

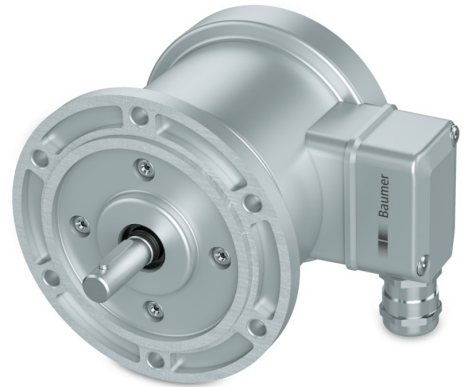
## POG 86E

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°


**HUBNER**  
**BERLIN**  
 A Baumer Brand

### Technical data

#### Technical data - electrical ratings

Voltage supply	9...30 VDC 5 VDC $\pm$ 5 %
Consumption w/o load	$\leq$ 100 mA
Pulses per revolution	500 ... 5000
Phase shift	90 ° $\pm$ 20°
Duty cycle	45...55 % 40...60 % (>3072 pulses)
Reference signal	Zero pulse, width 90°
Sensing method	Optical
Output frequency	$\leq$ 170 kHz $\leq$ 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	$\leq$ 250 N axial $\leq$ 350 N radial
Flange	EURO flange B10
Protection EN 60529	IP 56
Operating speed	$\leq$ 12000 rpm (mechanical)
Operating torque typ.	2 Ncm
Rotor moment of inertia	200 gcm <sup>2</sup>
Material	Housing: aluminium Shaft: stainless steel
Operating temperature	-40...+100 °C -25...+100 °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

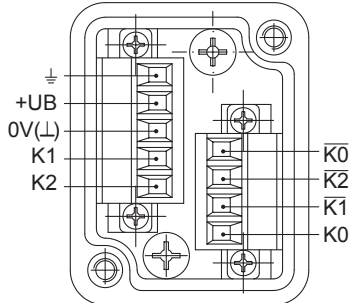
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## Terminal assignment

**View A** (see dimension)

Connecting terminal terminal box



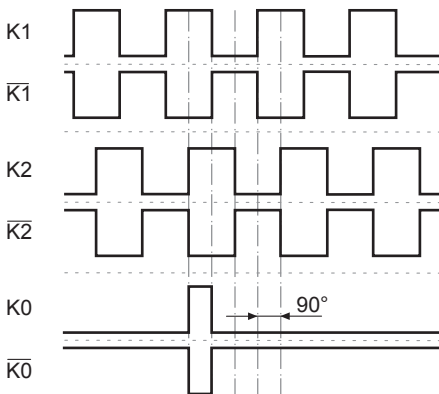
## Terminal significance

+UB	Voltage supply
0V (L)	Ground
⊥	Earth ground (housing)
K1	Output signal channel 1
$\bar{K}1$	Output signal channel 1 inverted
K2	Output signal channel 2 (offset by 90° to channel 1)
$\bar{K}2$	Output signal channel 2 inverted
K0	Zero pulse (reference signal)
$\bar{K}0$	Zero pulse inverted

## Output signals

**HTL/TTL**

At positive rotating direction (see dimension)

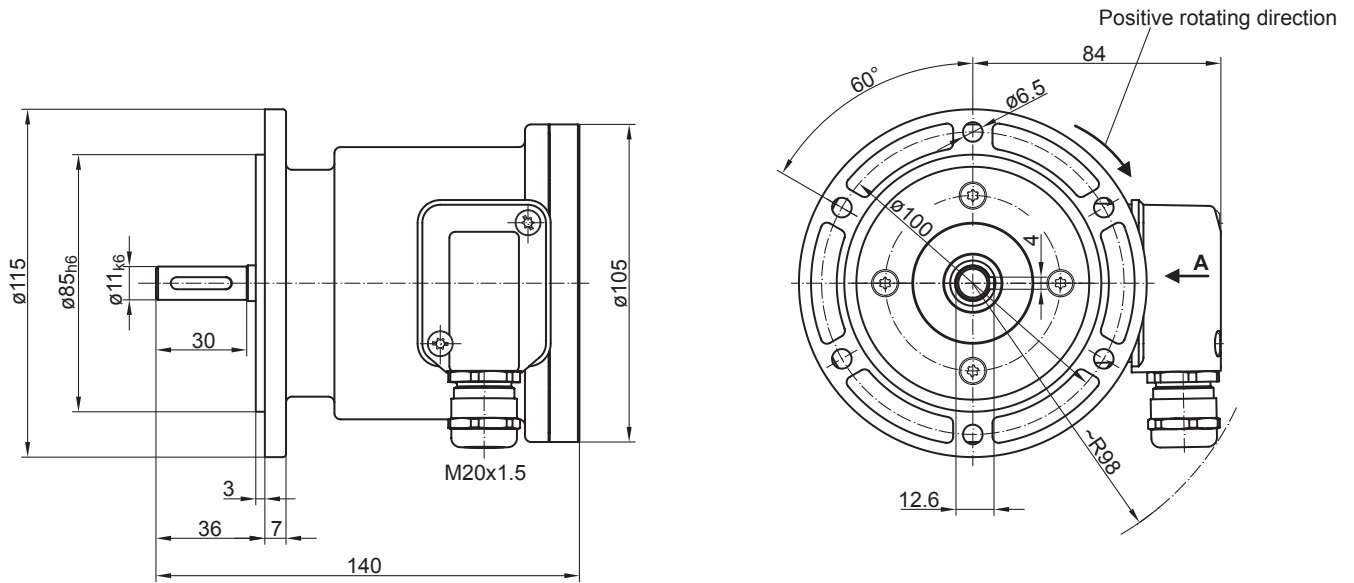


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### Dimensions



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## Ordering reference

	POG86E	T	N	1	DN	####	###	##
<b>Product</b>	POG86E							
Incremental encoder	POG86E							
<b>Connection</b>								
1x terminal box, radial		T						
<b>Insulation</b>								
Without			N					
<b>Shaft diameter</b>								
ø11 mm solid shaft				1				
<b>Output signals</b>								
K1, K2, K0					DN			
<b>Pulse number<sup>(1)</sup></b>								
500						500		
512						512		
1000						1000		
1024						1024		
1250						1250		
2048						2048		
2500						2500		
3072						3072		
4096						4096		
5000						5000		
<b>Voltage supply / output stage</b>								
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
<b>Corrosion protection</b>								
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)