

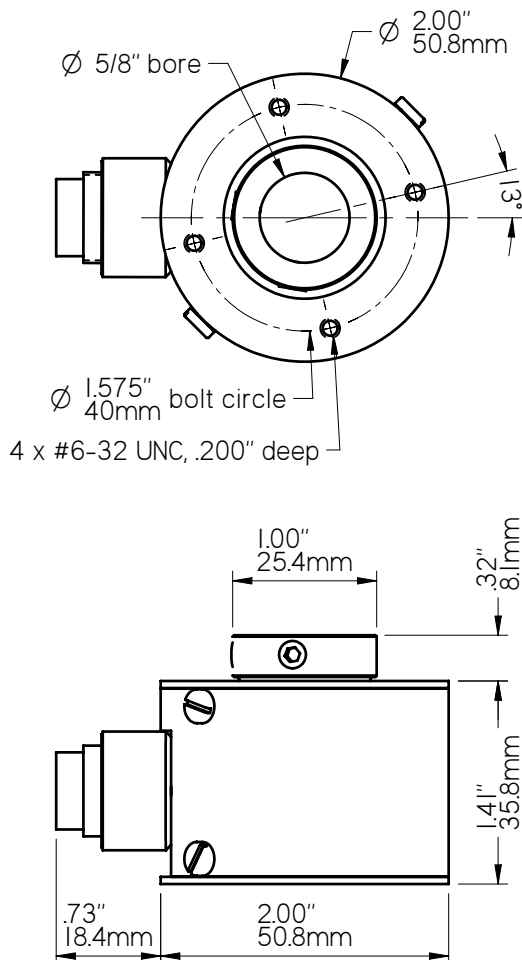
**FEATURES**

- Up to 5/8" or 16mm shaft bore diameter
- Heavy Duty bearings
- Unbreakable code disk
- Size 20 housing
- Short circuit and ESD protected
- Shaft model available - see Model R20
- Up to 1200 pulses per revolution
- Attached cable or optional connector
- CE compliant and RoHS available
- Programmable model available - see Model HS20-P

\* requires the use of a Photocraft or CE compliant cable

**DIMENSIONS**

(shown with optional connector, 5/8" shaft bore)



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**SPECIFICATIONS****Mechanical**

**Shaft Bore:** Any up to 5/8", 16mm diameter

**Maximum Speed:** 6,000 rpm

**Shaft Loading:**

— Radial: 30 lbs. / 13.6 kg

— Axial: 20 lbs. / 9.1 kg

*A flexible mounting bracket is recommended.*

**Bearing Life:** 44 x 1,000,000/rpm = hours

**Materials:**

— Case: Aluminum, anodized

— Shaft: 303 Stainless steel

**Weight:** 6.5 - 8.5 oz. (185 - 240 grams)

**Protection:** IP51 (IP64 available)

**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 FS4.4/18.25 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

\* connector is Amphenol T3506000 or equivalent

Standard cable length is 10 ft / 3 meters.

Other lengths are available.

**Electrical**

**Supply Voltages:** (specify when ordering)

— 5-26 VDC, or

— 8-30 VDC

**Current:** 50 mA max (no load)

100 mA max (line driver)

**Pulse Rate:** 0 - 30 kHz

**Pulses per Revolution:** 1 to 1200

(specify when ordering)

**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.

— 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 the possible dither that results

in false output pulses. For example a 10

pulse per revolution output would have 18°

hysteresis (i.e. 360° ÷ 10 × 1/2).

**Accessories**

See our website or contact us for more

information about Cables and Flexible

Mounting Bracket.

**MODEL NUMBER**

HS20	Model Number	Supply Voltage: 5-26 or 8-30	Output Circuit: leave blank for 7272 Push/Pull, C=7273 open collector, DH=7272 line driver, DL=7272 line driver with 5vdc output level	Cable/Connector: leave blank for attached 10' (3meter) cable, S=6 or 8 pin connector, S3=M12 4-pin 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.
	<b>Shaft Bore:</b> B - 3/8", .5 = 1/2", .625 = 5/8", M10 = 10mm, M12 = 12mm, M16 = 16mm others available <b>Output Type:</b> leave blank for single output on A, Q = quadrature outputs on A and B <b>Index Output:</b> leave blank for no index, Z = index output					
	<b>Pulses Per Revolution:</b> a number from 1 to 1200					
	<b>Anti-jitter option:</b> leave blank for no anti-jitter, AJ = anti-jitter option (single output models only)					

Example: **HS20.5Q-1024/8-30DHS** - 1/2" shaft bore, quadrature outputs, 1024 ppr, 8-30 vdc, 7272 differential line driver output, optional side connector (8-pin)