Baumer
Passion for Sensors

Incremental encoders

OG 9

Solid shaft with EURO flange B10

25...5000 pulses per revolution

Overview

- Encoder with solid shaft ø11 mm
- Optical sensing method
- EURO flange B10
- Output stage HTL with power linedriver
- Output stage TTL with regulator UB 9...26 VDC
- Operating temperature up to +100 °C



Technical data

Technical data - electrical ratings

Voltage supply	9...30 VDC 5 VDC ±5 % 9...26 VDC
Consumption w/o load	≤100 mA
Pulses per revolution	25 … 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-P (power linedriver) 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)	ø115 mm
Shaft type	ø11 mm solid shaft

Technical data - mechanical design

Admitted shaft load	≤250 N axial ≤350 N radial
Flange	EURO flange B10
Protection EN 60529	IP 55
Operating speed	≤12000 rpm (mechanical)
Operating torque typ.	1 Ncm
Rotor moment of inertia	280 gcm²
Material	Housing: aluminium die-cast Shaft: stainless steel
Operating temperature	-30...+100 °C -25...+100 °C (>3072 pulses)
Resistance	IEC 60068-2-6 Vibration 10 g, 10-2000 Hz IEC 60068-2-27 Shock 100 g, 6 ms
Corrosion protection	IEC 60068-2-52 Salt mist for ambient conditions C4 according to ISO 12944-2
Explosion protection	II 3 G Ex ec IIC T4 Gc (gas) II 3 D Ex tc IIIB T135°C Dc (dust) (only with option ATEX)
Connection	Terminal box
Weight approx.	980 g

2025-08-22 The product features and technical data specified do not express or imply any warranty. Technical modifications subject to change.

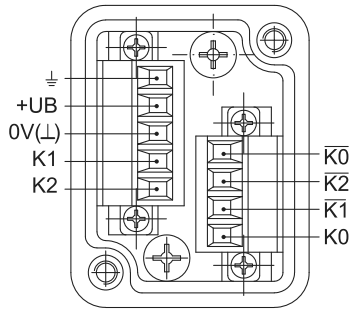
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Terminal assignment

View A *(see dimension)*
Connecting terminal terminal box

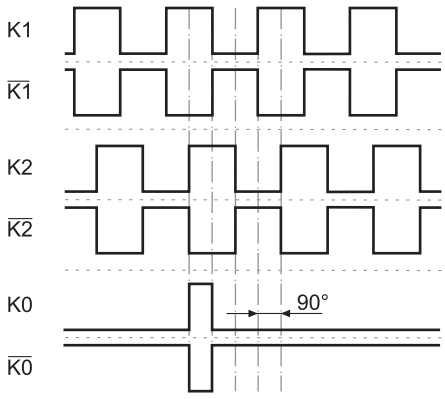


Terminal significance

+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)*



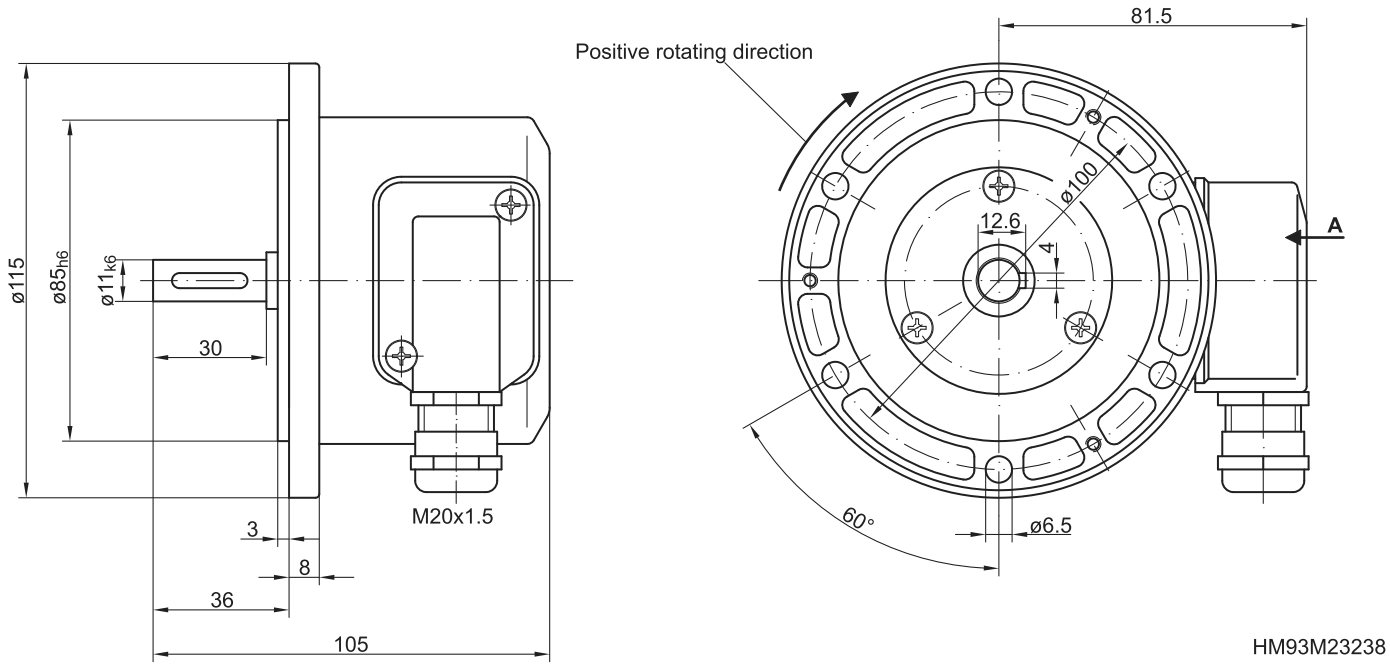
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Dimensions



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Ordering reference

	OG9	DN	####	###
Product				
Incremental encoder	OG9			
Output signals				
K1, K2, K0		DN		
Pulse number(1)				
25			25	
120			120	
128			128	
180			180	
256			256	
360			360	
500			500	
512			512	
720			720	
1000			1000	
1024			1024	
1250			1250	
2048			2048	
2500			2500	
3072			3072	
4096			4096	
5000			5000	
Voltage supply / output stage				
9...30 VDC / output stage HTL with inverted signals				I
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	
	Spring disk coupling K35 (shaft ø6...12 mm)
	Spring disk coupling K 50 (shaft ø11...16 mm)
11064874	Spring disk coupling K60 WD 11PF4 + 12PF4

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