Incremental encoders

Through hollow shaft ø12...26 mm

250...2500 pulses per revolution

HOG 75

HOG 75

Features

- **Through hollow shaft ø12...26 mm**
- **Optical sensing method**
- **Compact, robust aluminium housing**
- **Inside connecting terminals**
- **Output stage HTL or TTL**
- **Output stage TTL with regulator UB 9...26 VDC**
- **Especially high resistance to vibrations**
- **Hybrid bearing for extended service life (HOG 75 C)**

Technical data - electrical ratings

Voltage supply	9...26 VDC 5 VDC ±5 %
Consumption w/o load	≤100 mA
Pulses per revolution	250...2500
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)	ø75 mm
Shaft type	ø12...26 mm (through hollow shaft)
Admitted shaft load	≤80 N axial ≤150 N radial
Protection DIN EN 60529	IP 56
Operating speed	≤10000 rpm (mechanical)
Starting torque	≤4 Ncm
Rotor moment of inertia	180 gcm²
Materials	Housing: aluminium Shaft: stainless steel
Operating temperature	-30...+85 °C
Resistance	IEC 60068-2-6 Vibration 48 g, 10-2000 Hz IEC 60068-2-27 Shock 200 g, 6 ms
Explosion protection	II 3 G Ex nA IIC T4 Gc (gas) II 3 D Ex tc IIIC T135°C Dc (dust)
Connection	Connecting terminal
Weight approx.	580 g

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Part number

HOG75 [ ][ ][**DN**][ ][ ][ ][ ][ ][ ][ ][ ]

Mounting type
- KLR A Clamping ring in front (drive side)
- KLR B Clamping ring rear

Shaft diameter
- 12H7 Through hollow shaft ø12 mm
- 14H7 Through hollow shaft ø14 mm
- 16H7 Through hollow shaft ø16 mm
- 18H7 Through hollow shaft ø18 mm
- 19H7 Through hollow shaft ø19 mm
- 20H7 Through hollow shaft ø20 mm
- 22H7 Through hollow shaft ø22 mm
- 24H7 Through hollow shaft ø24 mm
- 25H7 Through hollow shaft ø25 mm
- 26H7 Through hollow shaft ø26 mm

Voltage supply / signals
- CI 9...26 VDC / output stage HTL (C) 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

Shaft type

Standard ball bearings
- C With hybrid bearings (only with shaft diameter 16 mm and clamping ring in front)

Pulse number

250	500	720	1200	2048
256	512	1024	1250	2500

Other pulse numbers on request.

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 ≥71 mm)
11002915	Torque arm M6, length 425-460 mm (shortenable ≥131 mm)
11054917	Torque arm M6 insulated, length 67-70 mm
11072795	Torque arm M6 insulated, length 120-130 mm (shortenable ≥71 mm)
11082677	Torque arm M6 insulated, length 425-460 mm (shortenable ≥131 mm)
Diagnostic accessories	
11075858	Analyzer for encoders HENQ 1100

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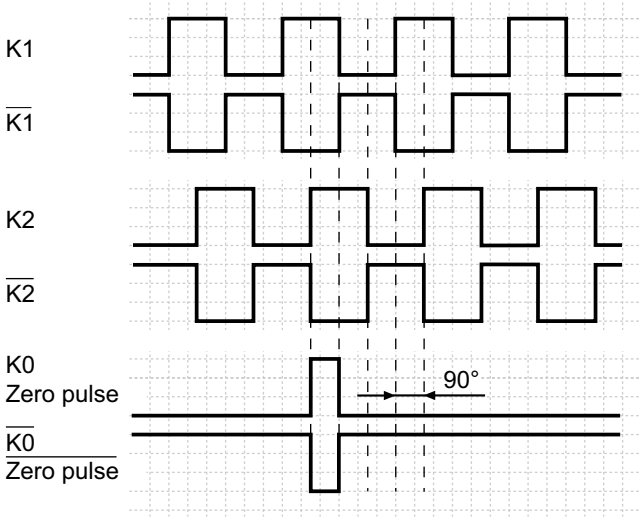
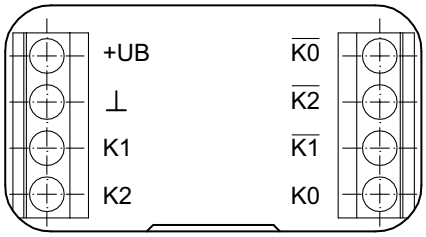
Output signals

At positive rotating direction



Terminal assignment

View A - Connecting terminal



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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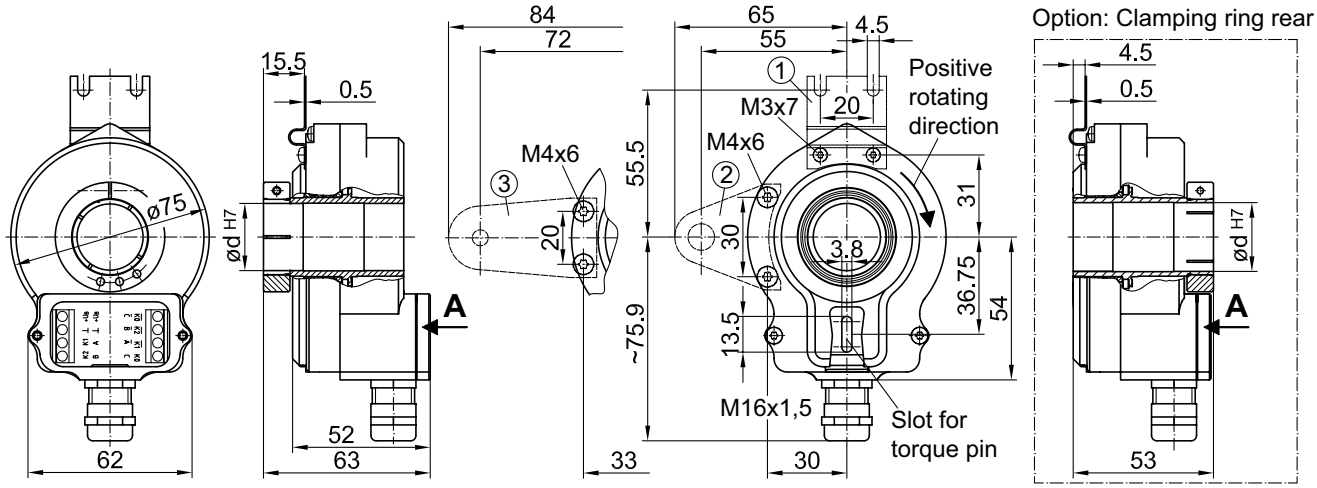
Dimensions

HOG 75 - With through hollow shaft without hybrid bearings



ø**d**^{H7} = 12, 14, 16, 18, 19, 20, 22, 24, 25, 26

①②③ = Different torque support plates as option

HOG 75 C - With through hollow shaft and hybrid bearings