

HG 6

Blind hollow shaft $\varnothing 12 \dots 16$ mm
100...512 pulses per revolution

Overview

- Fit for very high operating speed
- Incremental disk protected in axial and radial direction
- Robust construction without own bearings
- Max. 512 pulses per revolution
- Output stage TTL with regulator UB 9...26 VDC



Technical data

Technical data - electrical ratings

Voltage supply	9...26 VDC 5 VDC ± 5 %
Consumption w/o load	≤ 100 mA
Pulses per revolution	100 ... 512
Output signals	K1, K2, K0 + inverted
Reference signal	Zero pulse, width 90°
Output frequency	≤ 120 kHz
Phase shift	$90^\circ \pm 20^\circ$
Duty cycle	40...60 %
Sensing method	Optical
Output stages	HTL TTL/RS422
Interference immunity	EN 61000-6-2
Emitted interference	EN 61000-6-3
Approval	CE UL approval / E217823

Technical data - mechanical design

Size (flange)	$\varnothing 58$ mm
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Technical data - mechanical design

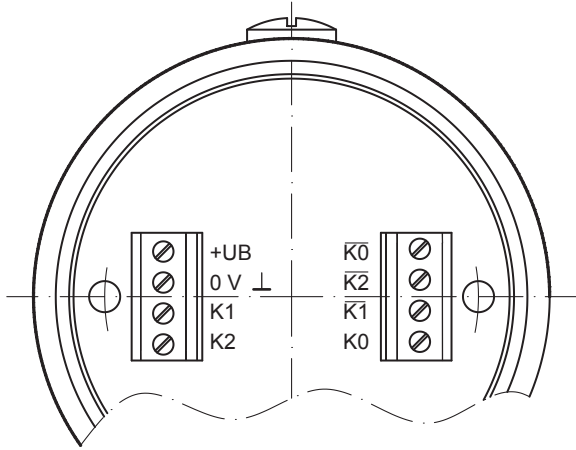
Shaft type	$\varnothing 12 \dots 16$ mm (blind hollow shaft)
Axial tolerance	± 0.2 mm
Radial tolerance	± 0.05 mm (with zero pulse) ± 0.2 mm (without zero pulse)
Protection EN 60529	IP 55 (≤ 12000 U/min) IP 23 (≤ 30000 rpm)
Operating speed	≤ 12000 rpm ≤ 30000 rpm (option)
Material	Housing: aluminium Shaft: stainless steel
Rotor moment of inertia	18 gcm ²
Operating temperature	$-20 \dots +85$ °C
Resistance	IEC 60068-2-6 Vibration 10 g, 10-2000 Hz IEC 60068-2-27 Shock 100 g, 6 ms
Weight approx.	180 g
Connection	Connecting terminal

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Terminal assignment

View A (see dimension)
Connecting terminal



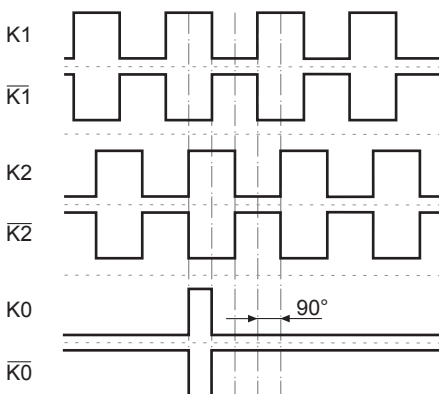
Terminal significance

+UB	Voltage supply
0V (⊥)	Ground
⊥	Earth ground (housing)
K1	Output signal channel 1
$\overline{K1}$	Output signal channel 1 inverted
K2	Output signal channel 2 (offset by 90° to channel 1)
$\overline{K2}$	Output signal channel 2 inverted
K0	Zero pulse (reference signal)
$\overline{K0}$	Zero pulse inverted

Output signals

HTL/TTL

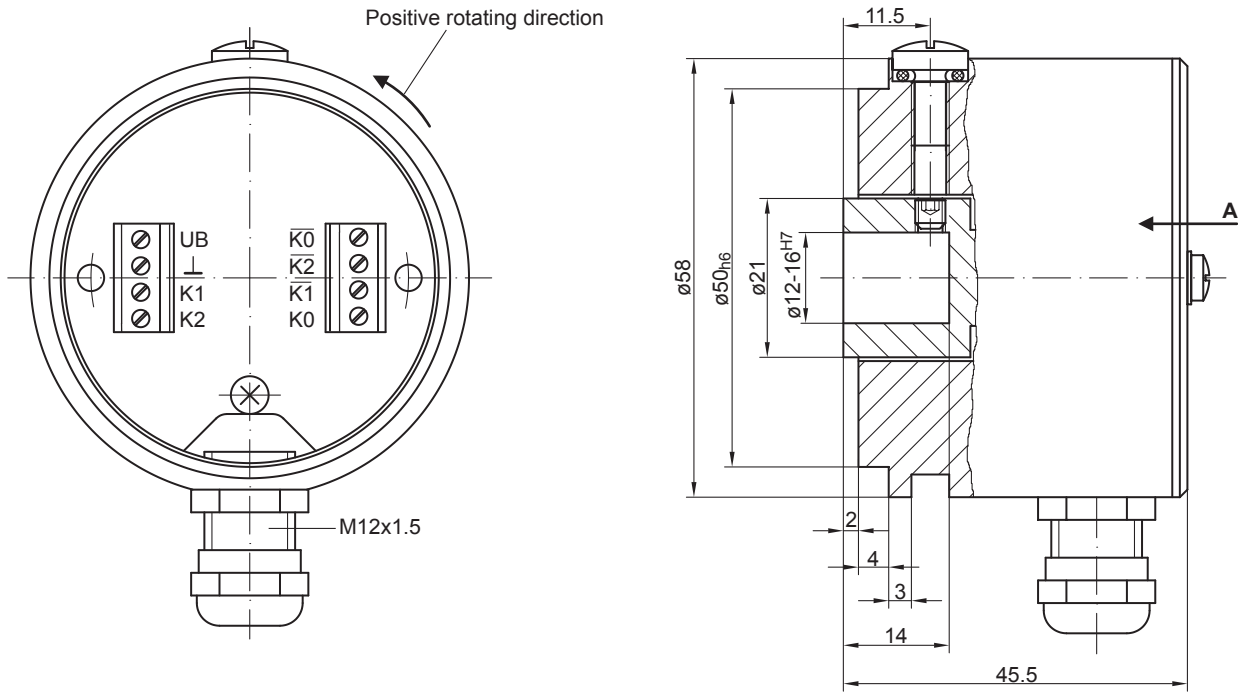
At positive rotating direction (see dimension)



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Dimensions



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Ordering reference

	HG6	DN	####	###
Product				
Encoder without bearings - incremental	HG6			
Output signals				
K1, K2, K0		DN		
Pulse number⁽¹⁾				
100				100
200				200
360				360
500				500
512				512
Voltage supply / output stage				
9...26 VDC / output stage HTL (C) with inverted signals				CI
5 VDC / output stage TTL with inverted signals				TTL
9...30 VDC / output stage TTL with inverted signals				R

(1) Other pulse numbers on request.

Accessories

Mounting accessories

Eccentric disks (clamping claws)