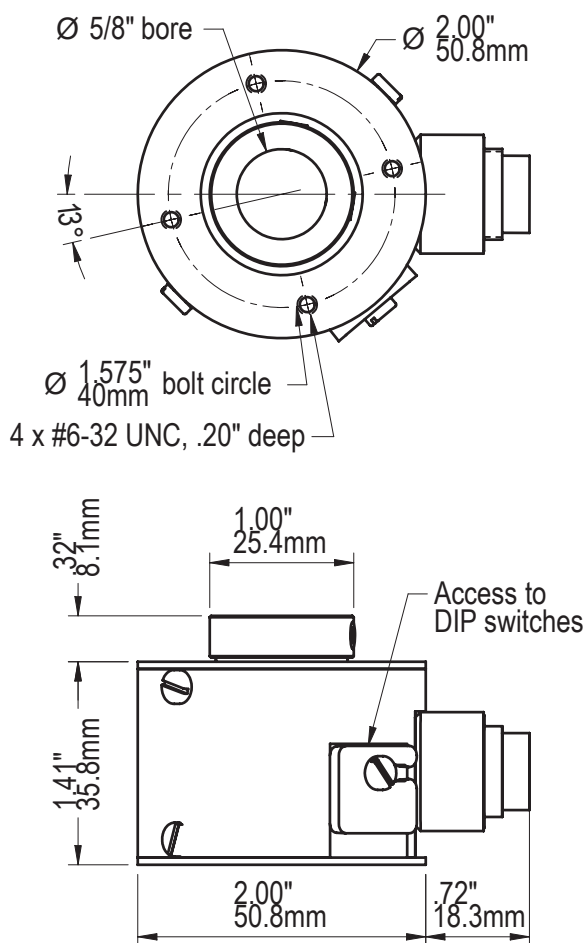


**FEATURES**

- DIP switch selectable features (see our website)
- 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

**DIMENSIONS**

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



**HOTOCRAFT Encoders**  
MATERIAL HANDLING AND  
INDUSTRIAL EXPERIENCE  
SINCE 1974

PO Box 25135 813-886-4000  
Tampa FL 33622-5135, USA 800-237-0946  
tco.com • photocraftencoders.com

**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)**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**

**Programmable Features:** The encoder is factory configured with a program that offers one or more of the following features. DIP switches are used to set program parameters.

(for more details, call or see our website)

- Selectable Pulses per revolution
- Quadrature (A/B) outputs
- Direction outputs
- Anti-jitter feature
- Enhanced anti-jitter feature
- Other enhanced features

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

— 5 VDC, or

— 8-30 VDC

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

100 mA max (line driver)

**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. A leads B by 90° for clockwise rotation when viewed from shaft collar end.

- Pulse symmetry: 180°±30%
- Pulse interval jitter: 30% max
- Quadrature: 90°±30% max
- Phase jitter: 30% max

**Accessories** See our website.**MODEL NUMBER**

<b>HS20</b>	<b>P</b>	<b>Supply Voltage: 5 or 8-30</b>	<b>Output Circuit:</b> leave blank for 7272 Push/Pull, C=7273 open collector, D=7272 line driver, DL=7272 line driver with 5vdc output level	<b>Modification Number:</b> optional modification or special feature ID. Call or see our website.	<b>Accessories:</b> leave blank for no accessories. Call or see our website for more information.
<b>Model Number</b>	<b>Program:</b> name of factory configured program. See program specific datasheet for feature descriptions and DIP switch settings.		<b>Cable/Connector:</b> leave blank for attached 10' (3meter) cable, S=6 or 8 pin connector, S3=M12 4-pin connector		
<b>Shaft Bore:</b> B = 3/8", .5 = 1/2", .625 = 5/8", M10 = 10mm, M12 = 12mm, M16 = 16mm other sizes available - consult factory	<b>P</b> = programmable encoder				

Example: **HS20.5-P64AJB/8-30DS** - 1/2" shaft bore, P64AJB program, 8-30 vdc, 7272 differential line driver output, optional side connector (8-pin)