

# Incremental encoders

## Solid shaft with EURO flange B10

### 1024...10000 pulses per revolution



**RAD ELECTRIC Int.**  
www.radelectric.co

## POG 90



POG 90

### Features

- 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

### Optional

- Second shaft end
- Housing foot (B3)

### Technical data - electrical ratings

Voltage supply	9...30 VDC 5 VDC $\pm 5$ % 9...26 VDC
Consumption w/o load	$\leq 100$ mA
Pulses per revolution	1024...10000
Phase shift	90° $\pm 8$ °
Duty cycle	44...56 %
Reference signal	Zero pulse, width 90°
Sensing method	Optical
Output frequency	$\leq 250$ kHz
Output signals	K1, K2, K0 + inverted
Output stages	HTL TTL/RS422
Interference immunity	EN 61000-6-2
Emitted interference	EN 61000-6-3
Approvals	CE, UL approval / E256710

### Technical data - mechanical design

Size (flange)	$\varnothing 115$ mm
Shaft type	$\varnothing 11$ mm solid shaft
Admitted shaft load	$\leq 250$ N axial $\leq 350$ N radial
Flange	EURO flange B10
Protection DIN EN 60529	IP 66
Operating speed	$\leq 10000$ rpm (mechanical)
Operating torque typ.	2 Ncm
Rotor moment of inertia	320 gcm <sup>2</sup>
Materials	Housing: aluminium die-cast alloy and stainless steel Shaft: stainless steel
Operating temperature	-20...+85 °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 nA IIC T4 Gc (gas) II 3 D Ex tc IIIC T135°C Dc (dust)
Connection	Terminal box
Weight approx.	1.8 kg

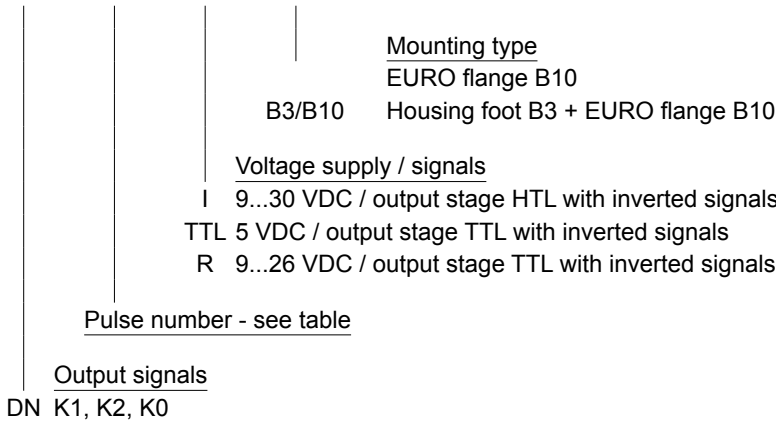
Subject to modification in technic and design. Errors and omissions excepted.



**Part number**

**Incremental encoder**

POG90 **DN**



**Pulse number**

1024	2048	3072	4096	10000
2000	2500	3600	5000	

Other pulse numbers on request.

**Accessories**

**Connectors and cables**

HEK 8 Sensor cable for encoders

**Mounting accessories**

K 35 Spring washer coupling for solid shaft  $\varnothing 6...12$  mm

K 50 Spring washer coupling for solid shaft  $\varnothing 11...16$  mm

K 60 Spring washer coupling for solid shaft  $\varnothing 11...22$  mm

**Diagnostic accessories**

11075858 Analyzer for encoders HENQ 1100

Subject to modification in technic and design. Errors and omissions excepted.

# Incremental encoders

## Solid shaft with EURO flange B10

### 1024...10000 pulses per revolution

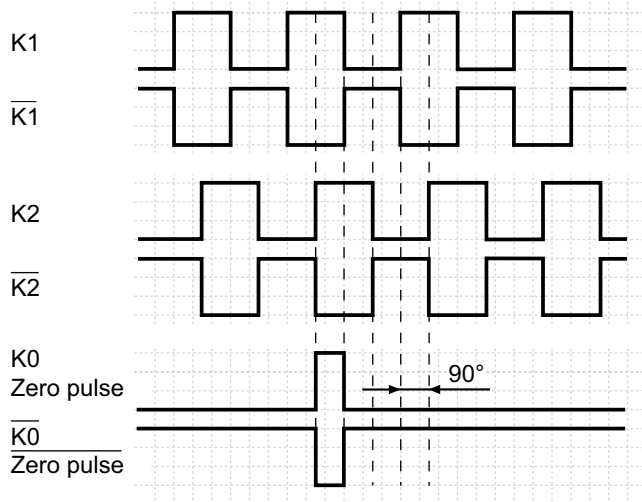


RAD ELECTRIC Int.  
www.radelectric.co

## POG 90

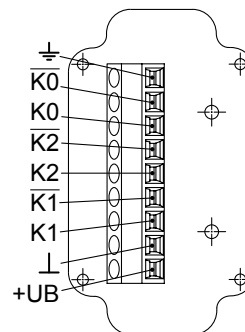
### Output signals

At positive rotating direction



### Terminal assignment

View A - Connecting terminal terminal box



### Terminal significance

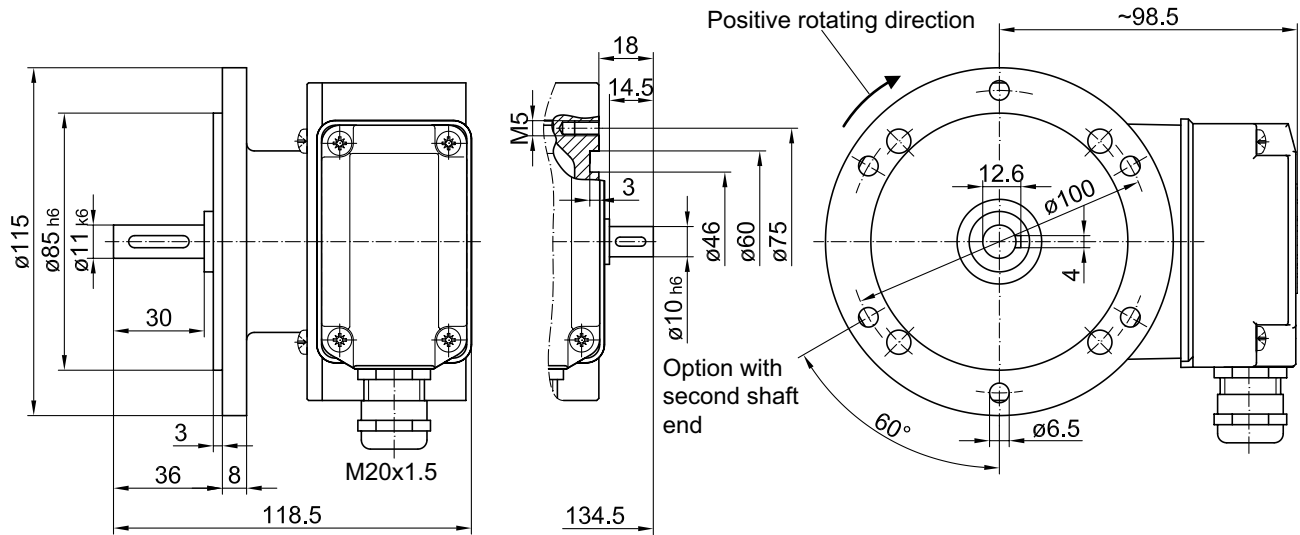
+UB	Voltage supply (for the device)
⊥; ⚡; GND; 0 V	Ground (for the signals)
⊕; ⚡	Earth ground (housing)
K1; A; A+	Output signal channel 1
K1-bar; A-bar; A-	Output signal channel 1 inverted
K2; B; B+	Output signal channel 2 (offset by 90° to channel 1)
K2-bar; B-bar; B-	Output signal channel 2 (offset by 90° to channel 1) inverted
K0; C; R; R+	Zero pulse (reference signal)
K0-bar; C-bar; R-bar; R-	Zero pulse (reference signal) inverted
dnu	Do not use

Subject to modification in technic and design. Errors and omissions excepted.



## Dimensions

### Version with Euro flange (B10)



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

