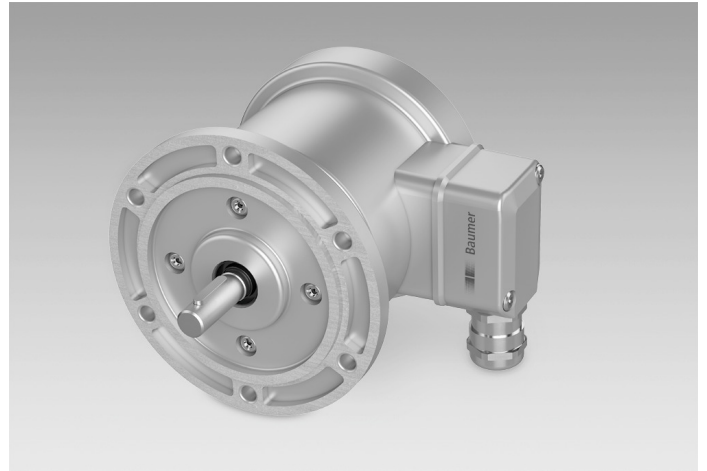


## POG 86E

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	$\leq 100$ 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 $90^\circ$
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

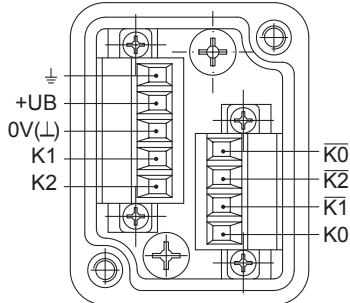
## POG 86E

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

### Terminal assignment

**View A** (see dimension)

Connecting terminal terminal box



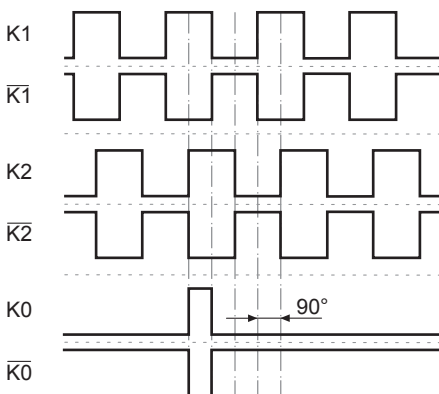
### Terminal significance

+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**

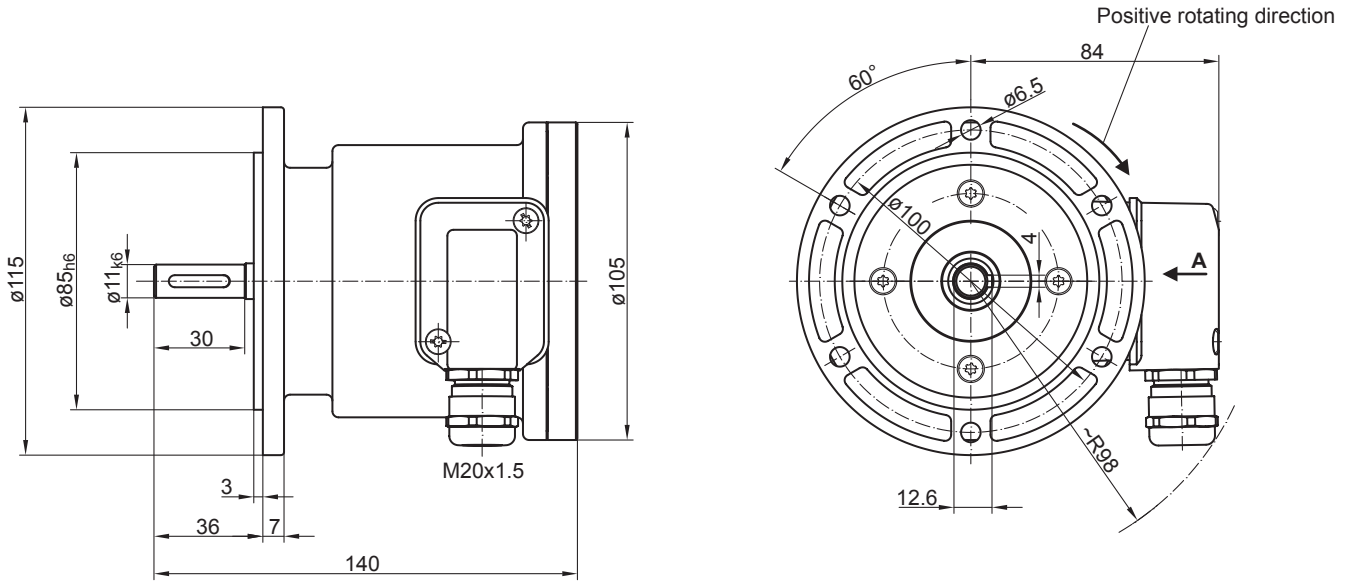
At positive rotating direction (see dimension)



## 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	####	###	##
<b>Product</b>	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)

#### Diagnostic accessories

11075858 Analyzer for encoders HENQ 1100

11075880 Analyzer for encoders HENQ 1100 B