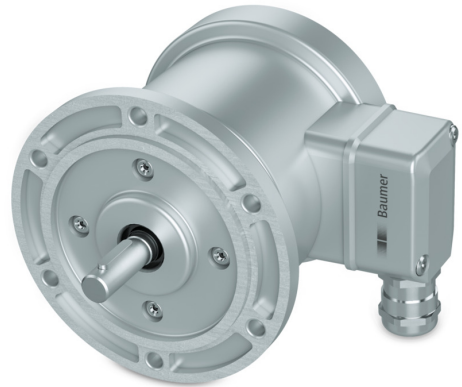


POG 86E

Solid shaft with EURO flange B10
500...5000 pulses per revolution

Overview

- Robust, compact housing
- Two bearings with large distance, one at each end
- High shaft load up to 350 N
- Shock resistant up to 300 g
- Highest operating speed 12000 rpm
- TTL output driver for cable length up to 550 m
- Terminal box, turn by 180°



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Technical data

Technical data - electrical ratings

Voltage supply	9...30 VDC 5 VDC $\pm 5\%$
Consumption w/o load	≤ 100 mA
Pulses per revolution	500 ... 5000
Phase shift	$90^\circ \pm 20^\circ$
Duty cycle	45...55 % 40...60 % (>3072 pulses)
Reference signal	Zero pulse, width 90°
Sensing method	Optical
Output frequency	≤ 170 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 / CSA

Technical data - mechanical design

Size (flange)	$\varnothing 115$ mm
Shaft type	$\varnothing 11$ mm solid shaft

Technical data - mechanical design

Admitted shaft load	≤ 250 N axial ≤ 350 N radial
Flange	EURO flange B10
Protection EN 60529	IP 56
Operating speed	≤ 12000 rpm (mechanical)
Operating torque typ.	2 Ncm
Rotor moment of inertia	200 gcm^2
Material	Housing: aluminium Shaft: stainless steel
Operating temperature	$-40...+100^\circ\text{C}$ $-25...+100^\circ\text{C}$ (>3072 pulses)
Resistance	IEC 60068-2-6 Vibration 10 g, 10-2000 Hz IEC 60068-2-27 Shock 300 g, 1 ms
Corrosion protection	Option: 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.	1.4 kg

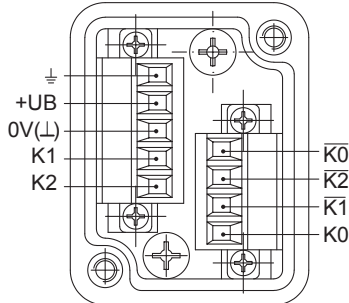
POG 86E

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Terminal assignment

View A (see dimension)

Connecting terminal terminal box



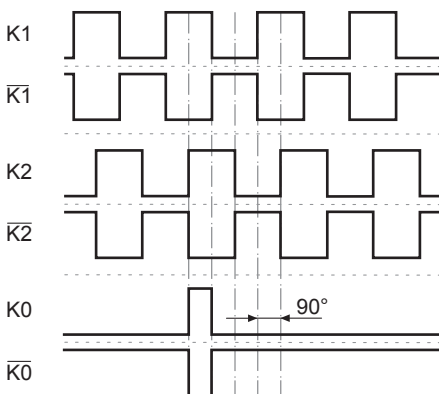
Terminal significance

+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)

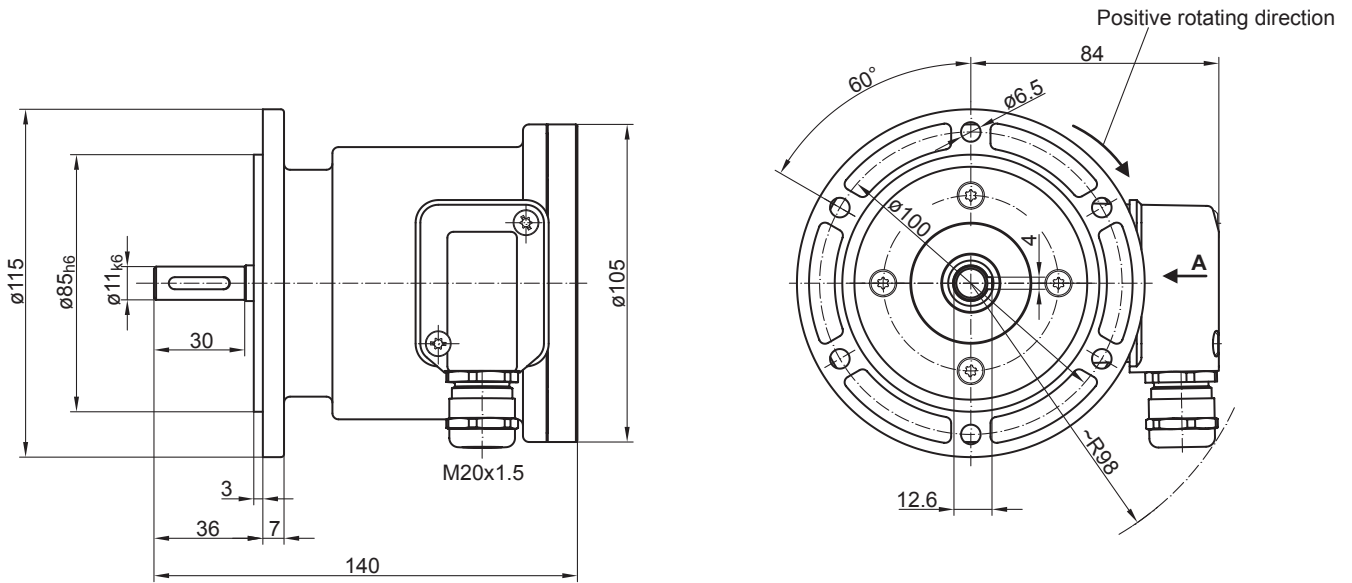


POG 86E

Solid shaft with EURO flange B10

500...5000 pulses per revolution

Dimensions



POG 86E

Solid shaft with EURO flange B10

500...5000 pulses per revolution

Ordering reference

	POG86E	T	N	1	DN	####	###	##
Product	Incremental encoder	POG86E						
Connection	1x terminal box, radial	T						
Insulation	Without		N					
Shaft diameter	ø11 mm solid shaft			1				
Output signals	K1, K2, K0				DN			
Pulse number⁽¹⁾								
500						500		
512						512		
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 ±5 % / TTL							T	
9...30 VDC / output stage TTL with inverted signals							R	
Corrosion protection								
Without								
Suitable for ambient conditions C4 according to ISO 12944-2								C4

(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)