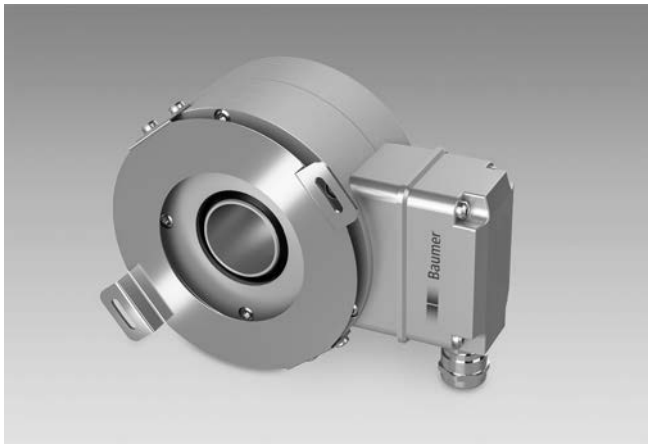
Incremental encoders

Through hollow shaft ø16...36 mm

1024...3072 pulses per revolution

HOG 131



HOG 131

Features

- **Through hollow shaft ø16...36 mm**
- **Optical sensing method**
- **Shaft especially sealed for offshore applications**
- **Housing with special surface protection**
- **Hybrid bearing for extended service life**
- **Integrated lightning protection gap between encoder shaft and housing**
- **Output stage HTL or TTL**
- **Output stage TTL with regulator UB 9...30 VDC**
- **Large terminal box, turn by 180°**

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° ±20°
Duty cycle	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

Technical data - mechanical design

Size (flange)	ø130 mm
Shaft type	ø16...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 kgcm² (ø32)
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 for ambient conditions CX (C5-M) according to ISO 12944-2
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

HOG 131

Part number

Incremental encoder

HOG131 | **DN** | | | | | | |

Shaft diameter
- 16H7 Through hollow shaft ø16 mm
- 25H7 Through hollow shaft ø25 mm
- 32H7 Through hollow shaft ø32 mm
- 36H7 Through hollow shaft ø36 mm

Voltage supply / signals
- I 9...30 VDC / output stage HTL with inverted signals
- TTL 5 VDC / output stage TTL with inverted signals
- R 9...26 VDC / output stage TTL with inverted signals

Pulse number - see table

Output signals
- DN K1, K2, K0

Pulse number

1024	2048	3072

Other pulse numbers on request.

Accessories

Connectors and cables

HEK 8	Sensor cable for encoders

Diagnostic accessories

11075858	Analyzer for encoders HENQ 1100

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1024...3072 pulses per revolution

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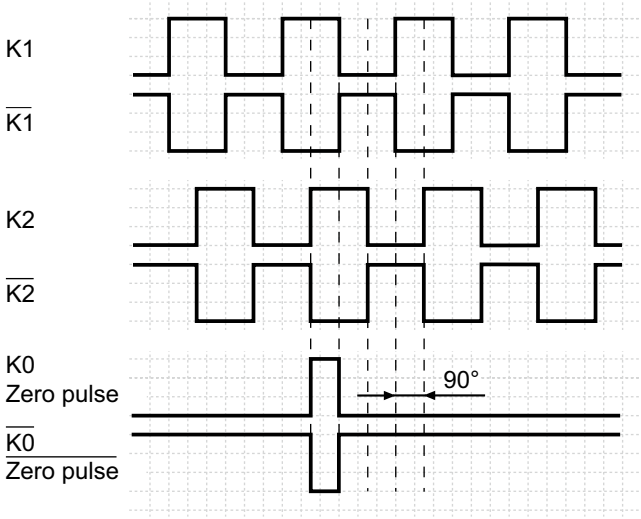
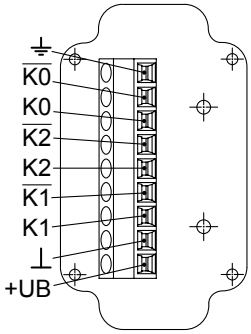
Output signals

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
$\overline{K1}$; $\overline{A}$; A-	Output signal channel 1 inverted
K2; B; B+	Output signal channel 2 (offset by 90° to channel 1)
$\overline{K2}$; $\overline{B}$; B-	Output signal channel 2 (offset by 90° to channel 1) inverted
K0; C; R; R+	Zero pulse (reference signal)
$\overline{K0}$; $\overline{C}$; $\overline{R}$; R-	Zero pulse (reference signal) inverted
dnu	Do not use

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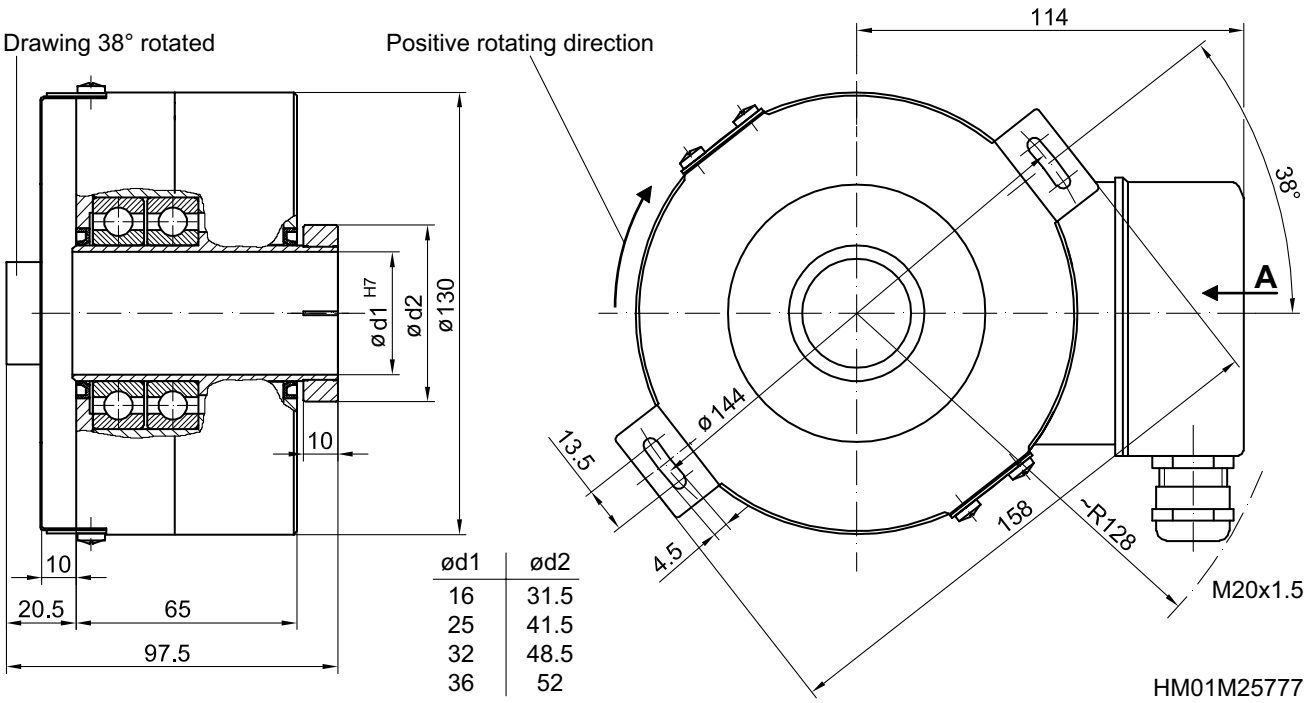
Dimensions



ød1	ød2
16	31.5
25	41.5
32	48.5
36	52