

HOG 11 - DNV GL

Blind hollow shaft $\varnothing 16$ mm

300...2500 pulses per revolution

Overview

- Approval DNV GL
- Suitable for offshore, salt water firm
- High protection IP 67
- TTL output driver for cable length up to 550 m
- Hybrid bearing for extended service life
- Earthing brush for capacitive shaft currents
- Large terminal box, turn by 180° or axial terminal cover



Technical data

Technical data - electrical ratings

Voltage supply	9...30 VDC 5 VDC $\pm 5\%$
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
Approval	CE UL approval / E217823 DNV GL
Location classes DNV GL	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 EN 60529	IP 67
Operating speed	≤ 6000 rpm (mechanical)
Operating torque typ.	6 Ncm
Rotor moment of inertia	340 gcm ²
Material	Housing: aluminium die-cast Shaft: stainless steel
Operating temperature	$-40...+100^\circ\text{C}$
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 CX (C5-M) according to ISO 12944-2
Connection	Terminal box
Weight approx.	1.6 kg

Terminal assignment

View A (see dimension)

Connecting terminal terminal box, radial



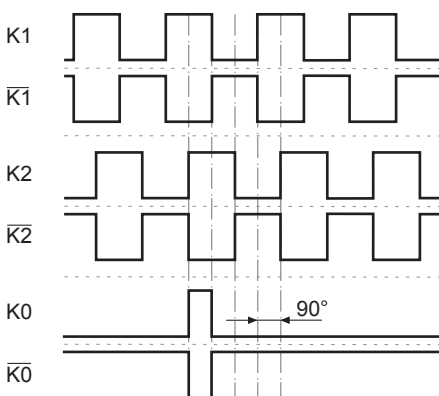
Terminal significance

+UB	Voltage supply
0V (L)	Ground
⊥	Earth ground (housing)
K1	Output signal channel 1
$\overline{K1}$	Output signal channel 1 inverted
K2	Output signal channel 2 (offset by 90° to channel 1)
$\overline{K2}$	Output signal channel 2 inverted
K0	Zero pulse (reference signal)
$\overline{K0}$	Zero pulse inverted

Output signals

HTL/TTL

At positive rotating direction (see dimension)

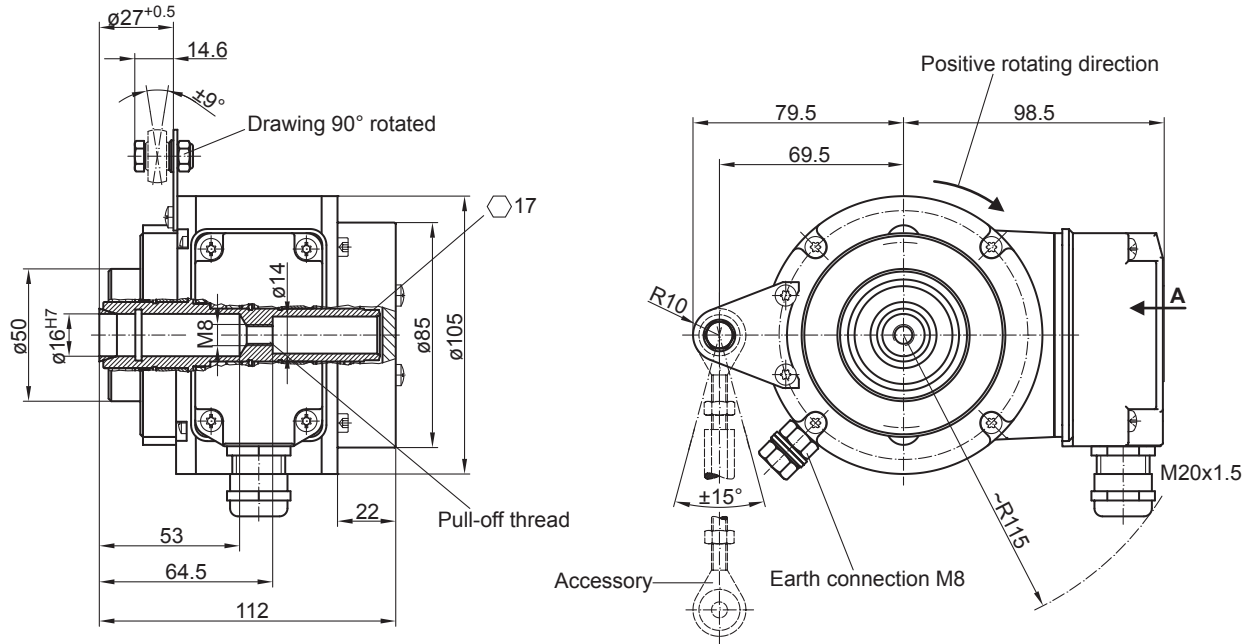


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Dimensions



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Ordering reference

	HOG11	DN	####	###	16H7	SR	KLK	ERD	(DNV)
Product	Incremental encoder								
	HOG11								
Output signals	K1, K2, K0								
		DN							
Pulse number⁽¹⁾									
300			300						
500			500						
512			512						
1000			1000						
1024			1024						
1200			1200						
2048			2048						
2500			2500						
Voltage supply / output stage	9...30 VDC / output stage HTL with inverted signals								
						I			
	5 VDC / output stage TTL with inverted signals								
						TTL			
	9...30 VDC / output stage TTL with inverted signals								
						R			
Shaft diameter	Blind hollow shaft $\varnothing 16$ mm								
					16H7				
Sealing system	Damp protection								
						SR			
Connection	Terminal box, radial								
							KLK		
Earthing	With earthing brushes								
								ERD	
Approval	DNV-GL approval								
									(DNV)

(1) Other pulse numbers on request.

Accessories
Mounting accessories

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

Connectors and cables

Sensor cable for encoders HEK 8

Diagnostic accessories

11075858	Analyzer for encoders HENQ 1100
11075880	Analyzer for encoders HENQ 1100 B