

POG 90

Solid shaft with EURO flange B10

1024...10000 pulses per revolution

Overview

- Encoder with solid shaft $\varnothing 11$ mm
- EURO flange B10
- Large terminal box, turn by 180°
- Optical sensing method
- Max. 10000 pulses per revolution
- Output stage HTL or TTL
- Output stage TTL with regulator UB 9...26 VDC



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	1024 ... 10000
Phase shift	$90^\circ \pm 8^\circ$
Duty cycle	44...56 %
Reference signal	Zero pulse, width 90°
Sensing method	Optical
Output frequency	≤ 250 kHz
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)	$\varnothing 115$ mm
Shaft type	$\varnothing 11$ mm solid shaft
Admitted shaft load	≤ 250 N axial ≤ 350 N radial

Optional

- Second shaft end
- Housing foot (B3)

Technical data - mechanical design

Flange	EURO flange B10
Protection EN 60529	IP 66
Operating speed	≤ 10000 rpm (mechanical)
Operating torque typ.	2 Ncm
Rotor moment of inertia	320 gcm ²
Material	Housing: aluminium die-cast alloy and stainless steel Shaft: stainless steel
Operating temperature	$-20...+85^\circ\text{C}$
Resistance	IEC 60068-2-6 Vibration 10 g, 10-2000 Hz IEC 60068-2-27 Shock 100 g, 11 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 IIIC T135°C Dc (dust) (only with option ATEX)
Connection	Terminal box
Weight approx.	1.8 kg

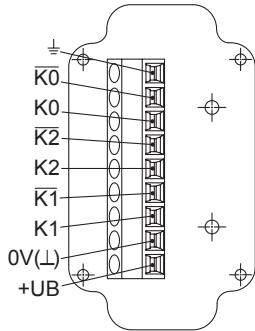
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Terminal assignment

View A (see dimension)

Connecting terminal terminal box, radial



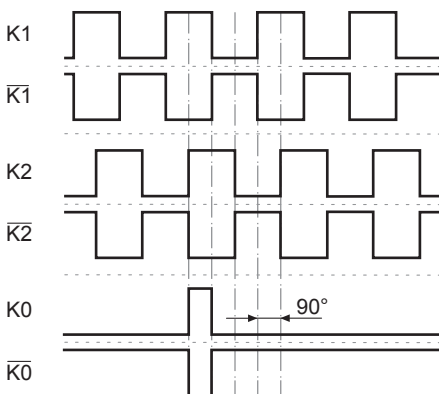
Terminal significance

+UB	Voltage supply
0V (L)	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

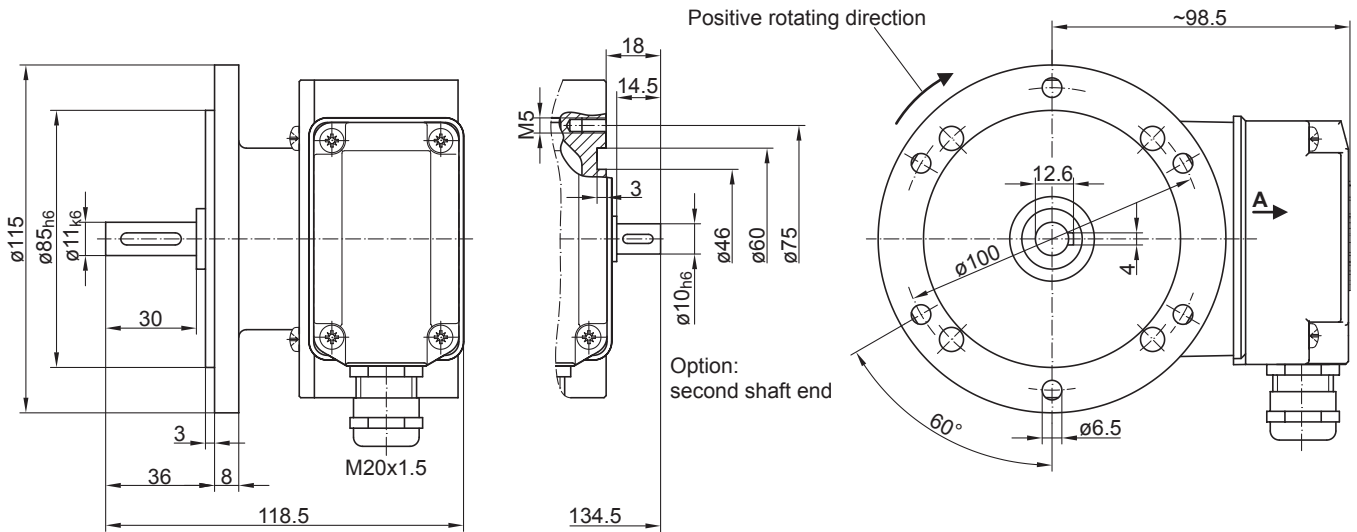
At positive rotating direction (see dimension)



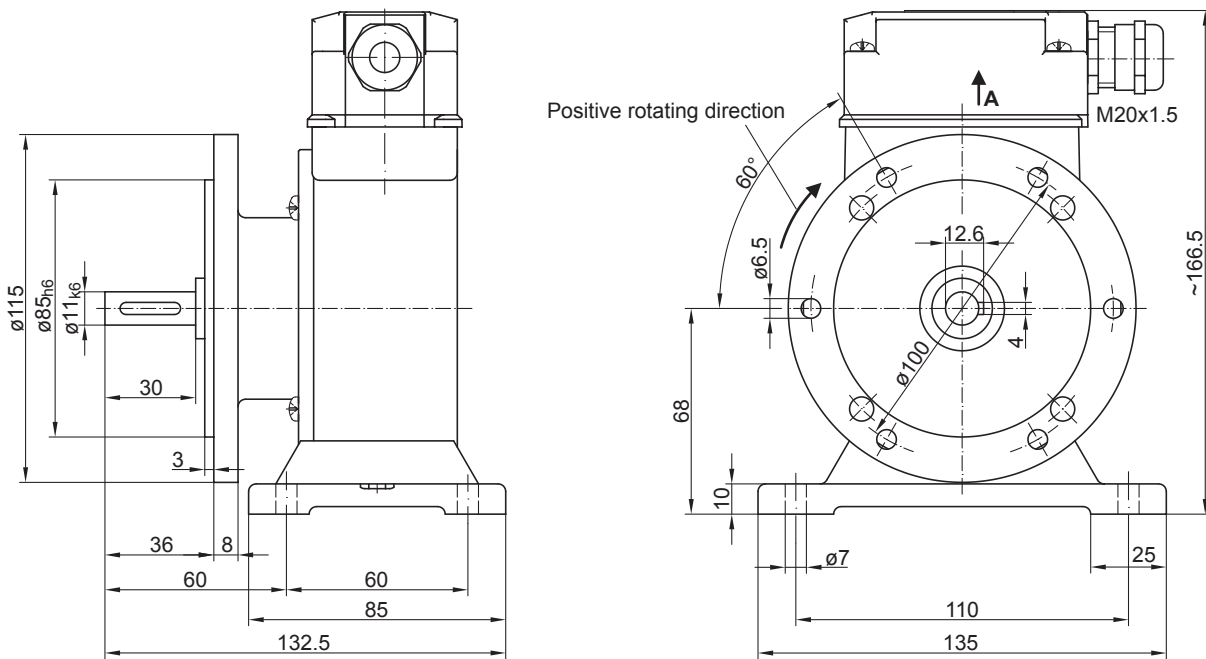
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Dimensions



Version with Euro flange (B10)



Version with Euro flange (B10) and housing foot (B3)

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Ordering reference

	POG90	DN	####	###	#####
Product	POG90				
Incremental encoder					
Output signals					
K1, K2, K0		DN			
Pulse number⁽¹⁾					
1024			1024		
2000			2000		
2048			2048		
2500			2500		
3072			3072		
3600			3600		
4096			4096		
5000			5000		
10000			10000		
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
Mounting type					
EURO flange B10					
Housing foot B3 + EURO flange B10					B3/B10

(1) Other pulse numbers on request.

Accessories

Mounting accessories

- Spring disk coupling K 35 (shaft ø6...12 mm)
- Spring disk coupling K 50 (shaft ø11...16 mm)
- Spring disk coupling K 60 (shaft ø11...22 mm)