

Incremental encoders

Through hollow shaft $\varnothing 10...16$ mm
1...5000 pulses per revolution

HOG 8



HOG 8

Features

- Through hollow shaft $\varnothing 10...16$ mm
- Optical sensing method
- Compact, robust die-cast housing
- Output stage HTL or TTL
- Output stage TTL with regulator UB 9...26 VDC

Optional

- Cone shaft $\varnothing 17$ mm (1:10)
- Option 1: Torque sheet
- Option 2: Support plate for torque arm

Technical data - electrical ratings

Voltage supply	9...26 VDC 5 VDC ± 5 %
Consumption w/o load	≤ 100 mA
Pulses per revolution	1...5000
Phase shift	$90^\circ \pm 20^\circ$
Duty cycle	40...60 %
Reference signal	Zero pulse, width 90°
Sensing method	Optical
Output frequency	≤ 120 kHz ≤ 300 kHz (on request)
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)	$\varnothing 86.5$ mm
Shaft type	$\varnothing 10...16$ mm (through hollow shaft)
Admitted shaft load	≤ 100 N axial ≤ 200 N radial
Protection DIN EN 60529	IP 54
Operating speed	≤ 12000 rpm (mechanical)
Operating torque typ.	1 Ncm
Rotor moment of inertia	18 gcm ²
Materials	Housing: aluminium die-cast Shaft: stainless steel
Operating temperature	-30...+85 °C -25...+85 °C (>3072 pulses per revolution)
Resistance	IEC 60068-2-6 Vibration 10 g, 20-2000 Hz IEC 60068-2-27 Shock 100 g, 6 ms
Connection	Connecting terminal
Weight approx.	650 g

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Part number

Incremental encoder

HOG8 DN

Shaft diameter

10H7	Through hollow shaft $\varnothing 10$ mm
12H7	Through hollow shaft $\varnothing 12$ mm
14H7	Through hollow shaft $\varnothing 14$ mm
15H7	Through hollow shaft $\varnothing 15$ mm
16H7	Through hollow shaft $\varnothing 16$ mm

Voltage supply / signals

C	9...26 VDC / output stage HTL (C) (for output signals D)
CI	9...26 VDC / output stage HTL (C) with inverted signals (for output signals DN)
TTL	5 VDC / output stage TTL with inverted signals
R	9...26 VDC / output stage TTL with inverted signals (for output signals DN)

Pulse number - see table

Output signals

DN K1, K2, K0

Pulse number

8	60	192	512	1200
20	62	200	600	1250
25	64	250	720	2048
30	100	300	900	2500
36	120	360	1000	3072
40	176	400	1024	4096
50	180	500	1042	5000

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)
11071904	Mounting kit for torque arm size M6

Diagnostic accessories

11075858 Analyzer for encoders HENQ 1100

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

Incremental encoders

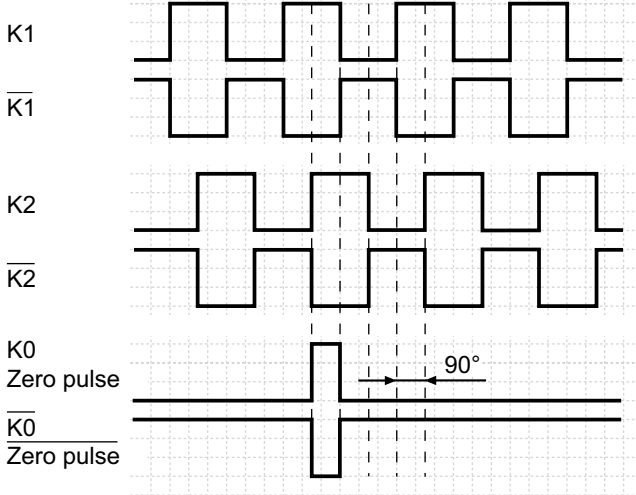
Through hollow shaft $\varnothing 10 \dots 16$ mm

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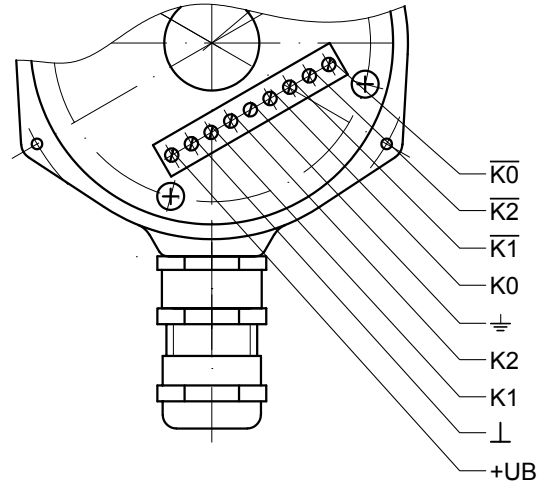
Output signals

At positive rotating direction



Terminal assignment

View A - Connecting terminal



Terminal significance

+UB	Voltage supply (for the device)
\perp ; \downarrow ; GND; 0 V	Ground (for the signals)
\perp ; \nearrow	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

