

## HOG 22

Through hollow shaft  $\varnothing 80 \dots 115$  mm  
720...4000 pulses per revolution

### Overview

- Optical sensing method
- Robust light-metal housing
- Output stage HTL or TTL
- Output stage TTL with regulator UB 9...26 VDC
- Large terminal box, turn by 180°



### 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	720 ... 4000
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
Approval	CE UL approval / E217823

#### Technical data - mechanical design

Size (flange)	$\varnothing 227$ mm
Shaft type	$\varnothing 80 \dots 115$ mm (through hollow shaft)
Admitted shaft load	$\leq 450$ N axial $\leq 700$ N radial

#### Technical data - mechanical design

Protection EN 60529	IP 54 IP 56 (option)
Operating speed	$\leq 3800$ rpm (mechanical)
Operating torque typ.	50 Ncm
Rotor moment of inertia	102 kgcm <sup>2</sup> ( $\varnothing 100$ )
Material	Housing: aluminium Shaft: stainless steel
Operating temperature	$-30 \dots +85^\circ\text{C}$
Resistance	IEC 60068-2-6 Vibration 10 g, 10-2000 Hz IEC 60068-2-27 Shock 200 g, 6 ms
Corrosion protection	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 2x terminal box (with option M)
Weight approx.	8.6 kg ( $\varnothing 100$ )

### Optional

- Redundant sensing (option M)
- Increased protection IP 56
- Protection against induced shaft currents

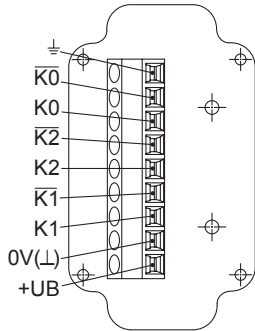
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## Terminal assignment

**View A** (see dimension)

Connecting terminal terminal box, radial



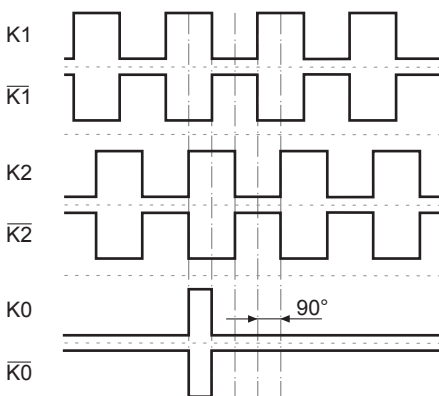
## Terminal significance

+UB	Voltage supply
0V (L)	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
dnu	Do not use

## Output signals

**HTL/TTL**

At positive rotating direction (see dimension)





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## Ordering reference

	HOG22	#	DN	####	###	#####	KLK	####	#
<b>Product</b>	Incremental encoder	HOG22							
<b>Redundant sensing</b>	Without redundant sensing								
	With redundant sensing		M						
<b>Output signals</b>	K1, K2, K0		DN						
<b>Pulse number<sup>(1)</sup></b>	720			720					
	1800			1800					
	2048			2048					
	4000			4000					
<b>Voltage supply / output stage</b>	9...30 VDC / output stage HTL with inverted signals					I			
	5 VDC / output stage TTL with inverted signals					TTL			
	9...30 VDC / output stage TTL with inverted signals					R			
<b>Shaft diameter</b>	Through hollow shaft ø80 mm							80H7	
	Through hollow shaft ø85 mm							85H7	
	Through hollow shaft ø90 mm							90H7	
	Through hollow shaft ø93 mm							93H7	
	Through hollow shaft ø95 mm							95H7	
	Through hollow shaft ø100 mm							100H7	
	Through hollow shaft ø105 mm							105H7	
	Through hollow shaft ø110 mm							110H7	
	Through hollow shaft ø115 mm							115H7	
<b>Connection</b>	Terminal box, radial							KLK	
<b>Protection</b>	IP 54								IP54
	IP 56								IP56
<b>Insulation</b>	Without								
	Protection against induced shaft currents								isol.

(1) Other pulse numbers on request.

## Accessories

### Mounting accessories

11054922	Torque arm M12, length 145...170 mm
11054921	Torque arm M12, length 180...205 mm
11072741	Torque arm M12, length 480...540 mm (≥200 mm)
11054924	Torque arm M12 insulated, length 145...170 mm
11072723	Torque arm M12 insulated, length 480...540 mm (≥200 mm)
11069336	Mounting kit for torque arm size M12 and an earthing strap