The H20 is an extremely rugged encoder designed to economically fill the resolution range up to 4096 cycles per turn. This compact unit features a shock resistant disc, heavy duty bearings, and EMI shielding. The H20 conforms to NEMA 4 and 13 requirements. The H20 is also available in a hub shaft style with a flexmount (inset) for easy mounting directly to small motors. Typical applications of the H20 include machine control, process control, agricultural machinery, textile equipment, robotics, food processing, and metering.

Special Models of the H20 Incremental Encoder are available with one or more of the following certifications. Consult factory for details.

- Class II Group E, F & G
- Class II, Div 2, Group F & G
- Class I, Zone 0, Group IIC
- U.S. Standards Class I, Group A,B,C & D; Class II Group E, F & G
- Canadian Standards Class I, Zone 0, Group IIC
- CENELEC II 3 G Ex nA IIB T4 Gc
- CENELEC II 3 G Ex nA IIB T3 Gc
- CENELEC Class II Group E, F & G
- U.S. Standards Class I, Group A,B,C & D; Class II Group E, F & G

**Mechanical Specifications**

- **Shaft Diameter:** 1/4” thru 3/8” and metric versions. Hollow shaft, hub shaft or thru-shaft versions available.
- **Flat On Shaft:** 0.75 x 0.03 deep
- **Shaft Loading:** up to 40 lbs. axial and 40 lbs. radial
- **Shaft Runout:** .001 T.I.R. maximum
- **Starting Torque at 25°C:** 1.0 in-oz maximum without shaft seal; 2.5 in-oz maximum with shaft seal; 4.0 in-oz thru-shaft
- **Bearings:** 52100 bearing steel
- **Shaft material:** 303 stainless steel
- **Cover:** Die cast aluminum with iridite finish; stainless steel (special feature)
- **Cover:** Die cast aluminum with protective finish (For MS or CS terminations), otherwise drawn aluminum with protective finish; stainless steel (special feature)
- **Bearings Life:** 1.5 x 10^6 revs at rated load (10,000 hrs at 2500 RPM)
- **Maximum RPM:** 8,000
- **Moment of Inertia:** 2.0 x 10^-6 oz-in-sec^2
- **Weight:** 9 oz. typical

**Electrical Specifications**

- **Code:** Incremental
- **Output Format:** 2 channels in quadrature, incremental
- **Voltage/Output:**
  - **28V/V:** Line Driver, 5–28 VDC in, Vout = Vin
  - **28V/5:** Line Driver, 5–28 VDC in, Vout = 5 VDC
  - **28V/C:** Open Collector, 5–28 VDC in, OCout
- **Protection Level:** reverse, overvoltage and overload short circuit (see note 5)
- **Frequency Response:** 1024 cplt; 400 KHz with interpolation option (see note 7)
- **Output Terminations:**
  - **TERMINATION LOCATION:**
    - **SIDE:** E = End
    - **SIDE:** S = Side
- **Special Features:**
  - **S = Special features specified on purchase order (Consult factory)"
The connector style will determine pinouts. For example, an encoder with ABC channels.