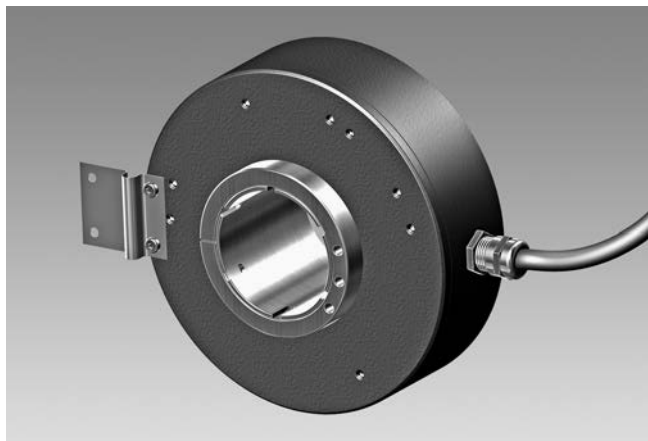


# Incremental encoders

Through hollow shaft  $\varnothing 30...45$  mm  
600...1200 pulses per revolution

## HOG 12



HOG 12

### Features

- Through hollow shaft  $\varnothing 30...45$  mm
- Optical sensing method
- Robust light-metal housing
- 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	600...1200
Phase shift	$90^\circ \pm 20^\circ$
Duty cycle	40...60 %
Reference signal	Zero pulse, width $90^\circ$
Sensing method	Optical
Output frequency	$\leq 120$ 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)	$\varnothing 125$ mm
Shaft type	$\varnothing 30...45$ mm (through hollow shaft)
Admitted shaft load	$\leq 30$ N axial $\leq 40$ N radial
Protection DIN EN 60529	IP 54
Operating speed	$\leq 6000$ rpm (mechanical)
Operating torque typ.	10 Ncm
Rotor moment of inertia	1.3 kgcm <sup>2</sup>
Materials	Housing: aluminium alloy Shaft: stainless steel
Operating temperature	$-30...+85$ °C
Resistance	IEC 60068-2-6 Vibration 10 g, 10-2000 Hz IEC 60068-2-27 Shock 100 g, 6 ms
Connection	Cable 1 m
Weight approx.	1 kg



# Incremental encoders

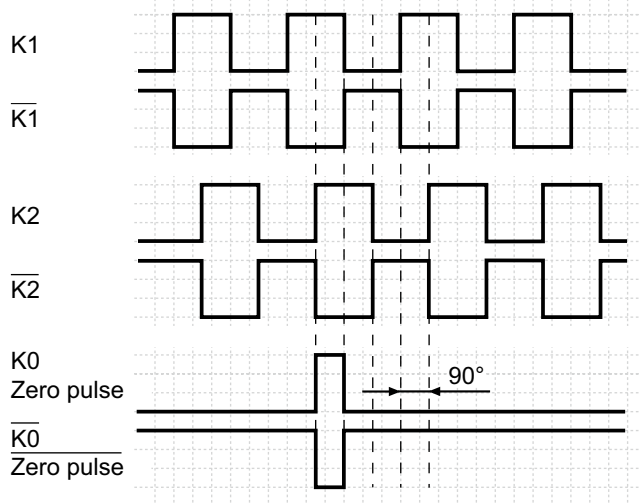
Through hollow shaft  $\varnothing 30 \dots 45$  mm

600...1200 pulses per revolution

## HOG 12

### Output signals

At positive rotating direction



### Terminal assignment

#### Connecting cable assignment

Wire colour	Assignment
Red	+UB
Blue	$\perp$
White	K1
Brown	$\overline{K1}$
Green	K2
Yellow	$\overline{K2}$
Grey	K0
Pink	$\overline{K0}$

### Terminal significance

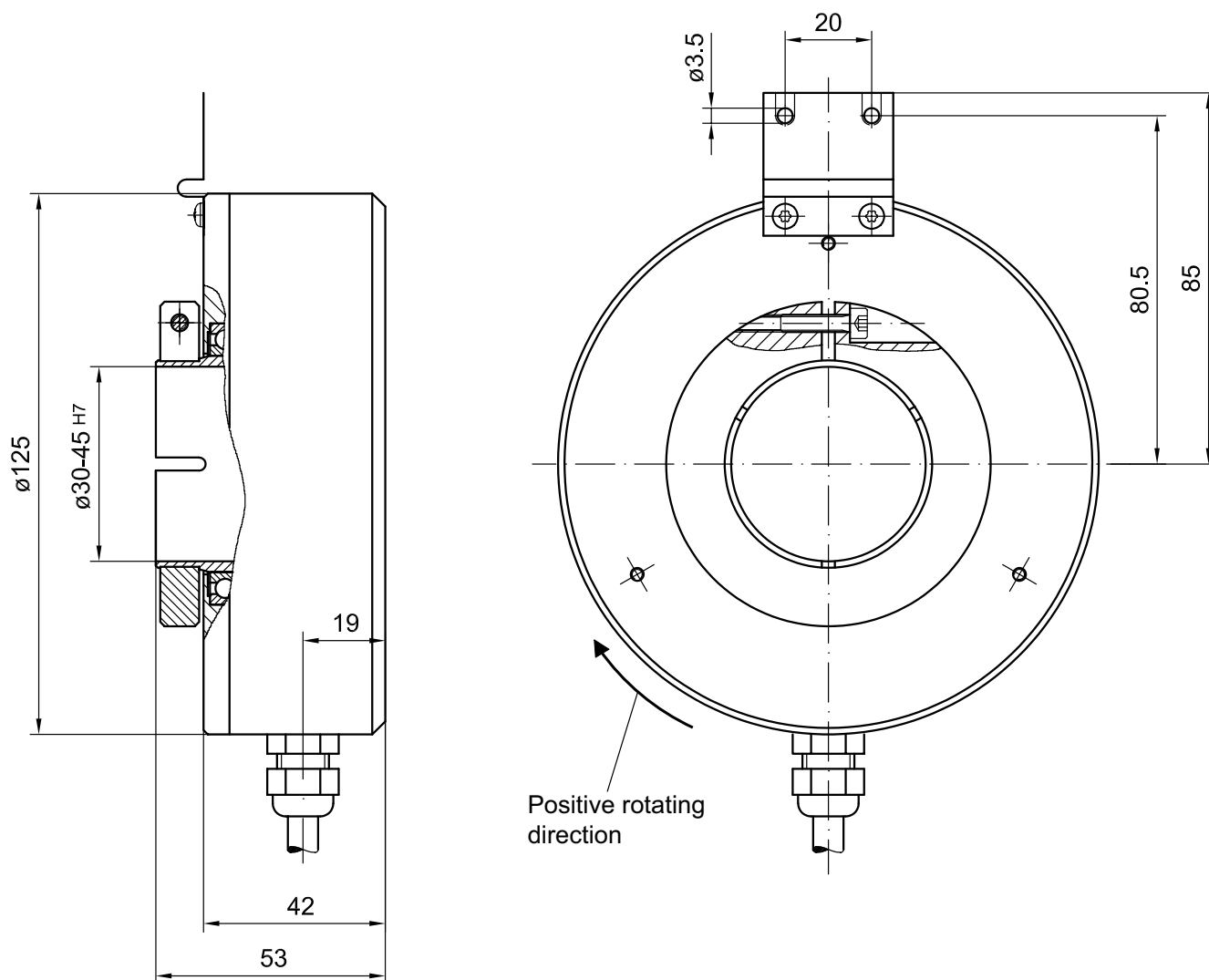
+UB	Voltage supply (for the device)
$\perp$ ; $\downarrow$ ; GND; 0 V	Ground (for the signals)
$\oplus$ ; $\rightarrow$	Earth ground (housing)
K1; A; A+	Output signal channel 1
$\overline{K1}$ ; $\overline{A}$ ; A-	Output signal channel 1 inverted
K2; B; B+	Output signal channel 2 (offset by 90° to channel 1)
$\overline{K2}$ ; $\overline{B}$ ; B-	Output signal channel 2 (offset by 90° to channel 1) inverted
K0; C; R; R+	Zero pulse (reference signal)
$\overline{K0}$ ; $\overline{C}$ ; $\overline{R}$ ; R-	Zero pulse (reference signal) inverted
dnu	Do not use

# Incremental encoders

Through hollow shaft  $\varnothing 30\text{...}45\text{ mm}$   
600...1200 pulses per revolution

HOG 12

## Dimensions



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