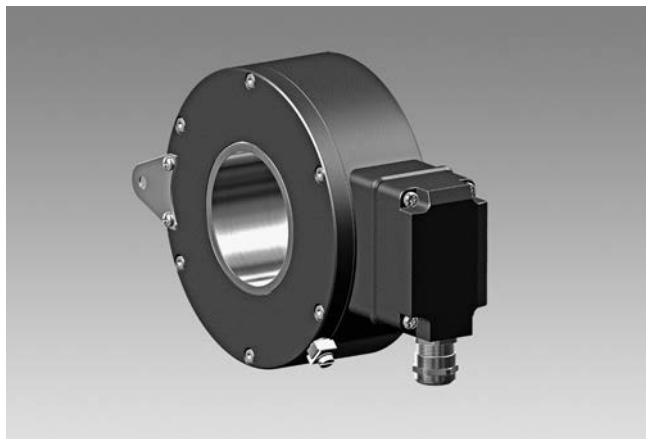


Incremental encoders

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
Corrosion protection	IEC 60068-2-52 Salt mist Complies to ISO 12944-5:1998 Protective paint systems (C4)
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)

Incremental encoders

Through hollow shaft ø38 to ø75 mm

250...2500 pulses per revolution

HOG 161

Part number

Incremental encoder

HOG161

							<u>Shaft diameter</u>
							38H7 Through hollow shaft ø38 mm
							40H7 Through hollow shaft ø40 mm
							42H7 Through hollow shaft ø42 mm
							45H7 Through hollow shaft ø45 mm
							50H7 Through hollow shaft ø50 mm
							55H7 Through hollow shaft ø55 mm
							60H7 Through hollow shaft ø60 mm
							65H7 Through hollow shaft ø65 mm
							70H7 Through hollow shaft ø70 mm
							75H7 Through hollow shaft ø75 mm
							<u>Voltage supply / signals</u>
							- 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)
							<u>Pulse number - see table</u>
							<u>Output signals</u>
							D K1, K2
							DN K1, K2, K0
							<u>Redundant sensing</u>
							Without redundant sensing
							M With redundant sensing

Pulse number				
250	512	1024	1200	2500
500	1000	1080	2048	

Accessories	
<u>Connectors and cables</u>	
HEK 8	Sensor cable for encoders
<u>Mounting accessories</u>	
DMS 6	Torque arm size M6
<u>Diagnostic accessories</u>	
HENQ 1100	Analyzer for encoders

19/7/2017 Subject to modification in technic and design. Errors and omissions excepted.

Incremental encoders

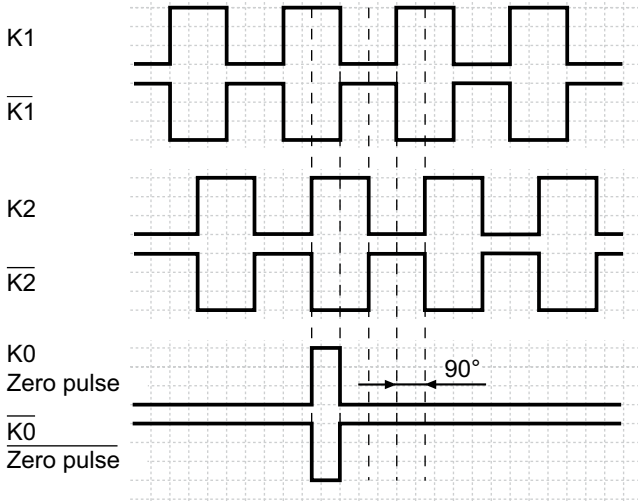
Through hollow shaft $\varnothing 38$ to $\varnothing 75$ mm

250...2500 pulses per revolution

HOG 161

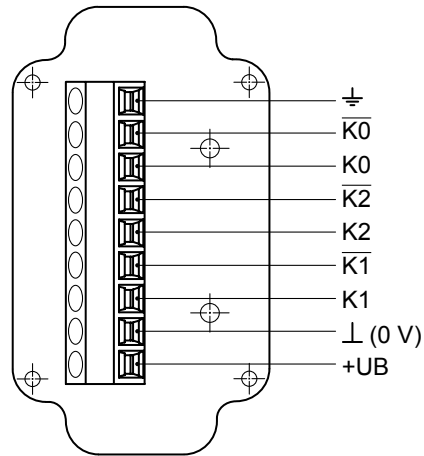
Output signals

At positive rotating direction

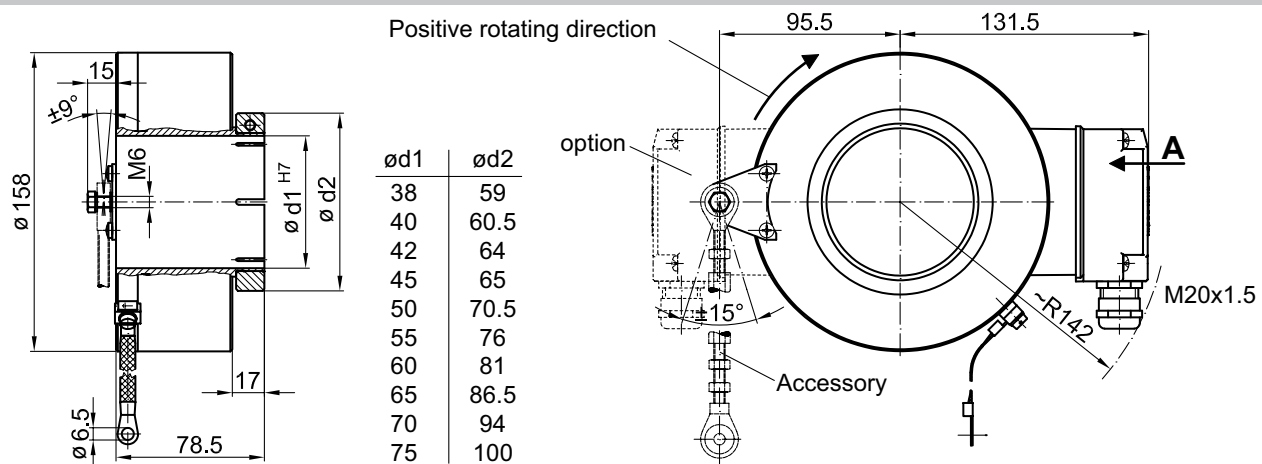


Terminal assignment

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
