

# Incremental encoders

## Solid shaft $\varnothing 6$ mm with synchro flange

### 100...1024 pulses per revolution

OG 71



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#### Features

- Robust aluminium housing
- Encoder with solid shaft  $\varnothing 6$  mm
- Optical sensing method
- Synchro flange
- Very high resistance to shock
- Output stage HTL or TTL
- Output stage TTL with regulator UB 9...26 VDC

#### Technical data - electrical ratings

Voltage supply	9...26 VDC 5 VDC $\pm 5$ %
Consumption w/o load	$\leq 100$ mA
Pulses per revolution	100...1024
Phase shift	$90^\circ \pm 20^\circ$
Scan ratio	40...60 %
Reference signal	Zero pulse, width $90^\circ$
Sensing method	Optical
Output frequency	$\leq 120$ kHz
Output signals	A, B, C + 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)	$\varnothing 58$ mm
Shaft type	$\varnothing 6$ mm solid shaft
Admitted shaft load	$\leq 30$ N axial $\leq 40$ N radial
Flange	Synchro flange
Protection DIN EN 60529	IP 66
Operating speed	$\leq 10000$ rpm (mechanical)
Operating torque typ.	1 Ncm
Rotor moment of inertia	25 gcm <sup>2</sup>
Materials	Housing: aluminium die-cast Shaft: stainless steel
Operating temperature	$-20...+85$ °C
Resistance	IEC 60068-2-6 Vibration 10 g, 10-2000 Hz IEC 60068-2-27 Shock 300 g, 6 ms
Explosion protection	II 3 G Ex nA IIC T4 Gc X (gas) II 3 D Ex tc IIIC T85°C Dc X (dust)
Connection	Connecting terminal
Weight approx.	300 g



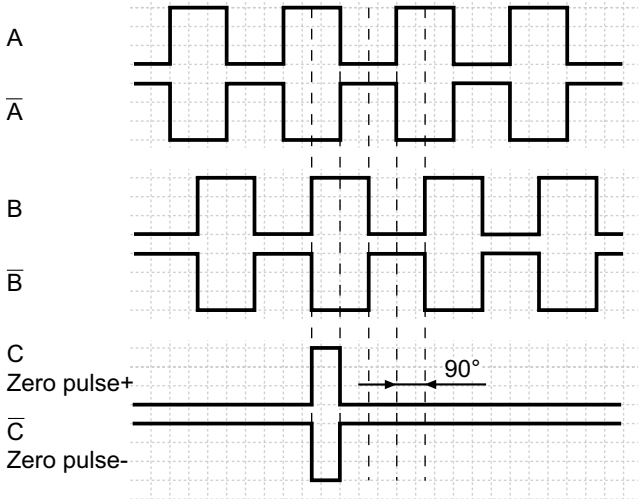
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## Output signals

At positive rotating direction

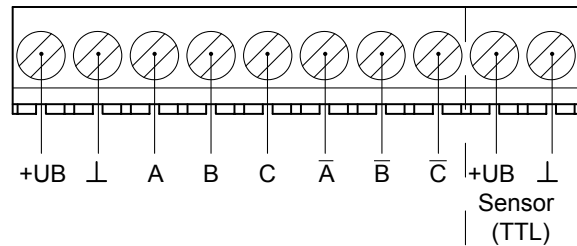


## Terminal significance

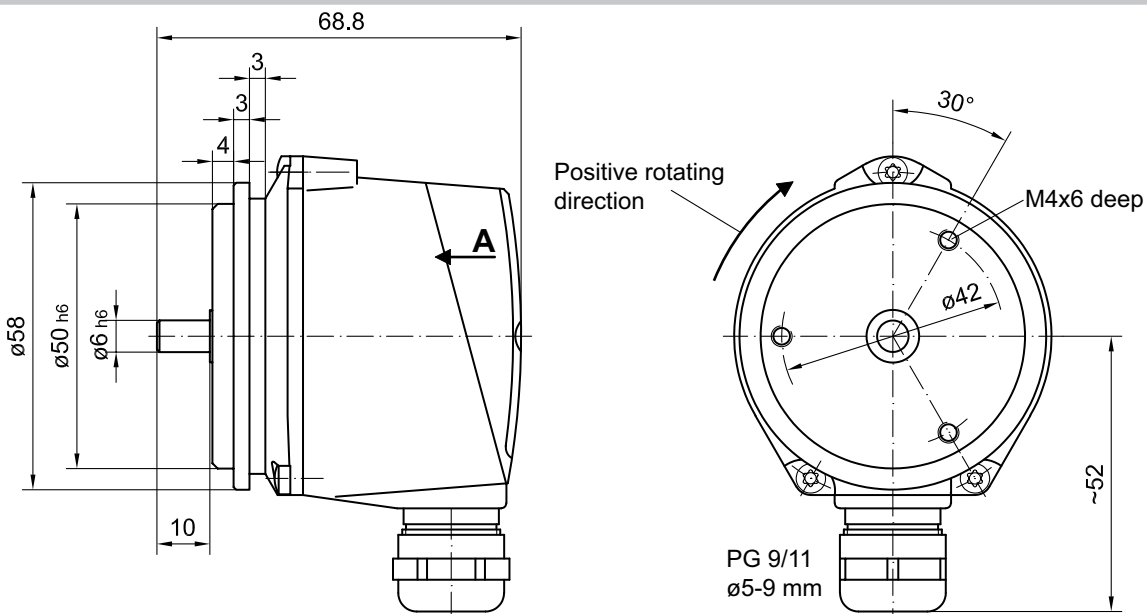
+UB	Voltage supply (for the encoder)
$\perp$ ; $\downarrow$ ; GND; 0V	Ground (for the signals)
$\perp$ ; $\nearrow$	Earth ground (chassis)
A; A+; K1	Output signal channel 1
$\bar{A}$ ; A-; $\bar{K}1$	Output signal channel 1 inverted
B; B+; K2	Output signal channel 2 (offset by 90° to channel 1)
$\bar{B}$ ; B-; $\bar{K}2$	Output signal channel 2 (offset by 90° to channel 1) inverted
C; R; R+; K0	Zero pulse (reference signal)
$\bar{C}$ ; $\bar{R}$ ; R-; $\bar{K}0$	Zero pulse (reference signal) inverted

## Terminal assignment

View A - Connecting terminal



## Dimensions



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