

Incremental encoders

Blind hollow shaft $\varnothing 8$ mm, $\varnothing 10$ mm and $\varnothing 12$ mm

200...10000 pulses per revolution

HOG 60



HOG 60

Technical data - electrical ratings

Voltage supply	9...26 VDC 5 VDC ± 5 %
Consumption w/o load	≤ 100 mA
Pulses per revolution	200...10000
Phase shift	$90^\circ \pm 8^\circ$
Scan ratio	46...54 %
Reference signal	Zero pulse, width 90°
Sensing method	Optical
Output frequency	≤ 250 kHz
Output signals	A+, B+, R+, A-, B-, R-
Output stages	HTL TTL/RS422
Interference immunity	EN 61000-6-2
Emitted interference	EN 61000-6-3
Approvals	CE, UL approval / E256710

Features

- Blind hollow shaft $\varnothing 8$... 12 mm
- Optical sensing method
- Compact, robust housing
- Max. 10000 pulses per revolution
- Output stage HTL or TTL
- Output stage TTL with regulator UB 9...26 VDC
- Very high resistance to shock
- High protection IP 65

Optional

- Connecting cable with cable gland

Technical data - mechanical design

Size (flange)	$\varnothing 58$ mm
Shaft type	$\varnothing 8$... 12 mm (blind hollow shaft)
Admitted shaft load	≤ 30 N axial ≤ 40 N radial
Protection DIN EN 60529	IP 65
Operating speed	≤ 12000 rpm (mechanical)
Operating torque typ.	1 Ncm
Rotor moment of inertia	22 gcm ²
Materials	Housing: aluminium die-cast Shaft: stainless steel
Operating temperature	-30 ... $+85$ °C
Resistance	IEC 60068-2-6 Vibration 10 g, 10-2000 Hz IEC 60068-2-27 Shock 300 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	Flange connector M23, 12-pin Mating connector Connecting cable (option)
Weight approx.	450 g

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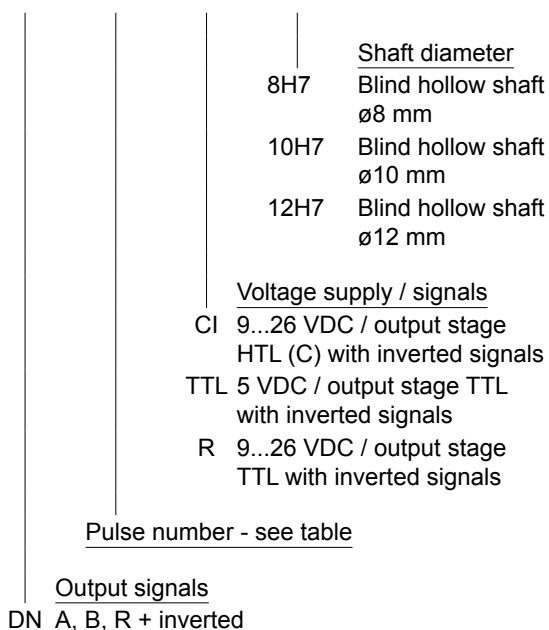
200...10000 pulses per revolution

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Part number

Incremental encoder

HOG60 **DN**



Accessories

Connectors and cables

HEK 8 Sensor cable for encoders

Diagnostic accessories

HENQ 1100 Analyzer for encoders

Pulse number

200	720	1250	2500	5000
360	900	1800	3000	8192
512	1000	2000	3600	10000
600	1024	2048	4096	

Other pulse numbers on request.

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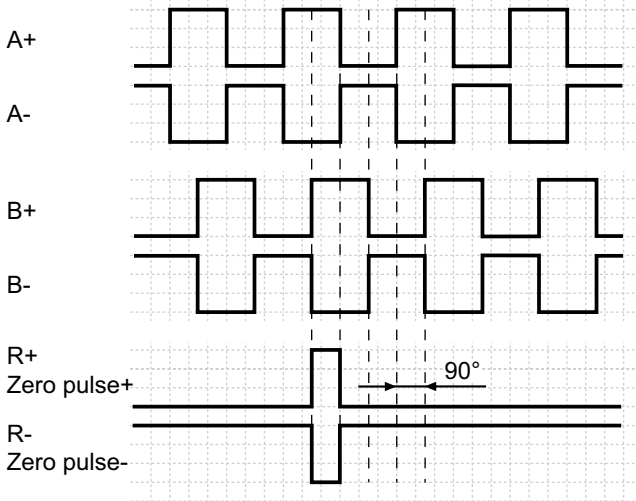
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Output signals

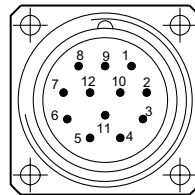
At positive rotating direction



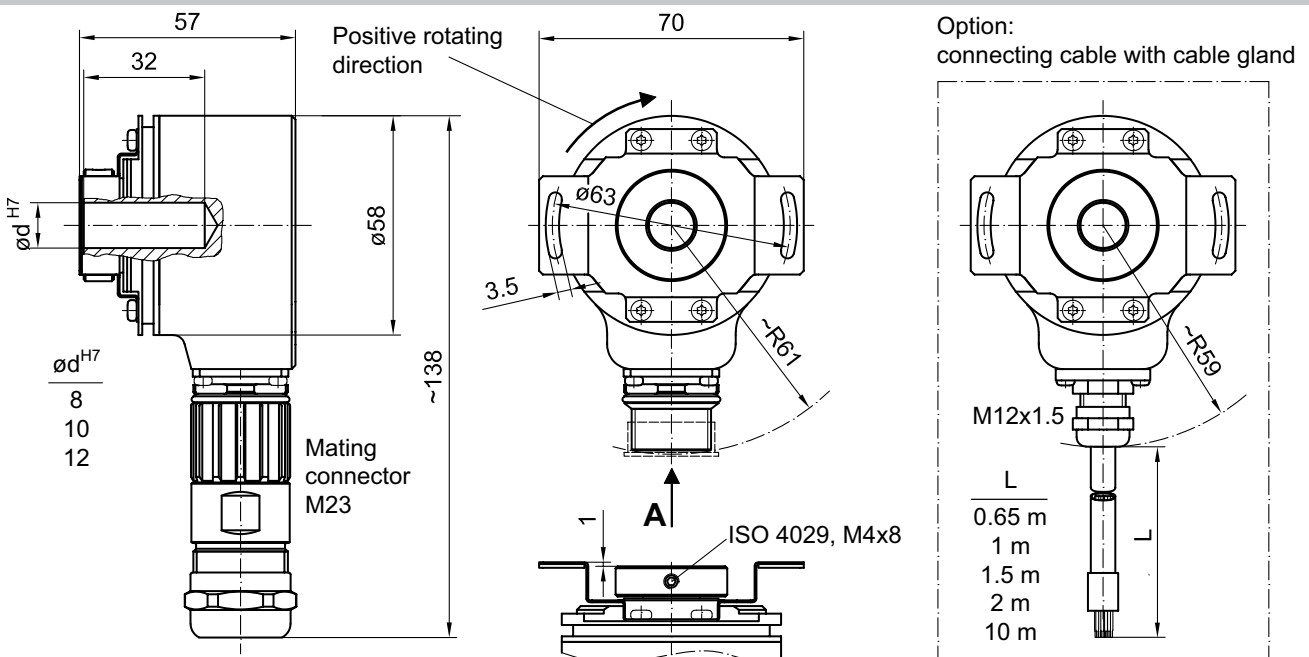
Terminal assignment

View A - Flange connector M23, 12 pin, male contacts, CW

Pin	Assignment
1	B-
2	Do not use
3	R+ (Zero pulse)
4	R- (Zero pulse inv.)
5	A+
6	A-
7	Do not use
8	B+
9	Do not use
10	0 V
11	Do not use
12	+UB



Dimensions



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