

Incremental encoders

Blind hollow shaft $\varnothing 16$ mm

300...2500 pulses per revolution

HOG 11 DNV



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Features

- DNV approval
- Suitable for offshore, salt water firm
- High protection IP 67
- TTL output driver for cable length up to 550 m
- Very high resistance to shock and vibrations
- Hybrid bearing for extended service life
- Large terminal box, turn by 180° or axial terminal cover

Technical data - electrical ratings

| | |
|-----------------------|---|
| Voltage supply | 9...30 VDC 5 VDC ± 5 % |
| Consumption w/o load | ≤ 100 mA |
| Pulses per revolution | 300...2500 |
| Phase shift | $90^\circ \pm 20^\circ$ |
| Duty cycle | 30...70 % |
| Reference signal | Zero pulse, width 90° |
| Sensing method | Optical |
| Output frequency | ≤ 120 kHz |
| Output signals | K1, K2, K0 + inverted |
| Output stages | HTL-P (power linedriver) TTL/RS422 |
| Transmission length | ≤ 350 m at 100 kHz (HTL-P) ≤ 550 m at 100 kHz (TTL) |
| Interference immunity | EN 61000-6-2 |
| Emitted interference | EN 61000-6-3 |
| Approvals | CE, UL approval / E256710, DNV approval |
| Location classes DNV | Temperature: D Humidity: B Vibration: B EMC: B Enclosure: C |

Technical data - mechanical design

| | |
|-------------------------|--|
| Size (flange) | $\varnothing 105$ mm |
| Shaft type | $\varnothing 16$ mm (blind hollow shaft) |
| Admitted shaft load | ≤ 250 N axial ≤ 400 N radial |
| Protection DIN EN 60529 | IP 67 |
| Operating speed | ≤ 6000 rpm (mechanical) |
| Operating torque typ. | 6 Ncm |
| Rotor moment of inertia | 340 gcm ² |
| Materials | Housing: aluminium die-cast Shaft: stainless steel |
| Operating temperature | $-40...+100$ °C |
| Resistance | IEC 60068-2-6 Vibration 20 g, 10-2000 Hz IEC 60068-2-27 Shock 300 g, 6 ms |
| Corrosion protection | IEC 60068-2-52 Salt mist for ambient conditions C5-M (CX) according to ISO 12944-2 |
| Connection | Terminal box |
| Weight approx. | 1.6 kg |

Subject to modification in technic and design. Errors and omissions excepted.

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Blind hollow shaft ø16 mm

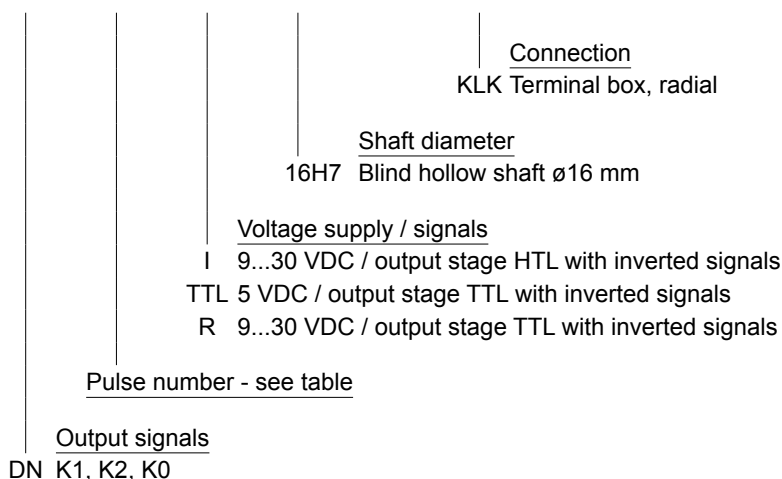
300...2500 pulses per revolution

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Part number

Incremental encoder

HOG11 DN 16H7 SR KLK ERD (DNV)



Pulse number

| | | | |
|-----|------|------|------|
| 300 | 512 | 1024 | 2048 |
| 500 | 1000 | 1200 | 2500 |

Other pulse numbers on request.

Accessories

Connectors and cables

HEK 8 Sensor cable for encoders

Mounting accessories

| | |
|----------|--|
| 11043628 | Torque arm M6, length 67-70 mm |
| 11004078 | Torque arm M6, length 120-130 mm (shortenable ≥71 mm) |
| 11002915 | Torque arm M6, length 425-460 mm (shortenable ≥131 mm) |
| 11054917 | Torque arm M6 insulated, length 67-70 mm |
| 11072795 | Torque arm M6 insulated, length 120-130 mm (shortenable ≥71 mm) |
| 11082677 | Torque arm M6 insulated, length 425-460 mm (shortenable ≥131 mm) |
| 11077197 | Mounting kit for torque arm size M6 and earthing strap |
| 11077087 | Mounting and dismantling set |

Diagnostic accessories

| | |
|----------|---|
| 11075858 | Analyzer for encoders HENQ 1100 |
| 11075880 | Analyzer for encoders HENQ 1100 with a power pack |

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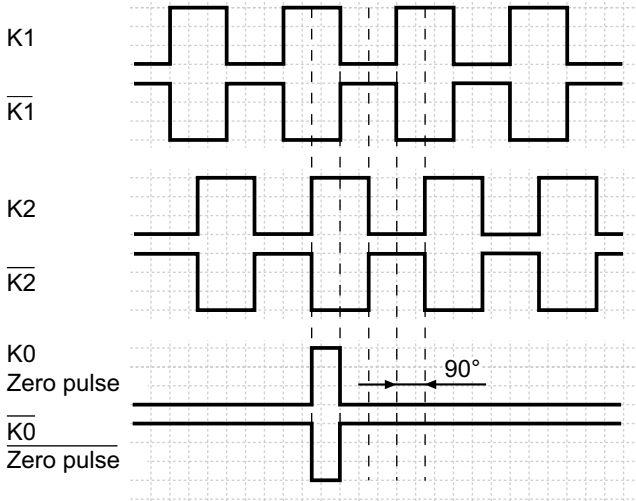
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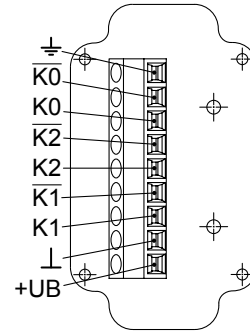
Output signals

At positive rotating direction



Terminal assignment

View A - Connecting terminal terminal box



Terminal significance

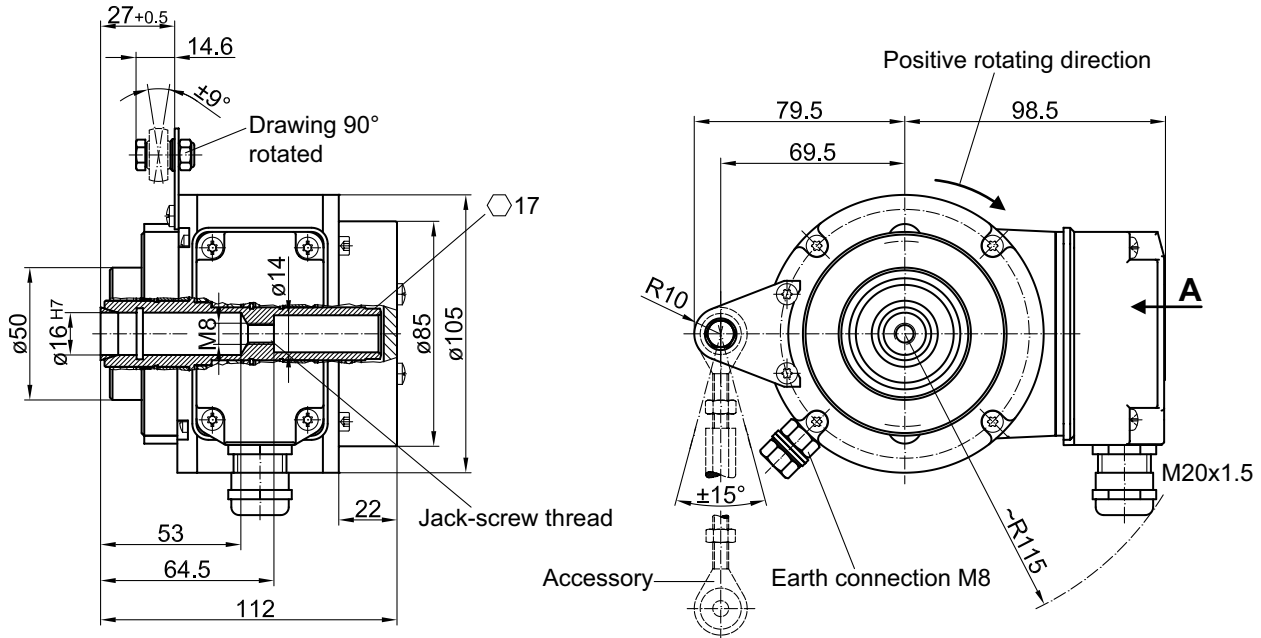
| | |
|-----------------|---|
| +UB | Voltage supply (for the device) |
| ⊥; ⚡; GND; 0 V | Ground (for the signals) |
| ⊕; ⚡ | Earth ground (housing) |
| K1; A; A+ | Output signal channel 1 |
| K1̄; Ā; A- | Output signal channel 1 inverted |
| K2; B; B+ | Output signal channel 2 (offset by 90° to channel 1) |
| K2̄; B̄; B- | Output signal channel 2 (offset by 90° to channel 1) inverted |
| K0; C; R; R+ | Zero pulse (reference signal) |
| K0̄; C̄; R̄; R- | Zero pulse (reference signal) inverted |
| dnu | Do not use |

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Dimensions



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