

D60197

Sealed Hollow Shaft Encoder

Typical applications:

- Motor drive speed feedback
- Easily retrofitted
- PLC and electronic counter inputs
- Speed, draw and length controls
- Winding and roll monitoring
- Finishing equipment, extruders, test equipment, and hoists.
- Precision, economical replacement for DC tach when used with F/V converter.
- Drivecon's standard for industrial use.

Features:

- No bracket or flange adapter required.
- Direct shaft mounting.
- Tethered flexible mount eliminates shaft alignment and bearing load.
- Unbreakable metal disk for reliability.
- Overvoltage, reverse voltage, and short circuit protection.
- Insulated from motor housing and shaft temperatures to 125°C.
- Electrically isolated from machine and motor noise and motor shaft currents.
- Narrow 1 1/2" width.
- Easy to retrofit on existing motors.

Mechanical Specifications:

Weight: 16 oz.

Starting torque at 25°C: 5.0 in-oz

Running torque at 25°C: 4.5 in-oz

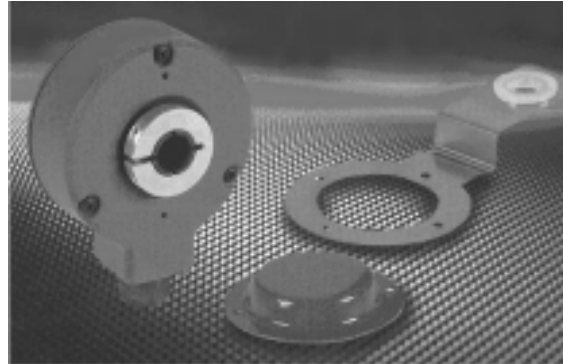
Moment of Inertia: Up to 5/8" bore: 7.9×10^{-4} in-oz sec.², Over 5/8" bore: 25.6×10^{-4} in-oz sec.².

Shaft Speed: Up to 5/8" bore: 3600RPM; Over 5/8" bore: 1800RPM.

Hub Dia. Tolerance: +0.0003"/0.0005" (+.008/.013 mm)

Mating shaft length: 1.25" (32mm) min. recommended 2.0" (50.8mm) max. inside cover. Solid shaft preferred; keyway allowed; flatted shaft should not be used.

Mating shaft runout: $\pm 0.025"$ ($\pm 0.63\text{mm}$)



Mating shaft endplay: $\pm 0.050"$ ($\pm 1.27\text{mm}$)

Bearing Life: 80K hours @ 3600RPM; 128K hours @ 1800RPM.

Electrical Specifications:

Code: Incremental

Pulses per revolution: 1 to 2048

Phase sensing: A leads B for CW rotation viewing split collar (shaft) clamp.

Quadrature phasing: $90^\circ \pm 22.5^\circ$

Symmetry: $180^\circ \pm 18^\circ$

Index: $180^\circ \pm 18^\circ$ (gated with B channel low) physical index aligned with marks on body)

Input Power: Open collector: 5 to 26 VDC at 100 mA max.; Push-pull and differential line driver: 5 to 26 VDC at 100 mA max.

Output Signals: Open collector: 30 VDC max., 40 mA sink at 0.5 VDC max.; push-pull and line driver: 40 mA sink/source.

Frequency Response: 100 kHz data and index.

Noise immunity: Tested to IEC801 level 3 for ESD, RFI, and electrical transients.

Environmental

Operating temperature: -40° to $+70^\circ\text{C}$ (std. temp. models); 0 to $+100^\circ\text{C}$ (high temp. models); derate $5^\circ\text{C}/1000$ RPM above 1800 RPM.

Storage temperature: -40° to $+90^\circ\text{C}$.

Shock: 50 G's at 11 msec duration.

Vibration: 2.5 G's at 5 to 2000 Hz.

Relative humidity: 98% non-condensing.

Enclosure Rating: NEMA4 / IP66

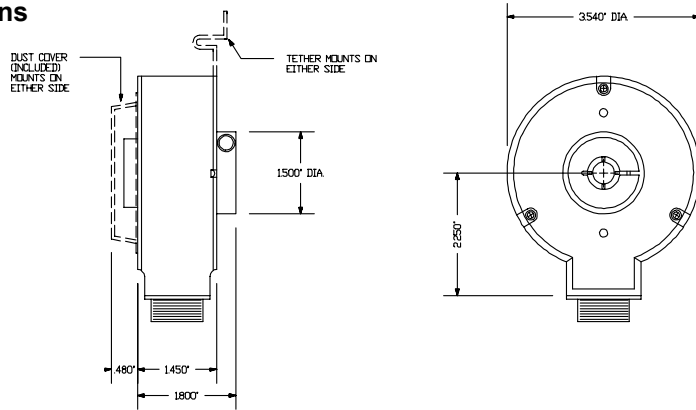


820 Lakeside Drive - Gurnee, IL 60031
Ph: 847-855-9150 Fax: 847-855-9650
800-374-8266

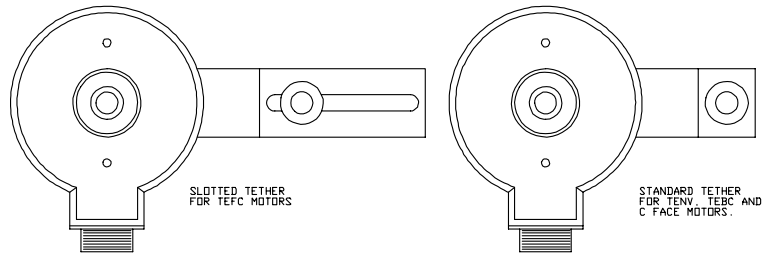
E-mail: drive.sales@drivecon.com
www.drivecon.com

Drive Accessories

Overall Dimensions



Tether Mounting Options



Electrical Connections

Code 1: Model	Code 2: PPR	Code 3: Bore Size	Code 4: Mounting	Code 5: Format	Code 5: Output	Code 7: Termination
D60197-	□ □ □ □	□	□	□	□	□
Heavy-duty, sealed hollowshaft encoder.	_0001 _0500 _0003 _0512 _0010 _0600 _0012 _0900 _0050 _1000 _0060 _1024 _0100 _1200 _0120 _1270 _0240 _1500 _0250 _1800 _0300 _2000 _0360 _2048	0 6mm 1 1/4" 2 5/16" 3 8mm 4 3/8" 5 10mm 6 12mm 7 1/2" 8 5/8" 9 15mm A 16mm B 19mm C 3/4" D 20mm E 7/8" F 24mm G 1" H 1-1/8"	0: None - customer supplied. 1: Clearance hole for 3/8" bolt on 5.88" dia. bolt circle (to fit 4-1/2" NEMA C-face) 2: Clearance hole for 1/2" bolt on 7.25" dia. bolt circle (to fit 8-1/2" NEMA C face) 3: Slotted hole for bolt on 2.5" to 4.0" radius (to fit standard AC motor fan cover slots)	0: single ended, unidirectional (A) 1: single ended, bidirectional (AB) 2: single ended, bidirectional with index (ABZ) 3: differential, bidirectional (AA BB) Available when Code 7 is 2, 3 or 7 - G: 4: differential, bidirectional with index (AA BB ZZ)	0: 5-26V in, 5-26V open collector out. 1: 5-26V in, 5-26V open collector out w/ 2.2k ohm pullups. 2: 5-26V in, 5-26V push-pull out. Available when Code 5 is 3 or 4: 3: 5-26V in, 5V line driver out. 4: 5-26V in, 5-26V line driver out. A: same as '3' with high temp. to 100°C. B: same as '4' with high temp. to 100°C.	0: 6 pin connector 1: 7 pin connector 2: 10 pin connector 3: 12 pin connector 5: 6 pin connector, plus mating connector 6: 7 pin connector, plus mating connector. 7: 10 pin connector, plus mating connector. 8: 12 pin connector, plus mating connector. A 18" (.5m) cable B 36" (1m) cable C 72" (2m) cable D 10' (3m) cable F 13" (.3m) cable with 10 pin connector plus mating connector. G 13" (.3m) cable.