Baumer
Passion for Sensors

Encoders without bearings - incremental

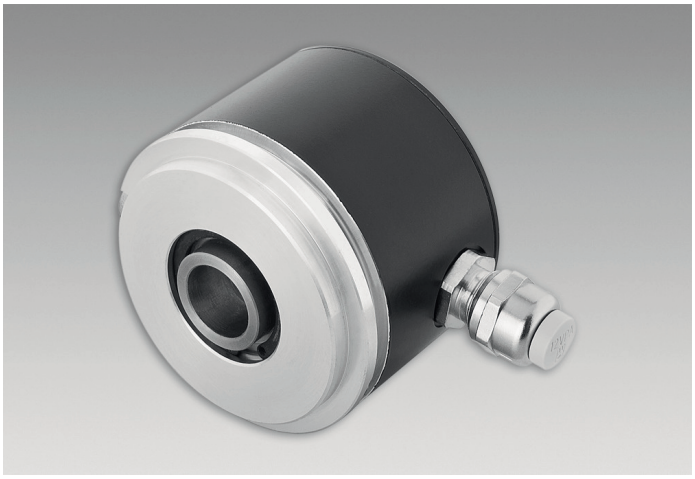
HG 6

Blind hollow shaft ø12...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



HTL TTL® HÜBNER BERLIN A Baumer Brand

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 ° ±20°
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)	ø58 mm

Technical data - mechanical design	
Shaft type	ø12...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 DIN 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 gcm²
Operating temperature	-20...+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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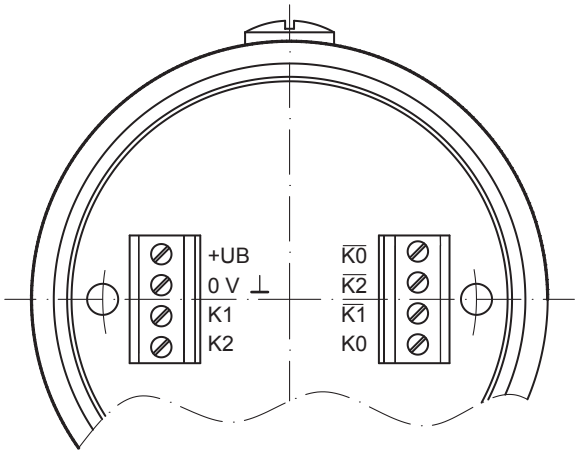
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Terminal assignment

View A *(see dimension)*
Connecting terminal

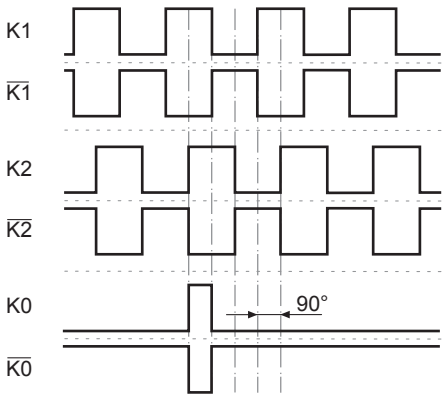


Terminal significance

+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)*



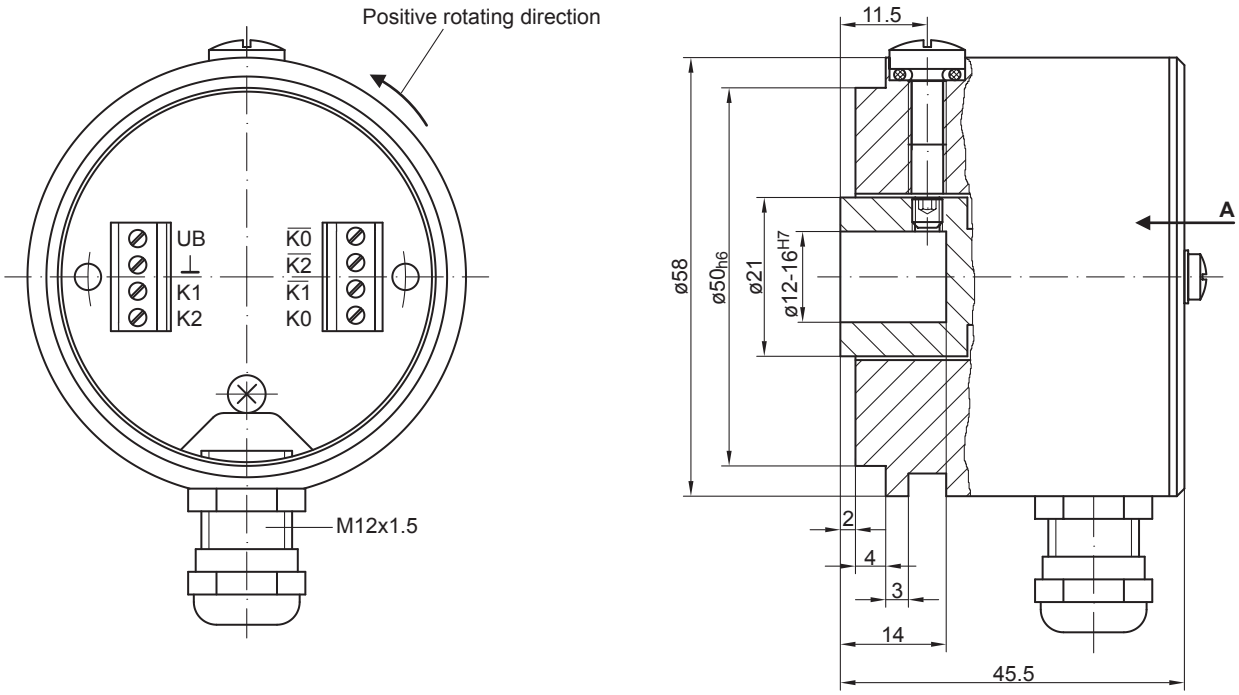
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Dimensions



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HG 6

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100…512 pulses per revolution

Ordering reference

	HG6	DN	####	###
Product				
Incremental encoder	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 / HTL (C)				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

Connectors and cables

	Sensor cable for encoders HEK 8

Diagnostic accessories

11075858	Analyzer for encoders HENQ 1100
11075880	Analyzer for encoders HENQ 1100 B

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