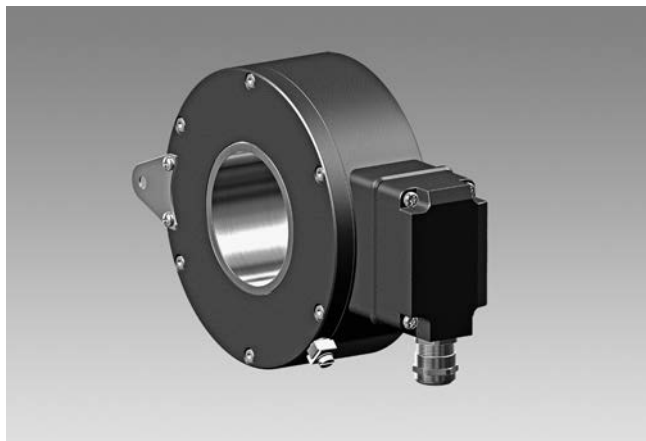


Incremental encoders

Through hollow shaft $\varnothing 38$ to $\varnothing 75$ mm

250...2500 pulses per revolution

HOG 161



HOG 161

Technical data - electrical ratings

Voltage supply	9...30 VDC 5 VDC ± 5 % 9...26 VDC
Consumption w/o load	≤ 100 mA
Pulses per revolution	250...2500
Phase shift	$90^\circ \pm 20^\circ$
Scan ratio	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

Features

- Robust light-metal housing
- Through hollow shaft up to $\varnothing 75$ mm
- Output stage HTL or TTL
- Output stage TTL with regulator UB 9...26 VDC
- Special protection against corrosion
- Large terminal box, turn by 180°

Optional

- Redundant sensing with two terminal boxes

Technical data - mechanical design

Size (flange)	$\varnothing 158$ mm
Shaft type	$\varnothing 38$...75 mm (through hollow shaft)
Admitted shaft load	≤ 350 N axial ≤ 500 N radial
Protection DIN EN 60529	IP 54
Operating speed	≤ 6000 rpm (mechanical)
Operating torque typ.	15 Ncm
Rotor moment of inertia	26.3 kgcm ² ($\varnothing 48$) 13.5 kgcm ² ($\varnothing 75$)
Materials	Housing: aluminium alloy Shaft: stainless steel
Operating temperature	-40 ... $+85$ °C
Resistance	IEC 60068-2-6 Vibration 10 g, 10-2000 Hz IEC 60068-2-27 Shock 100 g, 6 ms
Explosion protection	II 3 G Ex nA IIC T4 Gc (gas) II 3 D Ex tc IIIB T100°C Dc (dust)
Connection	Terminal box 2x terminal box (with option M)
Weight approx.	4.5 kg ($\varnothing 48$), 3.2 kg ($\varnothing 75$), 3.6 kg ($\varnothing 75$ with option M)

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HOG 161

Part number

Incremental encoder

HOG161

Shaft diameter

38H7	Through hollow shaft $\varnothing 38$ mm
40H7	Through hollow shaft $\varnothing 40$ mm
42H7	Through hollow shaft $\varnothing 42$ mm
45H7	Through hollow shaft $\varnothing 45$ mm
50H7	Through hollow shaft $\varnothing 50$ mm
55H7	Through hollow shaft $\varnothing 55$ mm
60H7	Through hollow shaft $\varnothing 60$ mm
65H7	Through hollow shaft $\varnothing 65$ mm
70H7	Through hollow shaft $\varnothing 70$ mm
75H7	Through hollow shaft $\varnothing 75$ mm

Voltage supply / signals

-	9...30 VDC / output stage HTL
I	9...30 VDC / output stage HTL with inverted signals (for output signals DN)
TTL	5 VDC / output stage TTL with inverted signals (for output signals DN)
R	9...26 VDC / output stage TTL with inverted signals (for output signals DN)

Pulse number - see table

Output signals

D	K1, K2
DN	K1, K2, K0

Redundant sensing

	Without redundant sensing
M	With redundant sensing

Pulse number

250	512	1024	1200	2500
500	1000	1080	2048	

Accessories

Connectors and cables

HEK 8	Sensor cable for encoders
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Mounting accessories

DMS 6	Torque arm size M6
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Diagnostic accessories

HENQ 1100	Analyzer for encoders
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Incremental encoders

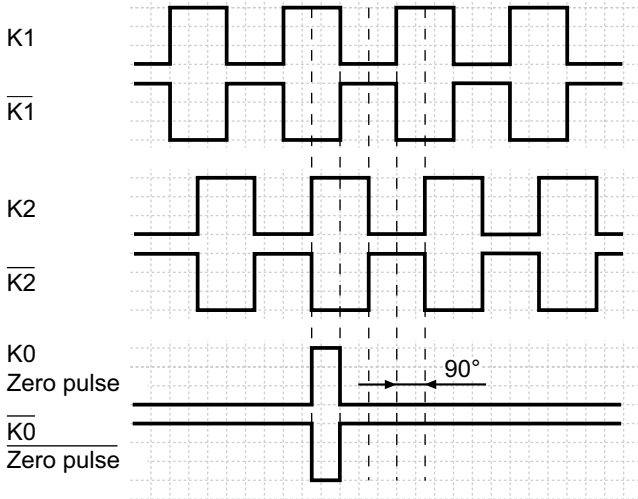
Through hollow shaft $\varnothing 38$ to $\varnothing 75$ mm

250...2500 pulses per revolution

HOG 161

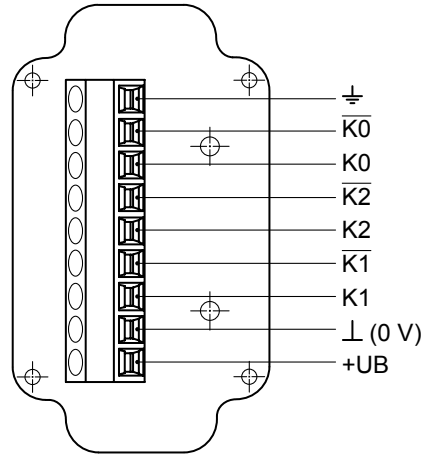
Output signals

At positive rotating direction

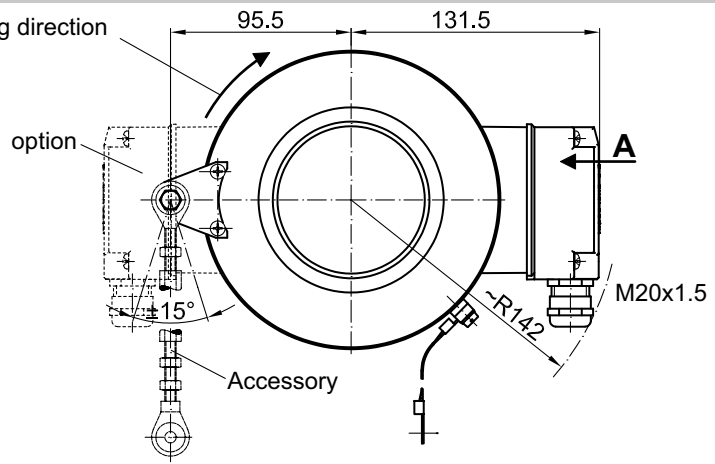
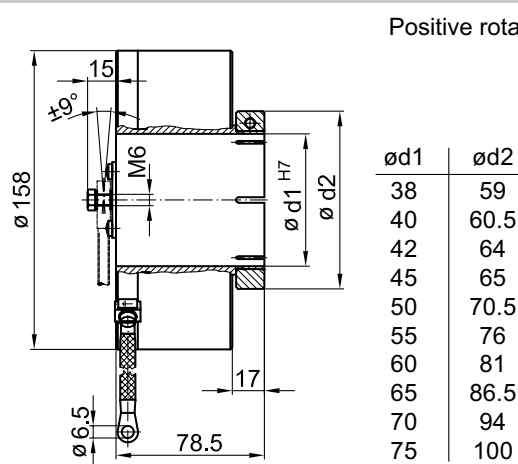


Terminal assignment

View A - Connecting terminal in terminal box



Dimensions



Incremental encoders

Through hollow shaft $\varnothing 38$ to $\varnothing 75$ mm
250...2500 pulses per revolution

HOG 161
