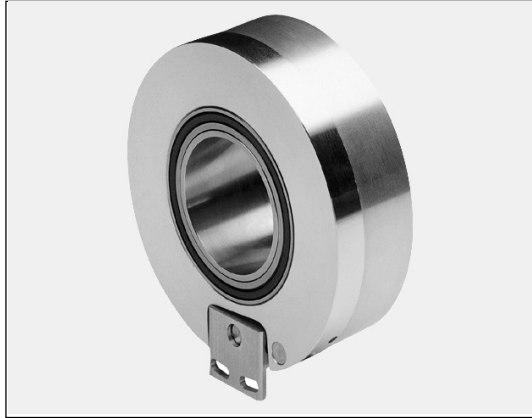
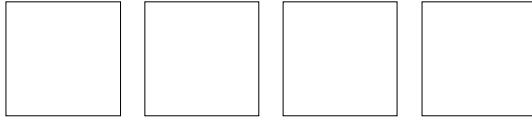


## Incremental-Encoder IH-120



- **Hollow Shaft Encoder for Direct Coupling to any Drive Shaft (I.D. = 27 ... 55 mm)**
- **Number of Pulses per Revolution Up To 10 000**

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### Electrical Data

|                                |  |
|--------------------------------|--|
| Supply Voltage.....            | 11-27 V DC   |
| 5 V DC .....                   | Upon Request   |
| Output (11-27 V).....          | Push-Pull  |
| Maximum Current.....           | max. 20 mA   |
| Incremental Signal.....        | A, A neg., B, B neg.   |
| Marker Pulse .....             | Z, Z neg., 1 pulse per revolution  |
| Maximum Output Frequency ..... | 160 kHz  |
| Output (5 V).....              | Line Driver  |
| Maximum Current.....           | max. 20 mA   |
| Incremental Signal.....        | A, A neg., B, B neg.   |
| Marker Pulse .....             | Z, Z neg., 1 pulse per revolution  |
| Maximum Output Frequency ..... | 300 kHz  |
| Tolerance (at 20 kHz)          |  |
| Phase Shift.....               | ±10°   |
| Pulse Width.....               | ±10°   |
| Tolerance (at 100 kHz)         |  |
| Phase Shift.....               | ±30°   |
| Pulse Width.....               | ±30°   |
| Pulses per Revolution .....    | 1 to 10 000  |
| Option .....                   | Sinusoidal Signal, 160 kHz (-3dB), voltage or current source<br>5 or 10 times the base PPR is possible. (i.e. 50000 or 100000 PPR) |

### Environmental Data

|   |   |
|---|---|
| Electromagnetic compatibility (EMC) ..... | EN 61000-4-2 (IEC-801-2) / EN 61000-4-4 (IEC-801-4) |
| Operating Temperature.....                | 0° to 80°C (32° F to 176° F)                        |
| Extended Temperature (Optional).....      | -30° to +80°C (-22° to 176°F)                       |
| Relative Humidity .....                   | 98 % (non condensing)                               |

### Mechanical Data

|                                    |                                     |
|------------------------------------|-------------------------------------|
| Maximum Rotational Speed.....      | 4000 RPM                            |
| Weight.....                        | 1.2 kg (2.6 lb.)                    |
| Maximum Angular Acceleration.....  | $\leq 10^4 \text{ rad/s}^2$         |
| Momentum of Inertia.....           | $400 \times 10^{-6} \text{ kg m}^2$ |
| Startup Momentum 20°C (68° F)..... | 0,09 Ncm                            |
| Vibration (50-2000 Hz Sinusoidal)  |                                     |
| DIN IEC 68-2-6.....                | $\leq 100 \text{ m/s}^2$ (10g)      |
| Shock (11ms) DIN IEC 68-2-27.....  | $\leq 1000 \text{ m/s}^2$ (100g)    |
| * Standard Connector.....          | radial cable (pigtail)              |

\* Different Cable Lengths on Request

### Dimensional Drawing

