Baumer
Passion for Sensors

Incremental encoders

HOG 71

Blind hollow shaft ø12 mm and ø14 mm
64...2048 pulses per revolution

Overview

- Blind hollow shaft ø12...14 mm
- Optical sensing method
- Compact, robust die-cast housing
- Inside connecting terminals
- Output stage HTL or TTL
- Output stage TTL with regulator UB 9...26 VDC
- High resistance to shock and vibrations
- High protection IP 66

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	64 … 2048
Phase shift	90 ° ±20°
Duty cycle	40…60 %
Reference signal	Zero pulse, width 90°
Sensing method	Optical
Output frequency	≤120 kHz
Output signals	A, B, C + 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)	ø60 mm

Technical data - mechanical design

Shaft type	ø12...14 mm (blind hollow shaft)
Admitted shaft load	≤30 N axial ≤40 N radial
Protection EN 60529	IP 66
Operating speed	≤10000 rpm (mechanical)
Operating torque typ.	1 Ncm
Rotor moment of inertia	55 gcm²
Material	Housing: aluminium die-cast Shaft: stainless steel
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
Explosion protection	II 3 G Ex ec IIC T4 Gc X (gas) II 3 D Ex tc IIIC T85°C Dc X (dust) (only with option ATEX)
Connection	Connecting terminal
Weight approx.	280 g

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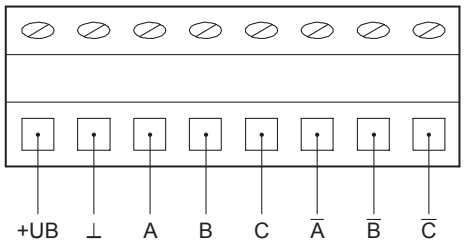
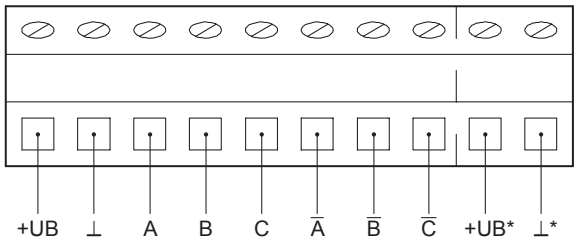
Terminal assignment

View A *(see dimension)*
Connecting terminal HTL



View A *(see dimension)*
Connecting terminal TTL



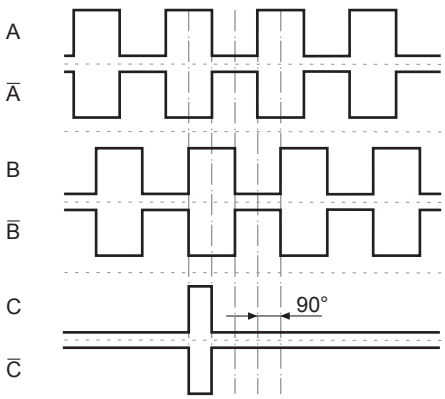
* Sensor

Terminal significance

+UB	Voltage supply
⊥	Ground
A	Output signal channel 1
$\overline{A}$	Output signal channel 1 inverted
B	Output signal channel 2 (offset by 90° to channel 1)
$\overline{B}$	Output signal channel 2 inverted
C	Zero pulse (reference signal)
$\overline{C}$	Zero pulse inverted

Output signals

HTL/TTL
At positive rotating direction *(see dimension)*



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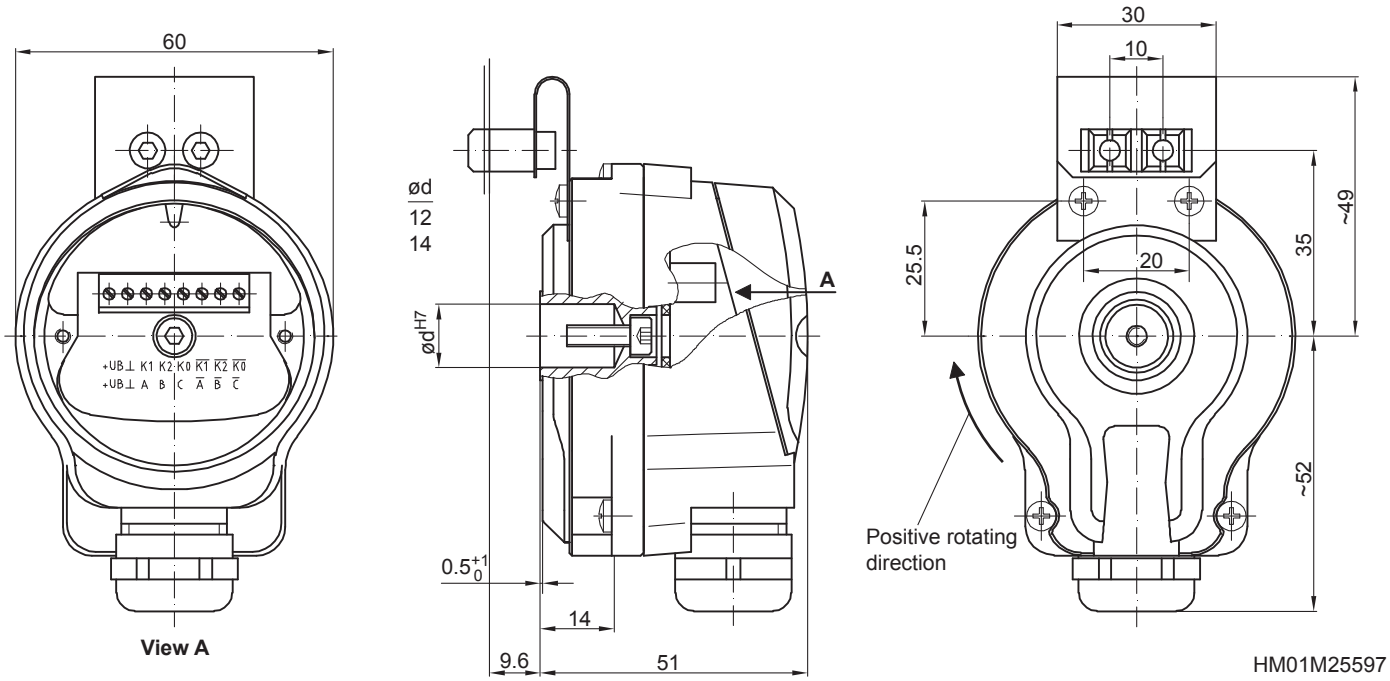
Dimensions



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Ordering reference

	HOG71	DN	####	###	######
Product					
Incremental encoder	HOG71				
Output signals					
A, B, C		DN			
Pulse number(1)					
64			64		
100			100		
180			180		
192			192		
200			200		
256			256		
360			360		
400			400		
500			500		
512			512		
720			720		
1000			1000		
1024			1024		
2048			2048		
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...26 VDC / output stage TTL with inverted signals				R	
Shaft diameter					
Blind hollow shaft ø12 mm					12H7
Through hollow shaft ø14 mm					14H7

(1) Other pulse numbers on request.