Baumer
Passion for Sensors

Incremental encoders

HOG 8

Through hollow shaft ø10...16 mm

8...5000 pulses per revolution

Overview

- Through hollow shaft ø10...16 mm
- Optical sensing method
- Compact, robust die-cast housing
- Output stage HTL or TTL
- Output stage TTL with regulator UB 9...26 VDC



HTL TTL® HUBNER 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	8 … 5000
Phase shift	90 ° ±20°
Duty cycle	40…60 %
Reference signal	Zero pulse, width 90°
Sensing method	Optical
Output frequency	≤120 kHz ≤300 kHz (on request)
Output signals	K1, K2, K0 + inverted
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)	ø86.5 mm
Shaft type	ø10...16 mm (through hollow shaft)
Admitted shaft load	≤100 N axial ≤200 N radial
Protection DIN EN 60529	IP 54
Operating speed	≤12000 rpm (mechanical)
Operating torque typ.	1 Ncm
Rotor moment of inertia	18 gcm²
Material	Housing: aluminium die-cast Shaft: stainless steel
Operating temperature	-30...+85 °C -25...+85 °C (>3072 pulses)
Resistance	IEC 60068-2-6 Vibration 10 g, 20...2000 Hz IEC 60068-2-27 Shock 100 g, 6 ms
Connection	Connecting terminal
Weight approx.	650 g

Optional

- Cone shaft ø17 mm (1:10)
- Option 2: Support plate for torque arm
- Option 1: Torque sheet

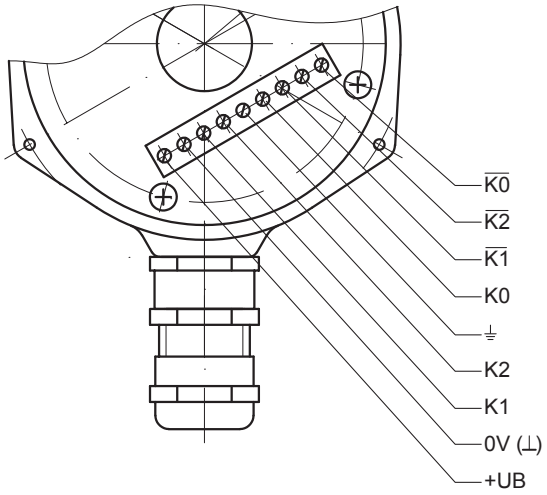
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Terminal assignment

View A *(see dimension)*
Connecting terminal

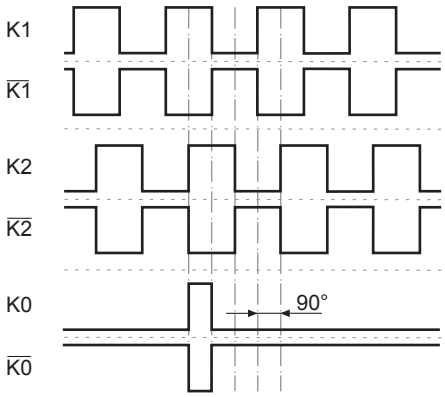


Terminal significance

+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)*



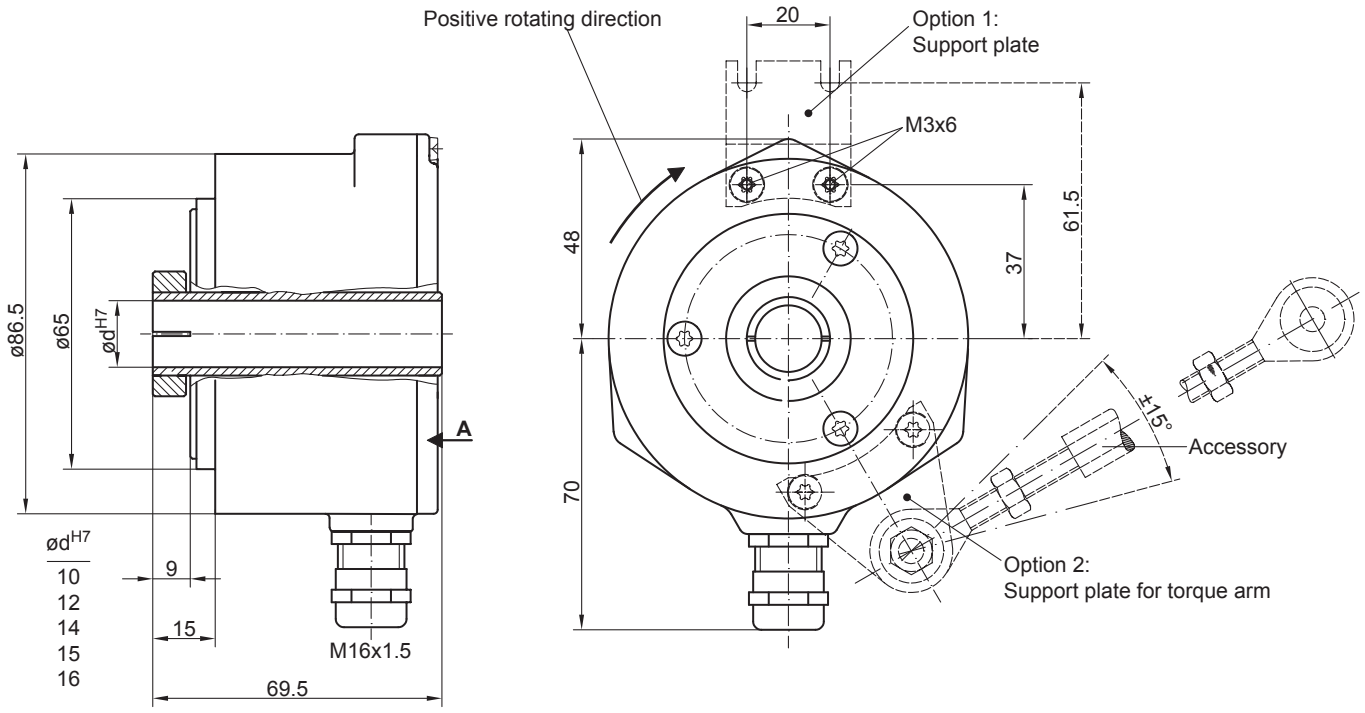
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Dimensions



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Ordering reference

	HOG8	DN	####	###	######
Product					
Incremental encoder	HOG8				
Output signals					
K1, K2, K0		DN			
Pulse number[1]					
8			8		
20			20		
25			25		
30			30		
36			36		
40			40		
50			50		
60			60		
62			62		
64			64		
100			100		
120			120		
176			176		
180			180		
192			192		
200			200		
250			250		
300			300		
360			360		
400			400		
500			500		
512			512		
600			600		
720			720		
900			900		
1000			1000		
1024			1024		
1042			1042		
1200			1200		
1250			1250		
2048			2048		
2500			2500		
3072			3072		
4096			4096		
5000			5000		
Voltage supply / output stage					
9...26 VDC / HTL (C)				C	
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	

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Ordering reference

	HOG8	DN	####	###	######
Shaft diameter					
Blind hollow shaft ø10 mm					10H7
Blind hollow shaft ø12 mm					12H7
Through hollow shaft ø14 mm					14H7
Blind hollow shaft ø15 mm					15H7
Blind hollow shaft ø16 mm					16H7

(1) Other pulse numbers on request.

Accessories

Mounting accessories	
11043628	Torque arm M6, length 67...70 mm
11004078	Torque arm M6, length 120...130 mm (≥71 mm)
11002915	Torque arm M6, length 425...460 mm (≥131 mm)
11054917	Torque arm M6 insulated, length 67...70 mm
11072795	Torque arm M6 insulated, length 120...130 mm (≥71 mm)
11082677	Torque arm M6 insulated, length 425...460 mm (≥131 mm)
11071904	Mounting kit for torque arm size M6

Connectors and cables	
	Sensor cable for encoders HEK 8

Diagnostic accessories	
11075858	Analyzer for encoders HENQ 1100
11075880	Analyzer for encoders HENQ 1100 with a power pack

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