

# Encoders without bearings - incremental

Blind hollow shaft  $\varnothing 12...16$  mm

100...512 pulses per revolution

## HG 6



HG 6

### Features

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

### Technical data - electrical ratings

Voltage supply	9...26 VDC 5 VDC $\pm 5$ %
Consumption w/o load	$\leq 100$ mA
Sensing method	Optical
Pulses per revolution	100...512
Output stages	HTL TTL/RS422
Output signals	K1, K2, K0 + inverted
Reference signal	Zero pulse, width $90^\circ$
Output frequency	$\leq 120$ kHz
Phase shift	$90^\circ \pm 20^\circ$
Scan ratio	40...60 %
Interference immunity	EN 61000-6-2
Emitted interference	EN 61000-6-3
Approvals	CE, RoHS, UL approval / E256710

### Technical data - mechanical design

Size (flange)	$\varnothing 58$ mm
Axial tolerance	$\pm 0.2$ mm
Radial tolerance	$\pm 0.05$ mm (with zero pulse) $\pm 0.2$ mm (without zero pulse)
Shaft type	$\varnothing 12...16$ mm (blind hollow shaft)
Protection DIN EN 60529	IP 55 ( $\leq 12000$ U/min), IP 23 ( $\leq 30000$ rpm)
Operating temperature	$-20...+85$ °C
Operating speed	$\leq 12000$ rpm $\leq 30000$ rpm (option)
Rotor moment of inertia	18 gcm <sup>2</sup>
Resistance	IEC 60068-2-6 Vibration 10 g, 10-2000 Hz IEC 60068-2-27 Shock 100 g, 6 ms
Materials	Housing: aluminium Shaft: stainless steel
Connection	Connecting terminal
Weight approx.	180 g

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## Part number

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Pulse number - see table

Voltage supply / signals

CI 9...26 VDC / output circuit HTL (C) with inverted signals (for output signals DN)

TTL 5 VDC / output circuit TTL with inverted signals

R 9...26 VDC / output circuit TTL with inverted signals (for output signals DN)

Output signals

D K1, K2

DN K1, K2, K0

## Pulse number

100 | 200 | 360 | 500 | 512

Other pulse numbers on request.

## Accessories

Eccentric disks  
(clamping claws)

## Connectors and cables

HEK 8      Sensor cable for encoders

# Encoders without bearings - incremental

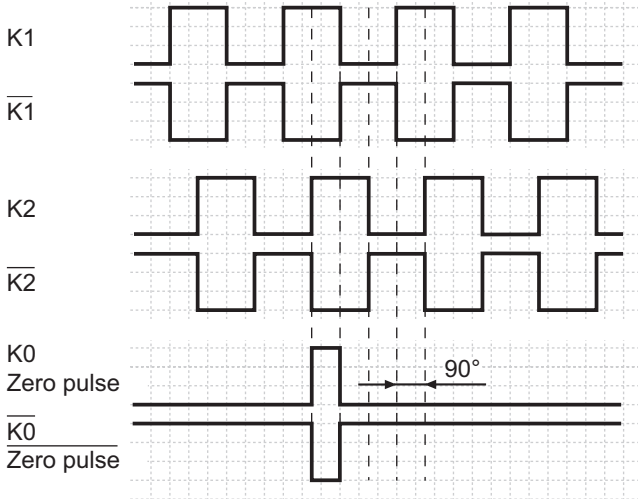
Blind hollow shaft  $\varnothing 12 \dots 16$  mm

100...512 pulses per revolution

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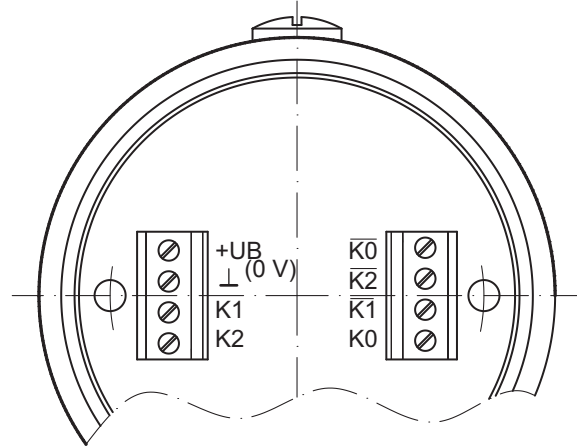
### Output signals

At positive rotating direction

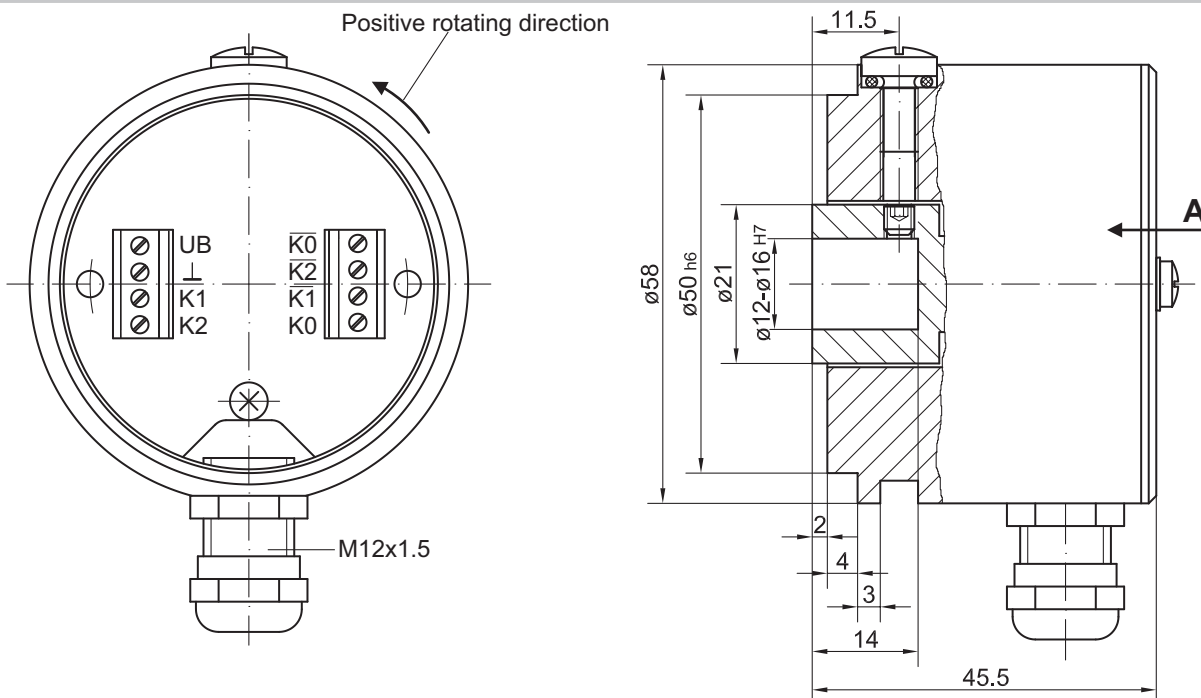


### Terminal assignment

View A - Connecting terminal



### Dimensions



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