

# Incremental encoders

## Blind hollow shaft $\varnothing 12$ mm and $\varnothing 14$ mm

### 64...2048 pulses per revolution

## HOG 71



HOG 71

### Features

- Blind hollow shaft  $\varnothing 12...14$  mm
- Optical sensing method
- Compact, robust die-cast housing
- Inside connecting terminals
- Output stage HTL or TTL
- Output stage TTL with regulator UB 9...26 VDC
- High resistance to shock and vibrations
- High protection IP 66

### Technical data - electrical ratings

Voltage supply	9...26 VDC 5 VDC $\pm 5$ %
Consumption w/o load	$\leq 100$ mA
Pulses per revolution	64...2048
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)	$\varnothing 60$ mm
Shaft type	$\varnothing 12...14$ mm (blind hollow shaft)
Admitted shaft load	$\leq 30$ N axial $\leq 40$ N radial
Protection DIN EN 60529	IP 66
Operating speed	$\leq 10000$ rpm (mechanical)
Operating torque typ.	1 Ncm
Rotor moment of inertia	55 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 100 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.	280 g

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#### Part number

#### Incremental encoder

HOG71 **DN**

Shaft diameter  
 12H7 Blind hollow shaft  $\varnothing 12$  mm  
 14H7 Blind hollow shaft  $\varnothing 14$  mm  
 Voltage supply / signals  
 CI 9...26 VDC / output stage HTL (C) with inverted signals  
 TTL 5 VDC / output stage TTL with inverted signals  
 R 9...26 VDC / output stage TTL with inverted signals  
 Pulse number - see table  
 Output signals  
 DN A, B, C + inverted

#### Accessories

#### Connectors and cables

HEK 8 Sensor cable for encoders

#### Diagnostic accessories

HENQ 1100 Analyzer for encoders

#### Pulse number

64	192	360	512	1024
100	200	400	720	2048
180	256	500	1000	

Other pulse numbers on request.

# Incremental encoders

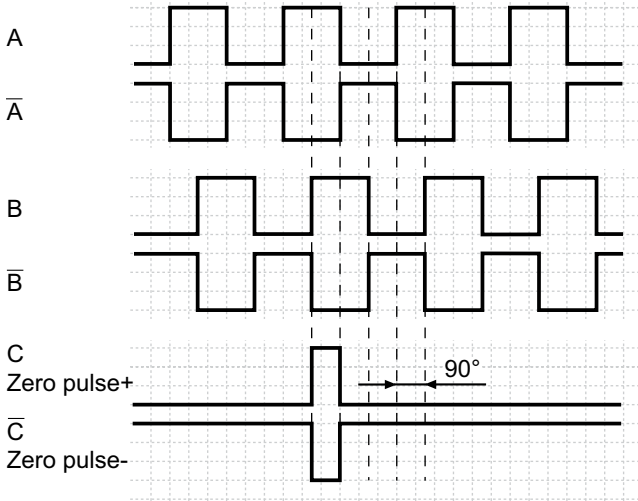
Blind hollow shaft  $\varnothing 12$  mm and  $\varnothing 14$  mm

64...2048 pulses per revolution

## HOG 71

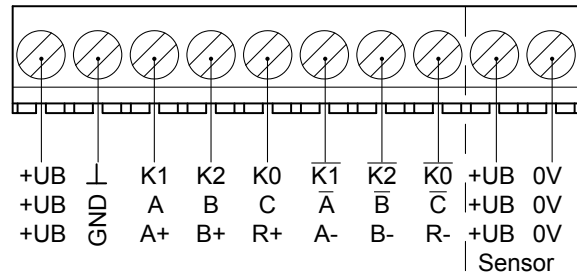
### Output signals

At positive rotating direction

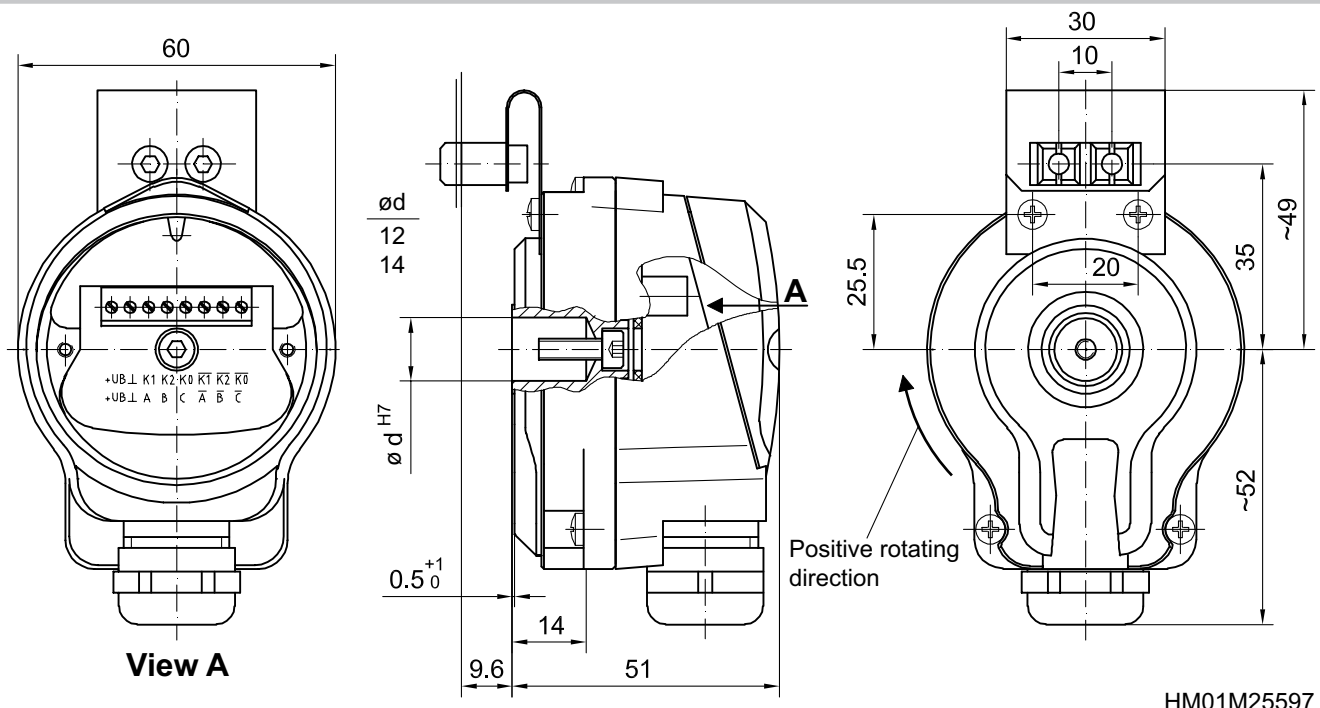


### Terminal assignment

View A - Connecting terminal inside the encoder



### Dimensions



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