

# Incremental encoders

Through hollow shaft  $\varnothing 20...38$  mm

250...2500 pulses per revolution

## HOG 16



HOG 16

### Technical data - electrical ratings

Voltage supply	9...30 VDC 5 VDC $\pm 5$ % 9...26 VDC
Consumption w/o load	$\leq 100$ mA
Pulses per revolution	250...2500
Phase shift	$90^\circ \pm 20^\circ$
Duty cycle	40...60 %
Reference signal	Zero pulse, width $90^\circ$
Sensing method	Optical
Output frequency	$\leq 120$ 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  $\varnothing 20...38$  mm
- Robust light-metal housing
- Output stage HTL, TTL or TTL with regulator UB 9...26 VDC
- Special protection against corrosion
- With earthing brushes
- Large terminal box, turn by  $180^\circ$

### Optional

- Redundant sensing with two terminal boxes
- Hybrid bearing

### Technical data - mechanical design

Size (flange)	$\varnothing 158$ mm
Shaft type	$\varnothing 20...38$ mm (through hollow shaft)
Admitted shaft load	$\leq 450$ N axial $\leq 600$ N radial
Protection DIN EN 60529	IP 66
Operating speed	$\leq 6000$ rpm (mechanical)
Operating torque typ.	15 Ncm
Rotor moment of inertia	4.9 kgcm <sup>2</sup> ( $\varnothing 25$ )
Materials	Housing: aluminium alloy 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 C4 according to ISO 12944-2
Connection	Terminal box 2x terminal box (with option M)
Weight approx.	4.9 kg, 5.1 kg (with option M)

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



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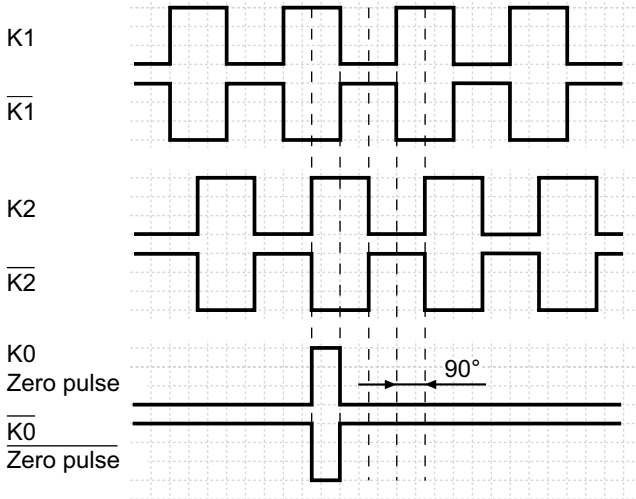
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### Output signals

At positive rotating direction

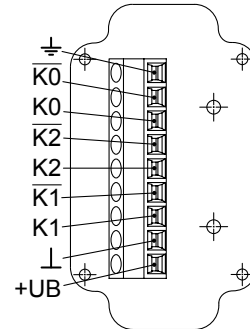


### Terminal significance

+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

### Terminal assignment

View A - Connecting terminal terminal box



### 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 $\geq 71$ mm)
11002915	Torque arm M6, length 425-460 mm (shortenable $\geq 131$ mm)
11054917	Torque arm M6 insulated, length 67-70 mm
11072795	Torque arm M6 insulated, length 120-130 mm (shortenable $\geq 71$ mm)
11082677	Torque arm M6 insulated, length 425-460 mm (shortenable $\geq 131$ mm)
11077197	Mounting kit for torque arm size M6 and earthing strap

#### Diagnostic accessories

11075858 Analyzer for encoders HENQ 1100

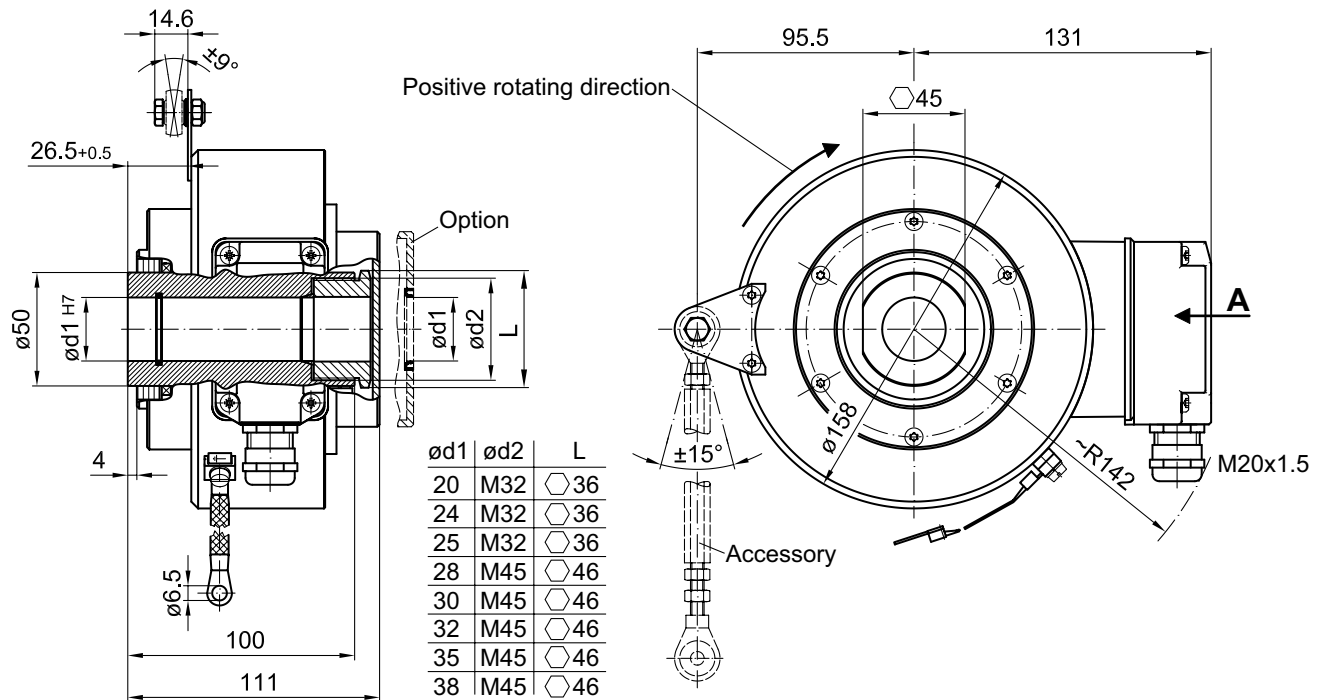
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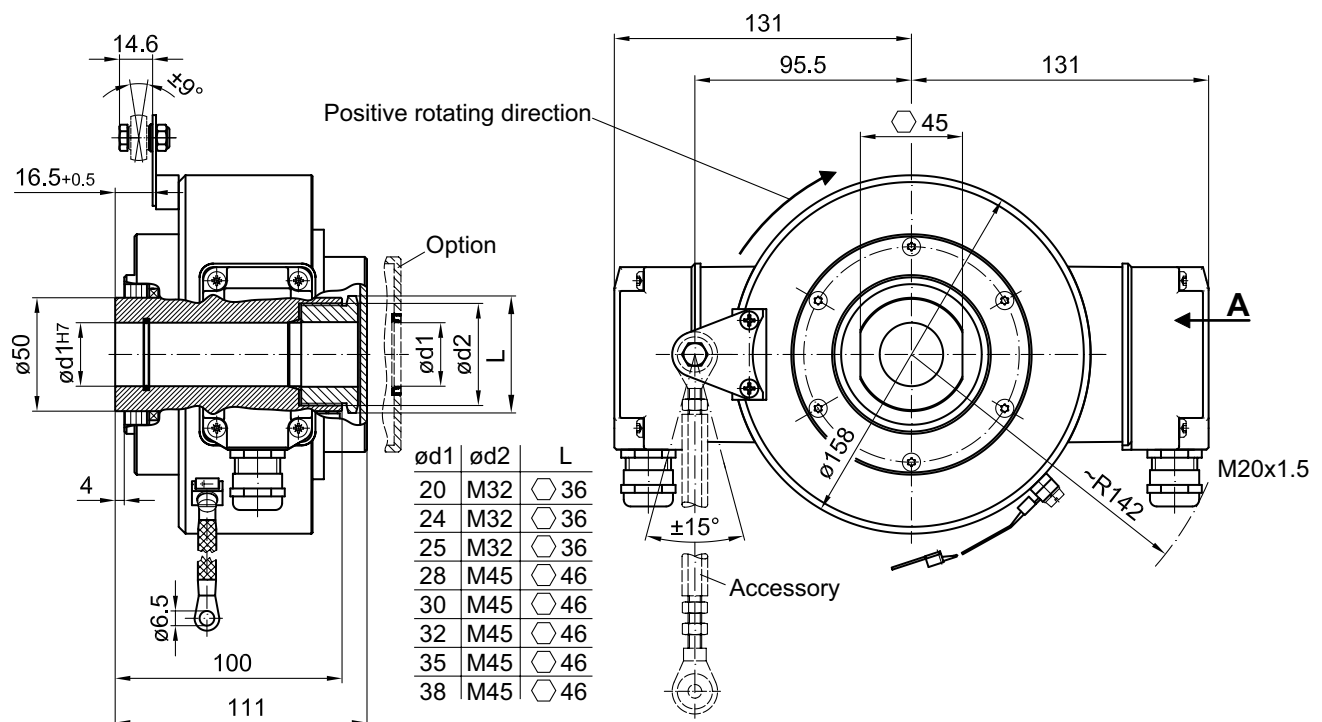
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## Dimensions

### HOG 16 - Version with single sensing



### HOG 16 M - Version with redundant sensing



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