

Incremental encoders

Through hollow shaft $\varnothing 16$ to $\varnothing 36$ mm

1024...3072 pulses per revolution

HOG 131



HOG 131

Technical data - electrical ratings

Voltage supply	9...30 VDC 5 VDC ± 5 % 9...26 VDC
Consumption w/o load	≤ 100 mA
Pulses per revolution	1024...3072
Phase shift	$90^\circ \pm 20^\circ$
Scan ratio	40...60 %
Reference signal	Zero pulse, width 90°
Sensing method	Optical
Output frequency	≤ 120 kHz
Output signals	K1, K2, K0 + inverted
Output stages	HTL TTL/RS422
Interference immunity	EN 61000-6-2
Emitted interference	EN 61000-6-3
Approvals	CE, UL approval / E256710

Features

- Through hollow shaft $\varnothing 16$...36 mm
- Optical sensing method
- Shaft especially sealed for offshore applications
- Housing with special surface protection
- Hybrid bearing for extended lifetime
- Integrated lightning protection gap between encoder shaft and housing
- Output stage HTL or TTL
- Output stage TTL with regulator UB 9...30 VDC
- Big terminal box, turn by 180°

Technical data - mechanical design

Size (flange)	$\varnothing 130$ mm
Shaft type	$\varnothing 16$...36 mm (through hollow shaft)
Admitted shaft load	≤ 300 N axial ≤ 500 N radial
Protection DIN EN 60529	IP 56
Operating speed	≤ 6000 rpm (mechanical)
Operating torque typ.	15 Ncm
Rotor moment of inertia	4.9 kgcm ² ($\varnothing 32$)
Materials	Housing: aluminium alloy Shaft: stainless steel
Operating temperature	-40 ... $+100$ °C
Resistance	IEC 60068-2-6 Vibration 10 g, 10-2000 Hz IEC 60068-2-27 Shock 200 g, 6 ms
Corrosion protection	IEC 60068-2-52 Salt mist Complies to ISO 12944-5:1998 Protective paint systems (C5M)
Explosion protection	II 3 G Ex nA IIC T4 Gc (gas) II 3 D Ex tc IIIB T135°C Dc (dust)
Connection	Terminal box
Weight approx.	4 kg

Incremental encoders

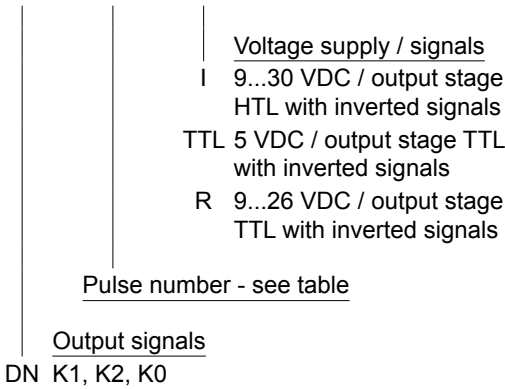
Through hollow shaft ø16 to ø36 mm
1024...3072 pulses per revolution

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Part number

Incremental encoder

HOG 131 **DN**



Pulse number

1024 | 2048 | 3072

Other pulse numbers on request.

Accessories

Connectors and cables

HEK 8 Sensor cable for encoders

Diagnostic accessories

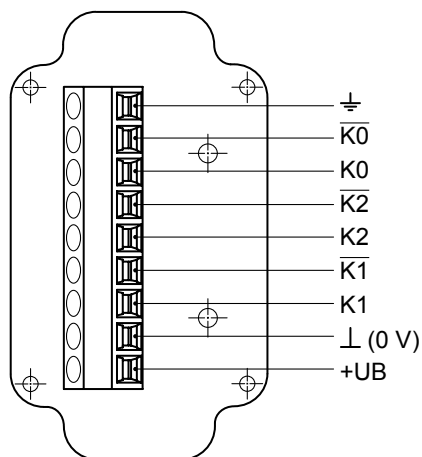
HENQ 1100 Analyzer for encoders

1024...3072 pulses per revolution

Output signals

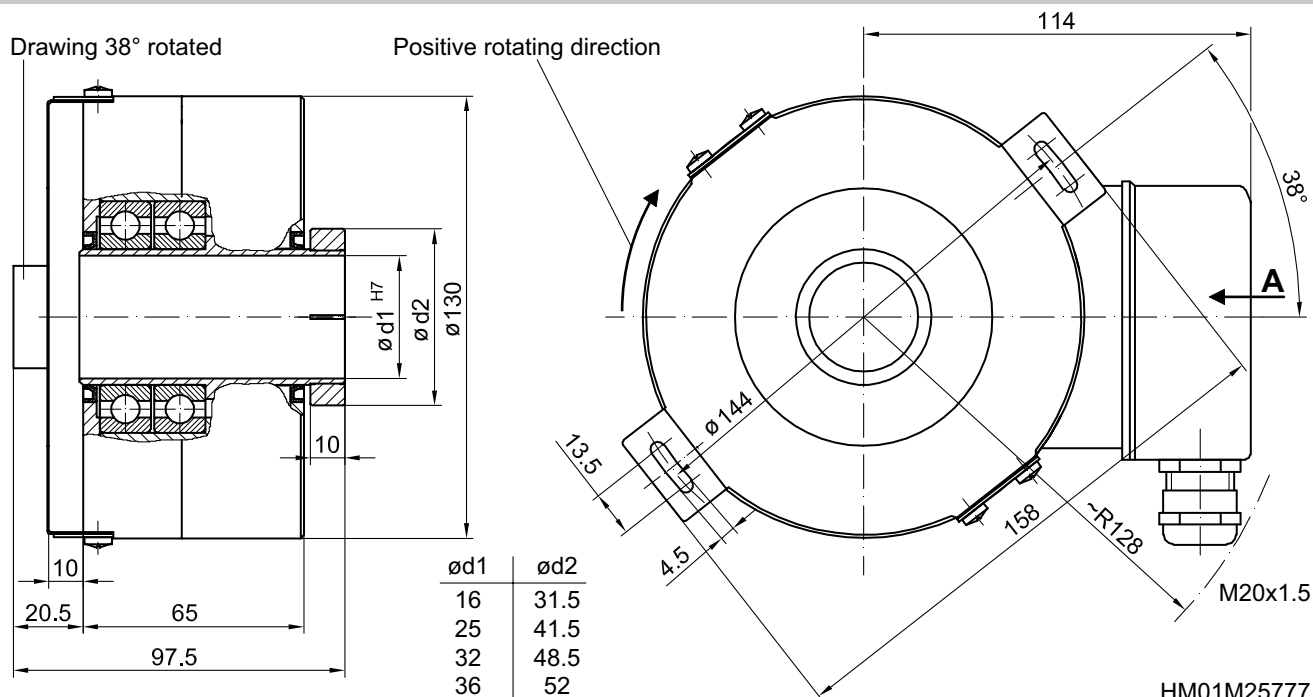
The diagram shows the timing of signals K1, $\overline{K1}$, K2, $\overline{K2}$, K0, and $\overline{K0}$. K0 and $\overline{K0}$ are zero pulses. A 90-degree phase shift is indicated between K0 and $\overline{K0}$.

View A - Connecting terminal in terminal box



Drawing 38° rotated

Positive rotating direction



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