Incremental encoders

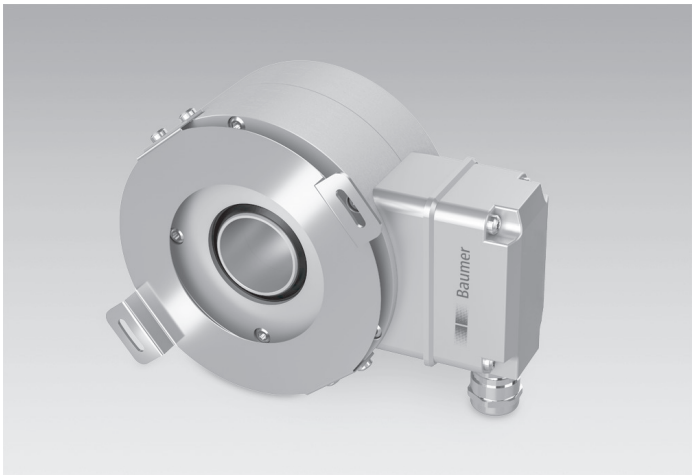
HOG 131

Through hollow shaft ø16...36 mm

1024...3072 pulses per revolution

Overview

- 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°



HTL TTL® HUBNER BERLIN A Baumer Brand

Technical data

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
Approval	CE UL approval / E217823
Technical data - mechanical design	
Size (flange)	ø130 mm
Shaft type	ø16...36 mm (through hollow shaft)

Technical data - mechanical design	
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)
Material	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

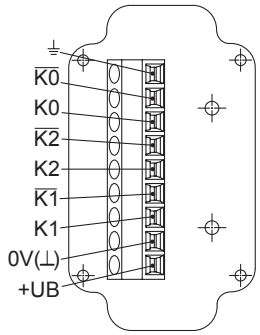
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Terminal assignment

View A *(see dimension)*
Connecting terminal terminal box, radial

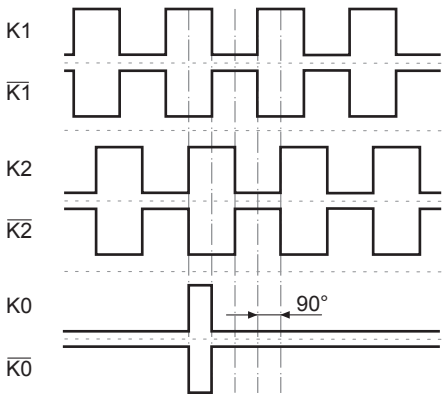


Terminal significance

+UB	Voltage supply
0V (⊥)	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)*



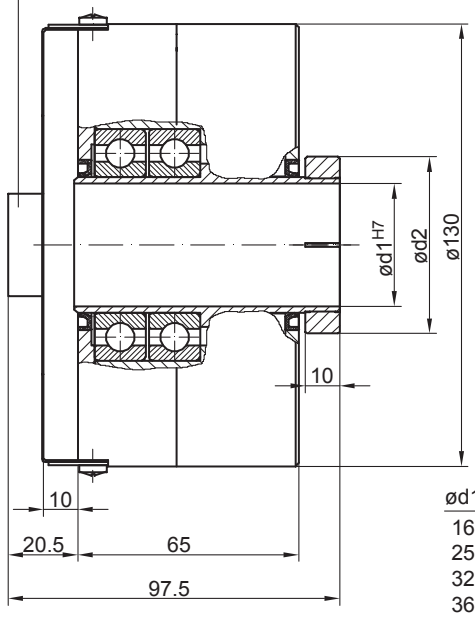
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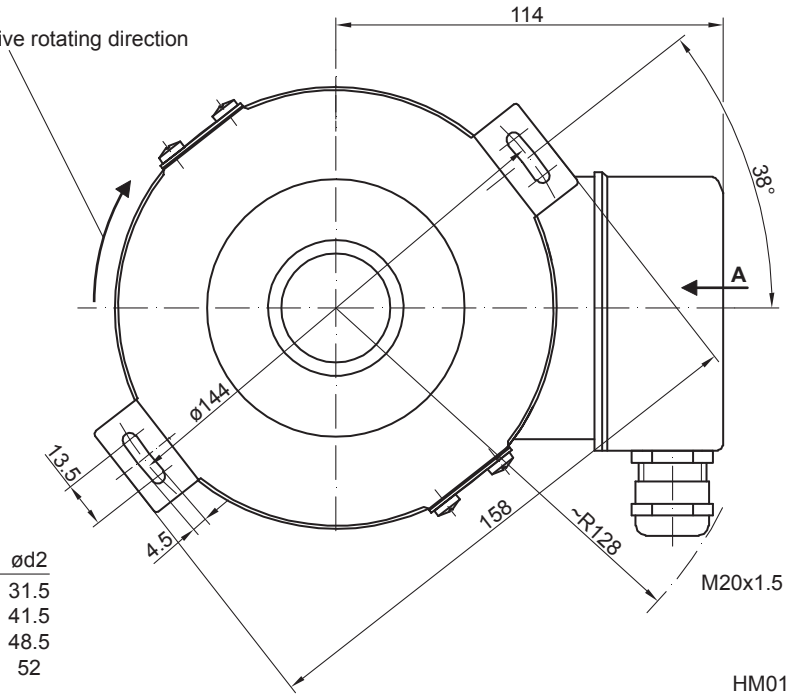
Dimensions

Drawing 38° rotated



ød1	ød2
16	31.5
25	41.5
32	48.5
36	52

Positive rotating direction



HM01M25777

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HOG 131

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Ordering reference

	HOG131	DN	####	###	######
Product					
Incremental encoder	HOG131				
Output signals					
K1, K2, K0		DN			
Pulse number(1)					
1024			1024		
2048			2048		
3072			3072		
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 ø16 mm					16H7
Through hollow shaft ø25 mm					25H7
Blind hollow shaft ø32 mm					32H7
Blind hollow shaft ø36 mm					36H7

(1) Other pulse numbers on request.

Accessories

Connectors and cables

	Sensor cable for encoders HEK 8

Diagnostic accessories

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

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