

# ENCODER

Type: **IMG60H-.....-ABN-.....-S5-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 technical 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** will deliver with continuous or non-continuous hallow shaft.



## Technical Data

Mechanical features:

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

Electrical features:

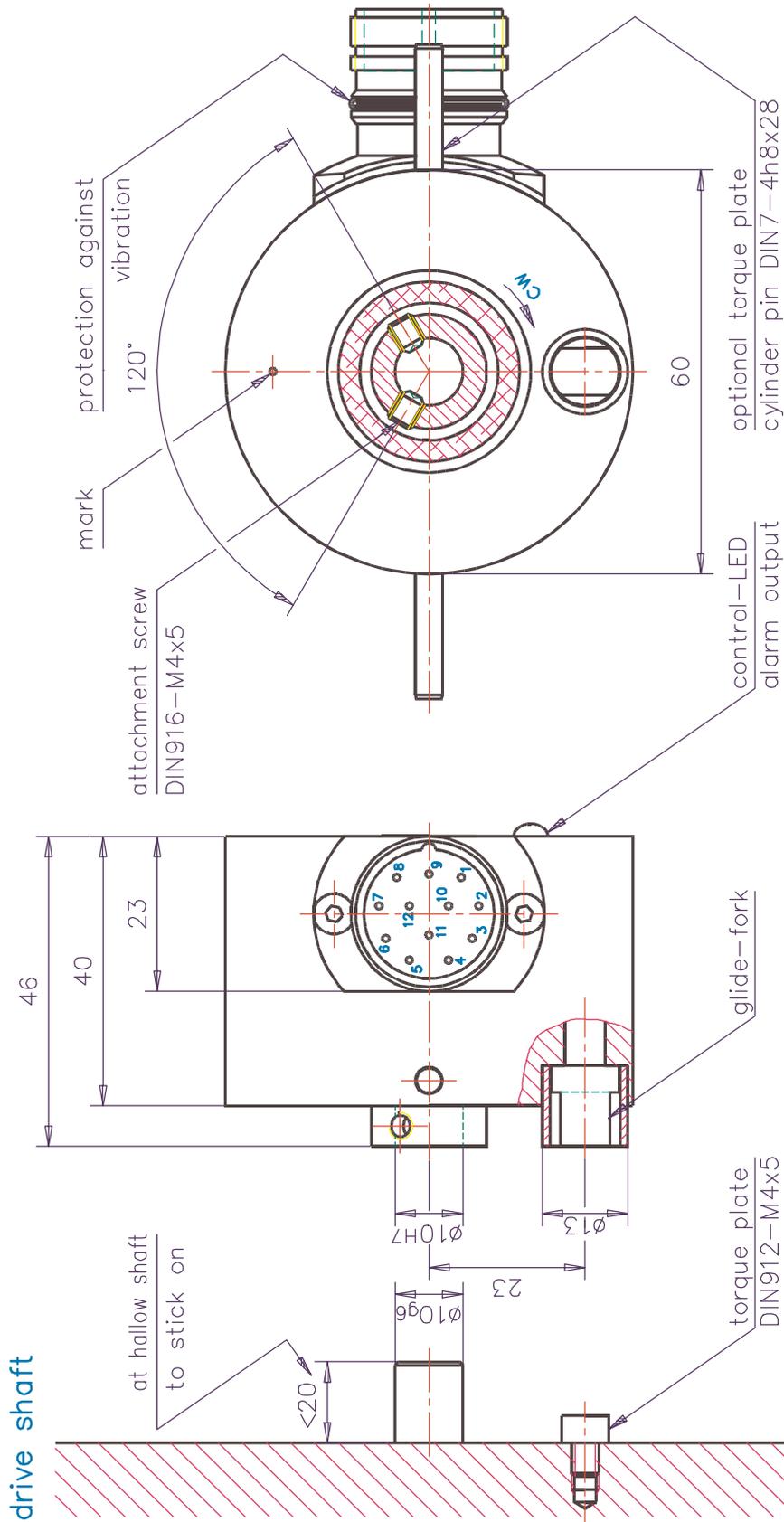
Operating voltage: 5 Volt DC ±10% »IT«	10 ÷ 24 Volt DC ±10 % »TI«
Residual ripple: 50 mVss	100 mVss
Current input: ≤ 50 mA (unloaded)	≤ 50 mA (unloaded)
Output circuit: TTL; RS422 compatible	HTL
Output load: 80 mA	80 mA

Output signals: Channel A: Impulse duration T = vibration duration T = 2π = 360°  
 (With view on shaft and turn cw) Channel B: 90° Phase offset from channel B to channel A.  
 Channel N: 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 plug

Function	Pin	Colour	Pin arrangement
+U <sub>B</sub>	12	brown	<p>View on pin side</p>
0 Volt	10	white	
Channel A	5	green	
Channel A inv.	6	yellow	
Channel B	8	grey	
Channel B inv.	1	pink	
Channel N	3	blue	
Channel N inv.	4	red	
Alarm output	11	black	

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		general tolerance DIN 7168-m	surface DIN ISO 1302 line 1	scale 1:1	(weight)
		material			
		date 29.01.04	name B. Kruse	IMG60H-____-ABN-__-S5-D5	
		adapter check norm.			
		 Drehimpulsgeber GmbH 50259 Pulheim		00.7-0015037	sheet 2
state	change	date	Nam. origin	in replacement's	replace by: 2 sheets