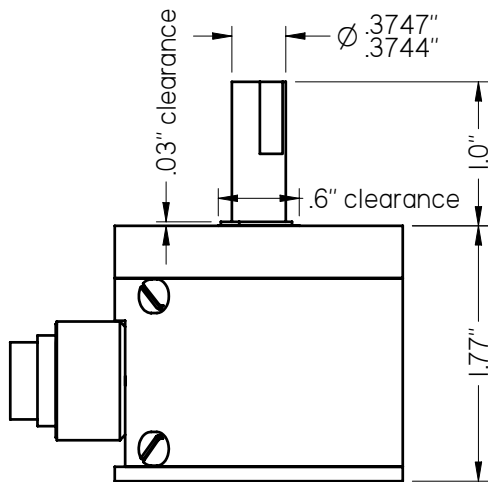
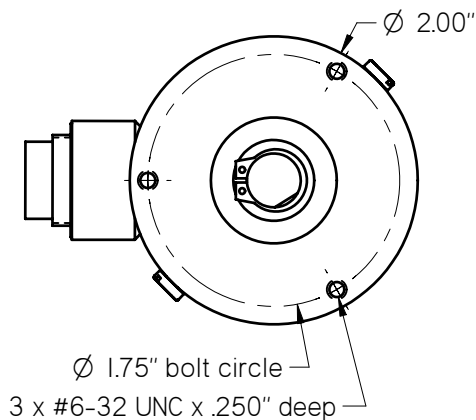


FEATURES

- Heavy Duty bearings
- Unbreakable code disk
- Size 20 housing
- Short circuit and ESD protected
- Hollow shaft model available - see Model HS20
- Double ended shaft available
- Up to 1200 pulses per revolution
- Attached cable, or 16mm or M12 connector
- Programmable model available - see Model R20-P

DIMENSIONS

(shown with optional 16mm connector)



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

Maximum Speed: 6,000 rpm
Shaft Loading:
 — Radial: 40 lbs. / 18.1 kg
 — Axial: 30 lbs. / 13.6 kg
Note: a flexible shaft coupling is recommended
Bearing Life: 32 x 1,000,000/rpm = hours
Materials:
 — Case: Aluminum, anodized
 — Shaft: 303 Stainless steel
Weight: 10 oz. (285 grams)

Electrical Connections

Single Ended Outputs:

Optional 6-pin	Optional M12 4-pin	Function	Wire Color
1	3	Common	Black
2	1	+vdc	Red
3	-	Output Z	Brown
4	4	Output A	White
5	2	Output B	Green
6	-	not used	-

6-pin connector is Amphenol T3402000 or equivalent
 M12 4-pin is Turck F54.4/18.25 or equivalent

Differential Line Driver Outputs:

Optional 8-Pin Connector	Function	Wire Color
1	Output +A	White
2	Output +B	Green
3	Output +Z	Yellow
4	Supply voltage	Red
5	Common	Black
6	Output -A	Blue or Green
7	Output -B	Brown
8	Output -Z	Orange

8-pin connector is Amphenol T3506000 or equivalent

Standard cable length is 10 ft / 3 meters.
 Other lengths are available.

Electrical

Supply Voltages: (specify when ordering)
 5 VDC or 8-30 VDC
Current: 50 mA max (no load)
 100 mA max (line driver)
Pulse Rate: 0 - 30 kHz
Pulses per Revolution: (specify when ordering)
 1 to 1200

Operating Temperature: 0° to 70° C
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)

Output Waveshape:

Square wave outputs A and B are 50/50 duty cycle nominal. Output Z (index output) is approximately the width of one cycle on outputs A or B. Output A leads B by 90° for clockwise rotation when viewed from shaft end.
 — Pulse symmetry: 180° ± 30%
 — Pulse interval jitter: 30% max
 — Quadrature: 90° ± 30% max
 — Phase jitter: 30% max

Anti-jitter: (single output models only)
 Increases the pulse hysteresis to 1/2 of a pulse width, eliminating the effects of mechanical vibration and possible false output pulses. For example a 10 pulse per revolution output has 18° hysteresis (i.e. 360° ÷ 10 × 1/2).

Accessories

See our website or contact us for more information about cables, flexible couplings, and measuring wheels.

MODEL NUMBER

R20									
Model Number									
Shaft Diameter: blank for 3/8", A = 5/16", C = 1/4", MB = 8mm									
Output Type: leave blank for single output on A, Q = quadrature outputs on A and B									
Index Output: leave blank for no index, Z = index output									
Pulses Per Revolution: a number from 1 to 1200									
Anti-jitter option: leave blank for no anti-jitter, AJ = anti-jitter option (single output models only)									
Supply Voltage: 5 or 8-30									
Output Circuit: leave blank for 7272 Push/Pull, C = 7273 open collector, D = 7272 line driver, DL = 7272 line driver with 5vdc output level									
Cable/Connector: leave blank for attached cable, S = 16mm connector, S3 = M12 connector									
Modification Number: optional modification or special feature ID. Call or see our website.									
Accessories: leave blank for no accessories. Call or see our website for more information.									

Example: **R20Q-1024/8-30DS** - 3/8" shaft, quadrature outputs, 1024 ppr, 8-30 vdc, 7272 differential line driver output, optional 16mm connector (8-pin)