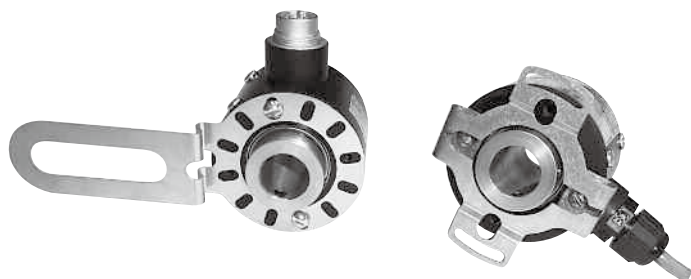


## SIZE 20 SERIES HS20 INCREMENTAL HOLLOW SHAFT ENCODER / Thru-Hub

Starting at US \$430.00 List Price  
(w/cable model - A ch. only)



Amphenol connector w/ L.D. model  
US \$485.00 List Price

### FEATURES



brand, Made in USA

- Size 20 Housing, heavy duty designed
- Up to 5/8" or 16mm, Thru-hub design
- Unbreakable code disk
- Short circuit and ESD protected
- Up to 1200 PPR
- Attached cable or optional Amphenol connector
- Super Linedriver 7272 compatible 5-26Vdc available
- NEMA12/IP54 enclosure

### SPECIFICATIONS

#### Mechanical

Shaft Bore	3/8", 1/2", 5/8", 16mm diameter
Maximum Speed	6000 RPM
Shaft Loading	Radial: 30 lbs. Axial: 20 lbs.
Materials	Case: Aluminum, anodized Shaft: 303 Stainless Steel
Weight	8.0 oz

#### Electrical

Supply Voltage	5-26 Vdc Push-Pull, Open Collector, Line Driver
Current	50mA Max. No Load 100mA Max. (Line Driver)
Pulse Rate	0-30 kHz
Pulses per Revolution	1 to 1200
Output Circuit	Single-ended <ul style="list-style-type: none"> <li>• 7273 open collector (30VDC max, 50 mA max)</li> <li>• 7272 Push-Pull (50 mA max source or sink)</li> </ul> Differential Line Driver <ul style="list-style-type: none"> <li>• 7272 differential line driver</li> </ul>
Output Wave	Square wave outputs A, B and Z are 50/50 duty cycle nominal output Z (index output) is approximately the width of one cycle on outputs A or B. <ul style="list-style-type: none"> <li>• Pulse symmetry: 180 ±30%</li> <li>• Pulse interval jitter: 30% max</li> <li>• Quadrature: 90° ±30% max</li> <li>• Phase jitter: 30% max</li> </ul>

#### Environmental

Temperature	Operating: 0 ~ 70°C Storage: -10 ~ 85°C
Operation Humidity	35-85% without condensation
Vibration	Max 10g (58 to 500 Hz)
Shock	50g (11 ms duration)
Enclosure	IP-54/NEMA 12

#### Electrical Connections

##### Single-ended Outputs:

6-Pin Connector*	Function	Wire Color
1	Common	Black
2	+vdc	Red
3	Output Z	Brown
4	Output A	White
5	Output B	Green
6	not used	—

\*connector is Amphenol T34020000 or equivalent

##### Differential Line Driver Outputs:

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
7	Output -B	Brown
8	Output -Z	Orange

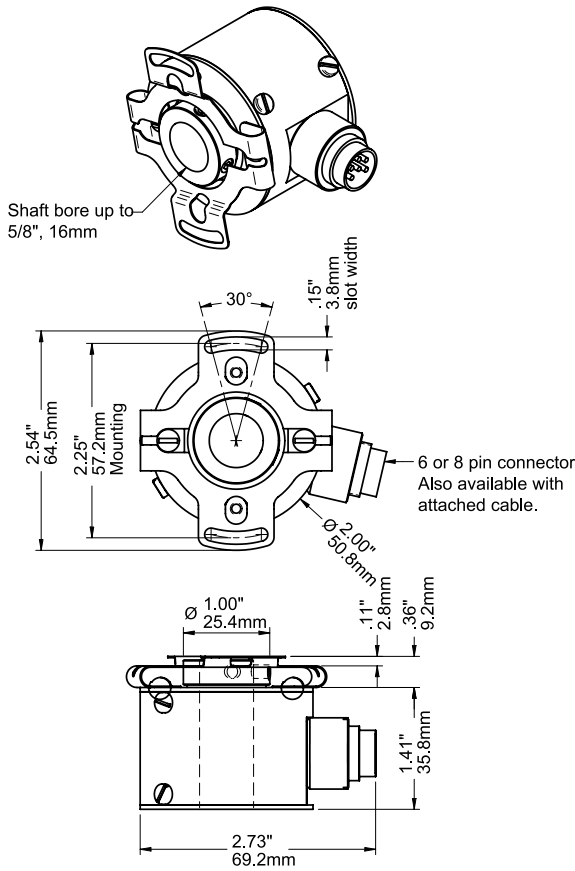
\*connector is Amphenol T34020000 or equivalent

Standard Cable length is 10 ft / 3 meters.

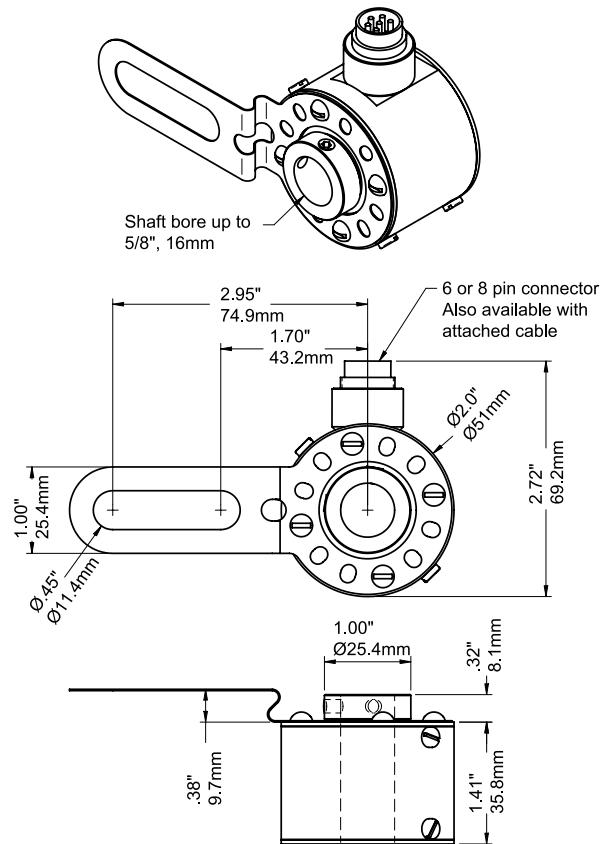
**SIZE 20 SERIES HS20**  
**INCREMENTAL HOLLOW SHAFT ENCODER / Thru-Hub**

**DIMENSIONS**

**Std. Flex-Mtg. Spring 2.25" B.C.**

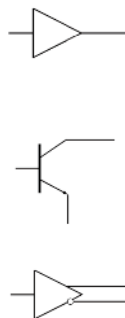


**C-Face Motor Mtg. 3.4" - 5.9" B.C.**

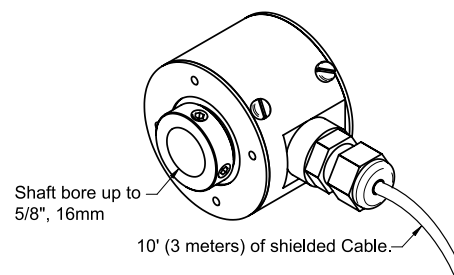


**Outputs**

- **Push-Pull (7272)** This general purpose output functions as a PNP transistor for applications requiring a current sourcing output. It functions as an NPN transistor with 3.3K pull-up for applications requiring a current sinking output. This output is TTL compatible when used with a 5vdc supply. Maximum source / sink current is 50 ma. per output.
- **7273 Open Collector (NPN)** For applications requiring an uncommitted output. The output voltage level can be pulled up with an external resistor to a maximum of 30vdc. Maximum sink current is 50ma. per output.
- **Differential Line Driver (7272)** An 7272 differential line driver that generates complimentary outputs: A / -A, B / -B, and Z / -Z as needed. The encoder must be operated at 5-26 vdc, input and output.



**Std. 10 ft Cable w/ Straight Plug Cap**



# Size 20 Series HS20 Hollow Shaft Encoder/Thru-Hub

Model	Hub I.D.	Channels	Resolution	Voltage/Output	Cable/Connector	Flex-Mtg. Spring
HS20	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> /	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### ORDERING INFORMATION

<b>HS20</b>	B = 3/8"	<b>Blank:</b> Sgl. Ended (A ch.)	100	1000	5-26: Push-Pull (7272)	<b>Blank:</b> 10 ft. Cable	<b>Blank:</b> Std. Flex-Mtg. (2) holes @ 2.25" B.C.
	.5 = 1/2"		250	1024			
	.625 = 5/8"	<b>Q:</b> Quadrature (A, B ch.)	360	1200	5-26C: Open Collector (7273)	<b>S:</b> 16mm Circular Conn. at side	<b>C:</b> C-face Motor Mtg. (1) slot hole @ 3.4" ~ 5.9" B.C.
	M8 = 8mm		500				
	M10 = 10mm		512				
	M12 = 12mm						
M14 = 14mm	<b>QZ:</b> Quadrature (A, B, Z ch. w/Index)			5-26D: Line Driver* (7272)			
M16 = 16mm							

### PRICING INFORMATION

MODEL	HUB I.D.	HUB I.D.	RESOLUTION	VOLTAGE/OUTPUT	CABLE/CONNECTOR	FLEX-MTG. SPRING	
<b>HS20</b> Base price \$370.00	B = 3/8"	<b>Blank: A ch. only</b> N/C	<b>50</b>	5-26: Push-Pull N/C	<b>Blank: 10 ft. Cable</b> N/C	<b>Blank: Std. Flex-Mtg.</b> (2) holes @ 2.25" B.C. N/C	
	.5 = 1/2"		<b>Thru</b>				N/C
	.625 = 5/8"	<b>Q: A, B ch.</b> Add \$20.00	<b>100</b>	5-26C: Open Collector Add \$25.00	<b>S: 16mm Circular</b> Conn. at side Add \$30.00	<b>C: C-face Motor Mtg.</b> (1) slot hole @ 3.4" ~ 5.9" B.C. Add \$20.00	
	M8 = 8mm		<b>360</b>				Add \$30.00
	M10 = 10mm						
	M12 = 12mm		<b>1200</b>				
	M14 = 14mm	<b>QZ: A, B, Z ch.</b> Add \$30.00					
	M16 = 16mm						
	N/C						

PART NUMBER	LIST PRICE	PART NUMBER	LIST PRICE
HS20M6QZ50/5-26D	\$425.00	HS20.625QZ360/5-26D	\$455.00
HS20M8Q1000/5-26C	\$445.00	HS20.625QZ100/5-26DS	\$455.00
HS20M10QZ1000/5-26DS	\$485.00	HS20.625QZ100/8-30	\$400.00
HS20BQZ100/5-26DS	\$455.00	HS20.625-500/8-30	\$400.00
HS20BQZ500/5-26DS	\$485.00	HS20.625QZ1000/526DS	\$485.00
HS20BQZ1000/5-26	\$430.00	HS20.625QZ1024/526DS	\$485.00
HS20BQZ1024/5-26DS	\$485.00	<b>Mating Connector w/ 10-20ft. Cable Assemblies</b>	
HS20.5QZ100/5-26DS	\$455.00	D6-5-10 (Sgl.Ended) Amphenol 6 pin mating conn. w/10ft. Cable (5 wires)	\$40.00
HS20.5QZ500/5-26DS	\$485.00	D6-6-20CF (Sgl.Ended) Amphenol 6 pin mating conn. w/20ft. Cable (6 wires)	\$80.00
HS20.5QZ1000/5-26DS	\$485.00	D8-8-10 (Linedriver) Amphenol 8 pin mating conn. w/10ft. Cable (8 wires)	\$50.00
HS20.5Q1024/5-26DC	\$465.00	D8-8-20 (Linedriver) Amphenol 8 pin mating conn. w/20ft. Cable (8 wires)	\$80.00
HS20M12Q1200/8-30DHS	\$495.00	<b>Mounting Bracket</b>	
HS20M8QZ1024/5-26DC	\$450.00	#MB-FB2	
HS20M10QZ1000/5-26DS	\$485.00	C-face Motor Mtg. Bracket	\$20.00
HS20.5QZ1024/5-26DS	\$485.00		
HS20.625QZ360/5D	\$455.00		

Standard Stock Items: Shipped immediately. Non Stock Items: 2-3 weeks Lead Time