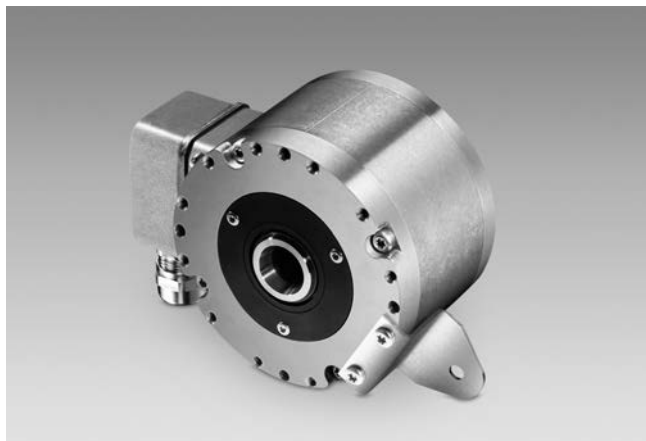


# Incremental encoders

Insulated blind hollow shaft  $\varnothing 12...16$  mm, cone shaft  $\varnothing 17$  mm

500...2500 pulses per revolution

## HOG 86E



HOG 86E T

### Features

- Robust, compact housing
- Two bearings with large distance, one at each end
- High shaft load up to 450 N
- Shock resistant up to 250 g
- Shaft insulation up to 2.8 kV
- Highest operating speed 10000 rpm
- TTL output driver for cable length up to 550 m
- Terminal box, turn by 180°

### Technical data - electrical ratings

Voltage supply	9...30 VDC 5 VDC $\pm 5$ %
Consumption w/o load	$\leq 100$ mA
Pulses per revolution	500...2500
Phase shift	$90^\circ \pm 20^\circ$
Scan ratio	45...55 %
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
Shaft insulation	2.8 kV
Transmission length	$\leq 350$ m at 100 kHz (HTL-P) $\leq 550$ m at 100 kHz (TTL)
Interference immunity	EN 61000-6-2
Emitted interference	EN 61000-6-3
Approvals	CE, UL/ CSA approval / E256710

### Technical data - mechanical design

Size (flange)	$\varnothing 99$ mm
Shaft type	$\varnothing 12...16$ mm (blind hollow shaft) $\varnothing 17$ mm (cone shaft 1:10)
Admitted shaft load	$\leq 350$ N axial $\leq 450$ N radial
Motor shaft tolerance	0.2 mm radial
Protection DIN EN 60529	IP 66
Operating speed	$\leq 10000$ rpm (mechanical)
Operating torque	$\leq 6$ Ncm
Rotor moment of inertia	160 gcm <sup>2</sup>
Materials	Housing: aluminium Shaft: stainless steel
Operating temperature	$-40...+100$ °C
Resistance	IEC 60068-2-6 Vibration 15 g, 10-2000 Hz IEC 60068-2-27 Shock 250 g, 6 ms
Corrosion protection	IEC 60068-2-52 Salt mist
Explosion protection	II 3 G Ex nA IIC T4 Gc (gas) II 3 D Ex tc IIIC T135°C Dc (dust)
Connection	Terminal box Flange connector M23, 12-pin
Weight approx.	1.3 kg

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

# Incremental encoders

## Insulated blind hollow shaft $\varnothing 12...16$ mm, cone shaft $\varnothing 17$ mm 500...2500 pulses per revolution

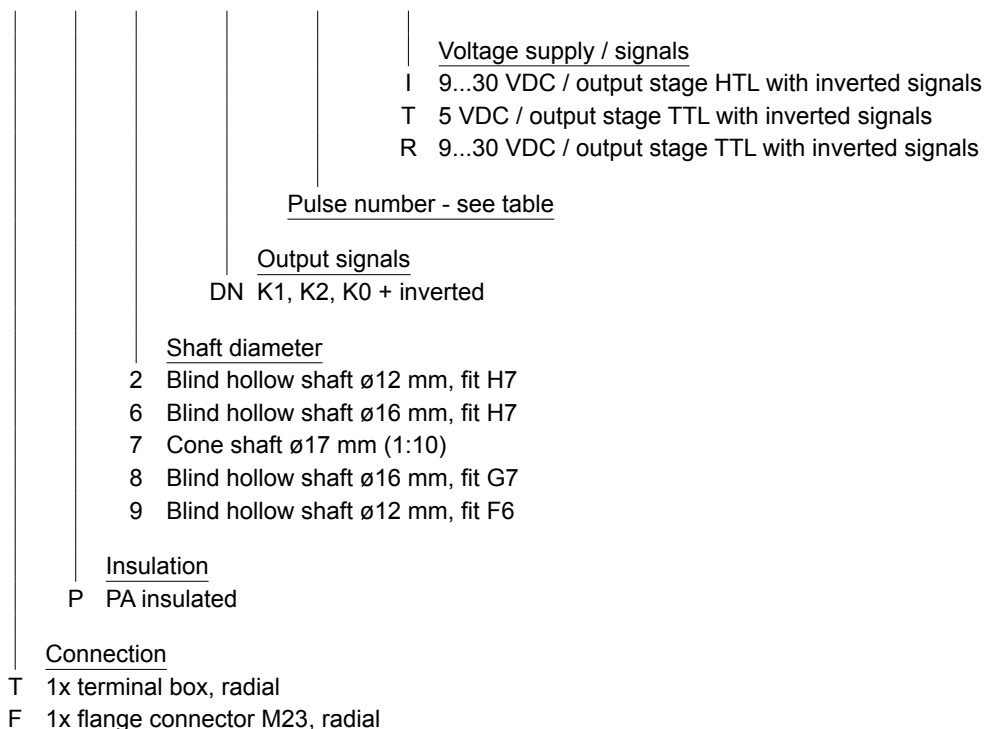
**HOG 86E**

### Part number

#### Incremental encoder

HOG86E 

	P			DN			
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### Pulse number

500	1000	1250	2500
512	1024	2048	

Other pulse numbers on request.

### Accessories

#### Connectors and cables

HEK 8	Sensor cable for encoders
11068577	Mating connector M23, solder version, 12-pin, CCW

#### Mounting accessories

11077087	Mounting and dismantling set
11071906	Mounting kit earthing strap
DMS 6	Torque arm size M6
11071904	Mounting kit for torque arm size M6

#### Diagnostic accessories

HENQ 1100	Analyzer for encoders
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# Incremental encoders

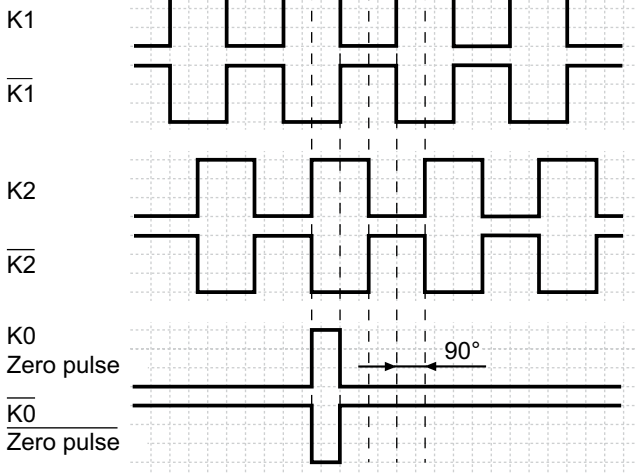
Insulated blind hollow shaft  $\varnothing 12...16$  mm, cone shaft  $\varnothing 17$  mm

500...2500 pulses per revolution

## HOG 86E

### Output signals

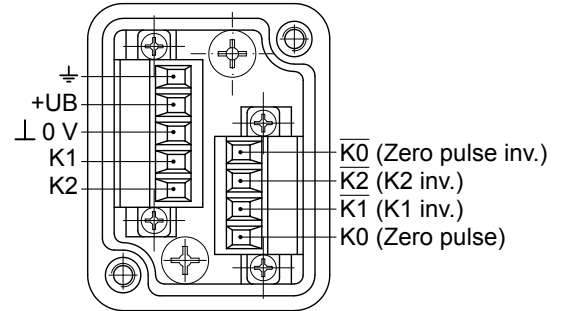
At positive rotating direction



### Terminal assignment

#### HOG 86E T - View A

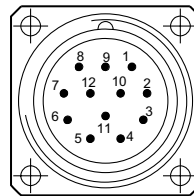
Connecting terminal terminal box



#### HOG 86E F - View B

Flange connector M23, 12-pin, male, CW

Pin	Assignment
1	$\overline{K2}$ (K2 inv.)
2	Do not use
3	K0 (Zero pulse)
4	$\overline{K0}$ (Zero pulse inv.)
5	K1
6	$\overline{K1}$ (K1 inv.)
7	Do not use
8	K2
9	Do not use
10	0 V $\perp$
11	Do not use
12	+UB



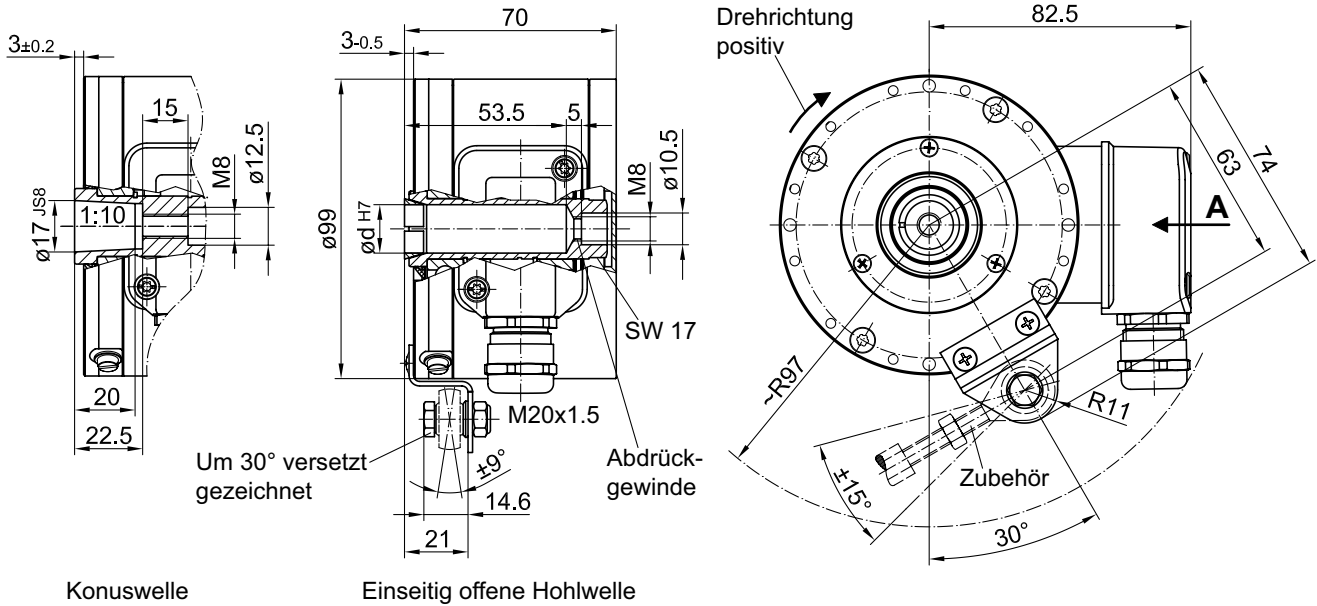
# Incremental encoders

Insulated blind hollow shaft  $\varnothing 12...16$  mm, cone shaft  $\varnothing 17$  mm  
500...2500 pulses per revolution

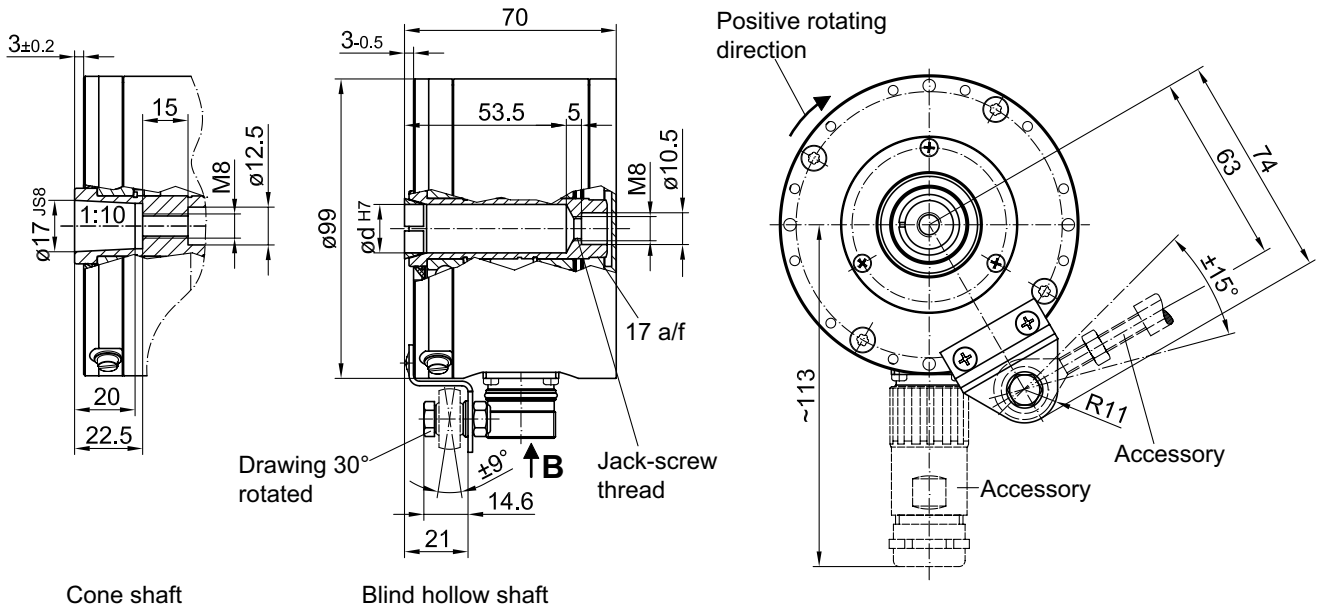
HOG 86E

## Dimensions

### HOG 86E T - Version with radial terminal box



### HOG 86E F - Version with radial connector M23



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