

# ENCODER

Type: **IMG60H-.....-ABN-.....-K1-D5**



## Description

The **IMG60H** is a rugged rotary encoder with a hollow shaft for industrial use. The diameter inside the hollow shaft is 10 or 12 mm. The hollow shaft is fixed to the rotating machine shaft by two screws which are staggered of an angle of 120 degrees. His rotation prevents a cylindrical screw as torque plate. This screw is lying in a glide-fork in the flange of the encoder without tolerance.

The new developed optical electronics of this incremental encoder guarantees with differential scanning the code-disk a high technically reliability. The integrated IR-LED-current is monitoring with alarm output and generates a constant incidence of light.

Beside different pulse numbers and pulse series (up to 8 are realisable in one device), and operating voltage (10 Volt at TTL-compatibility), the **IMG60H** are delivered with continuous or non-continuous hallow shaft.



## Technical Data

Bearing flange with housing: Aluminium solid (high-grade steel on inquiry)  
Shaft: Steel (stainless)

Diameter (outside): 60 mm

Diameter (inside): 10 mm / 12 mm (8 mm on inquiry)

Working temperature: 0 ÷ +80 °C (-30 ÷ +110 °C on inquiry)

Protection class: IP54

Mechanical speed: max. 5600 min<sup>-1</sup>

Starting torque: 1.6 Ncm at 25 °C

Offset of shaft: axial max. 0.2 mm  
radial max. 0.2 mm

Vibration: <100 m/s<sup>2</sup> (at 10-2000 c/s)

Impact: <100 m/s<sup>2</sup>

Weight: 270 g

Operating voltage: 5 Volt DC ±10% »IT«

Residual ripple: 50 mVss

Current input: ≤ 50 mA (unloaded)

Output circuit: TTL; RS422 compatible

Output load: 80 mA

Output signals: Channel A:

(With view on shaft and turn cw) Channel B:

Channel N:

10 ÷ 24 Volt DC ±10 % »TI«

100 mVss

≤ 50 mA (unloaded)

HTL

80 mA

Impulse duration T = vibration duration T =  $2\pi = 360^\circ$ .

90° Phase offset from channel B to channel A.

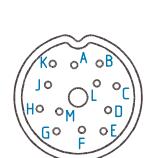
Impulse tolerance ±20°. Impulse-break-proportion 1:1.

Pulse numbers per turn: up to 5000 (other on inquiry)

Output frequency: max. 200 kc/s

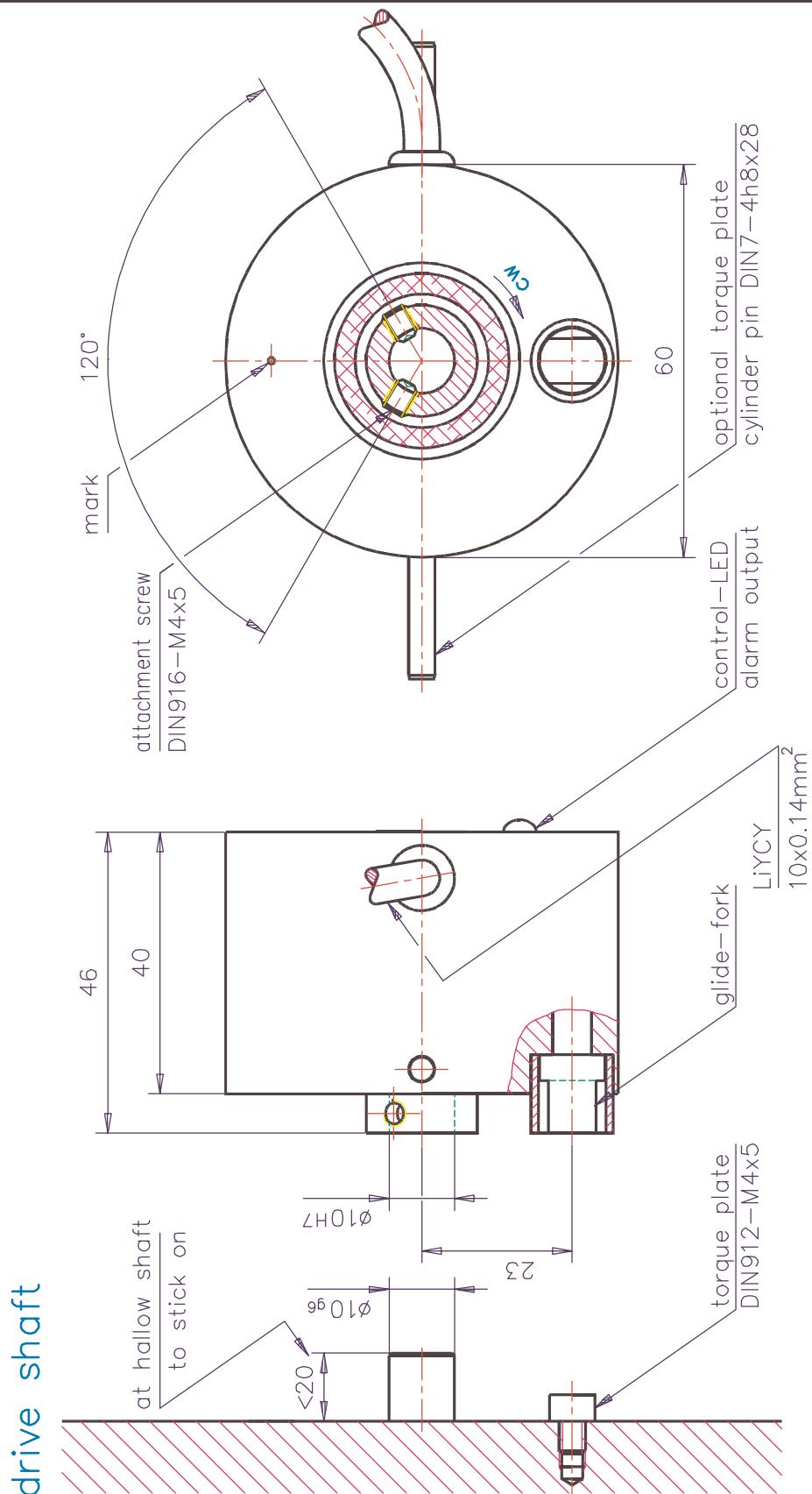
Type of connection: radial cable LIYCY (shielded)

Function	Pin	Colour	Pin arrangement
+U <sub>B</sub>	L	brown	
0 Volt	M	white	
Channel A	A	green	
Channel A inv.	B	yellow	
Channel B	C	grey	
Channel B inv.	D	pink	
Channel N	E	blue	
Channel N inv.	F	red	
Alarm output	G	black	



View on pin side

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general  
tolerance  
DIN 7168-m  
line 1

scale  
1:1  
material

(weight)

**IMG**  
Drehimpulsgeber GmbH  
50259 Pulheim

00.7-0015030

sheet  
2  
2 sheets

state	change	date	Nam.	origin	in replacement's	replace by:
		05.05.03	B. Kruse		IMG60H-____-ABN-__-K1-D5	