-30 = 8-30vdc	leave blank for 7272 Push/Pull, C=7273 open collector, D=7272 line driver, DL=7272 line driver with 5vdc output level	leave blank for attached cable, S=6 or 8 pin 16mm, S3=M12 connector	optional modification or special feature ID. Call or see our website.
					<u>Accessories:</u> optional accessories (call or see our website).

Example: R20C-P240AJ/8-30 - 1/4" shaft diameter, P240AJ program, 8-30vdc, push/pull output, attached 10' cable