

ENCODER

Type: **IMG40H-.....ABN-.....K1-D3**



Description

The **IMG40H** is a rugged rotary encoder with a hollow shaft for industrial use. The diameter inside the hollow shaft is 6 mm. The hollow shaft is fixed to the rotating machine shaft by two screws which are staggered of an angle of 120 degrees. Its rotation prevent 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.

Beside different pulse numbers and pulse series (up to 3 are realizable in one device), and operating voltage (10 Volt at TTL-compatibility), the **IMG40H** are delivered with continuous or non-continuous hollow shaft.






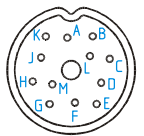
Technical Data

Mechanical features:

Bearing flange with housing: aluminium solid (high-grade steel on inquiry)
shaft: steel (stainless)
Diameter flange (outside): 40 mm
Diameter shaft (inside): 6 mm
Working temperature: 0 ÷ +80 °C (-30 ÷ +110 °C on inquiry)
Climate class (IEC 721-3-3): 3K3 Typ B
Relative moisture: ≤ 75 % on average one year, max. ≤ 85 %
Protection class (EN 60529): IP54
Mechanical speed: max. 5600 min⁻¹
Offset of shaft: axial max. 0.2 mm
radial max. 0.2 mm
starting torque: 0.15 Ncm (at 25 °C)
Vibration (IEC 68-2-6): ≤ 50 m/s² 5 g (at 10-2000 c/s)
Impact (IEC 68-2-27): ≤ 50 m/s² 5 g (during 6 ms)
Weight: 98 g

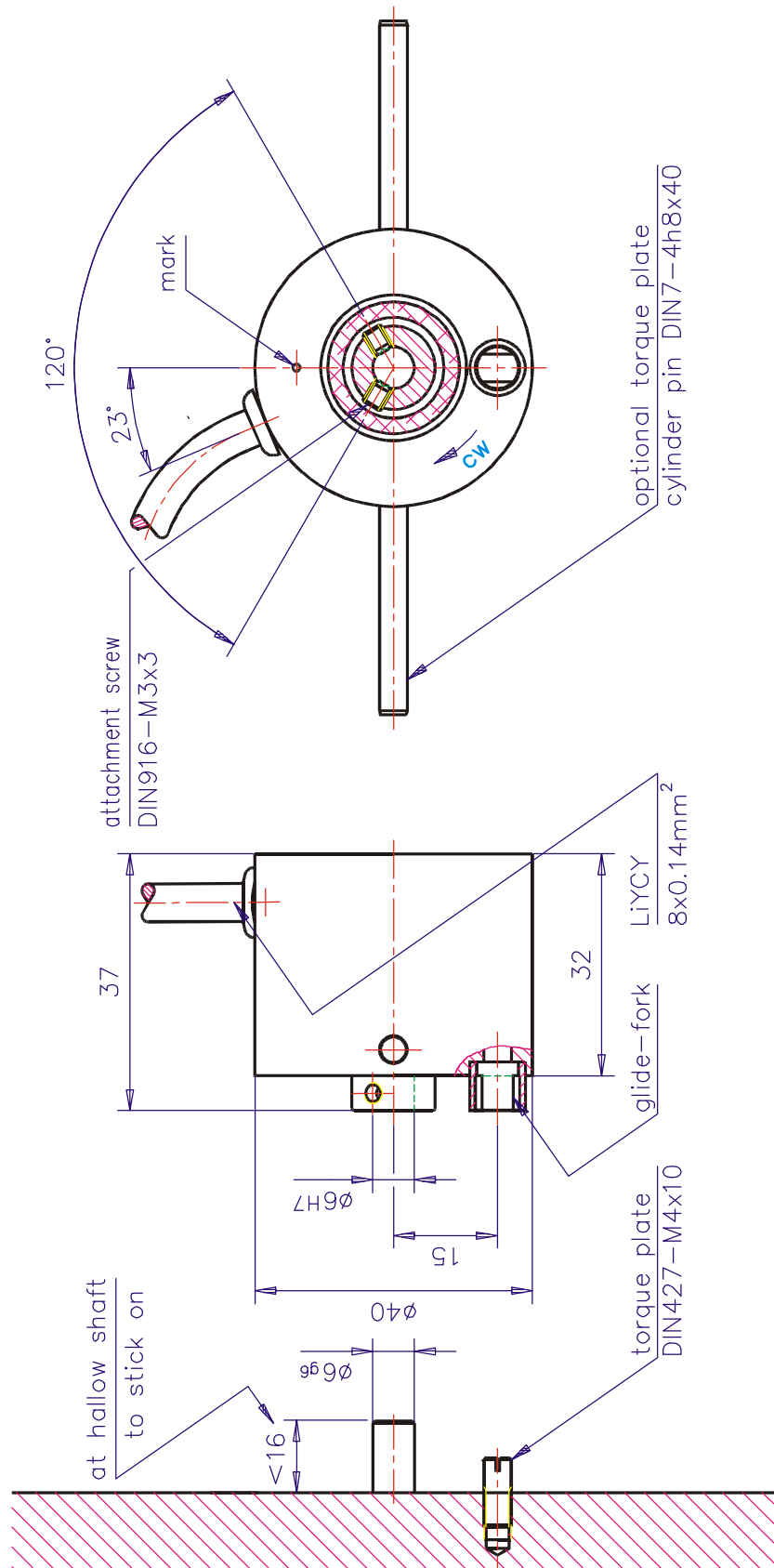
Electrical features:

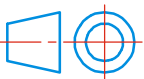

Operating voltage: 5 Volt DC ±10%	»IT«	10 ÷ 24 Volt DC ±10 %	»TI«
Residual ripple: 50 mVss		100 mVss	
Current input: ≤ 50 mA (unloaded)		≤ 50 mA (unloaded)	
Output circuit: TTL; RS422 compatible		HTL	
Output load: 80 mA		80 mA	
Output signals: channel A: 		Impulse duration T = vibration duration T = 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 cable LIYCY (shielded)			

Funktion	Pin	colour	Pin arrangement
+U _B	4	brown	 view on pin side
0 Volt	2	white	
channel A	3	green	
channel A inv.	5	yellow	
channel B	1	grey	
channel B inv.	6	pink	
channel N	7	blue	
channel N inv.	8	red	

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drive shaft



				Allgemein- toleranzen DIN 7168-m	Oberflächen DIN ISO 1302 Reihe 1	Maßstab 1:1 Werkstoff:	(Gewicht)
				Datum 15.06.04	Name B. Kruse	IMG40H-____-ABN-__-K1-D3	
				Bearb. Gepr. Norm.			
				 Drehimpulsgeber GmbH 50259 Pulheim		00.7-0018030	Blatt 2
Zust.	Änderung	Datum	Nam.	Ursprung	Ersatz für:		Ersetzt durch:
						2 Blätter	