

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 hallow 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

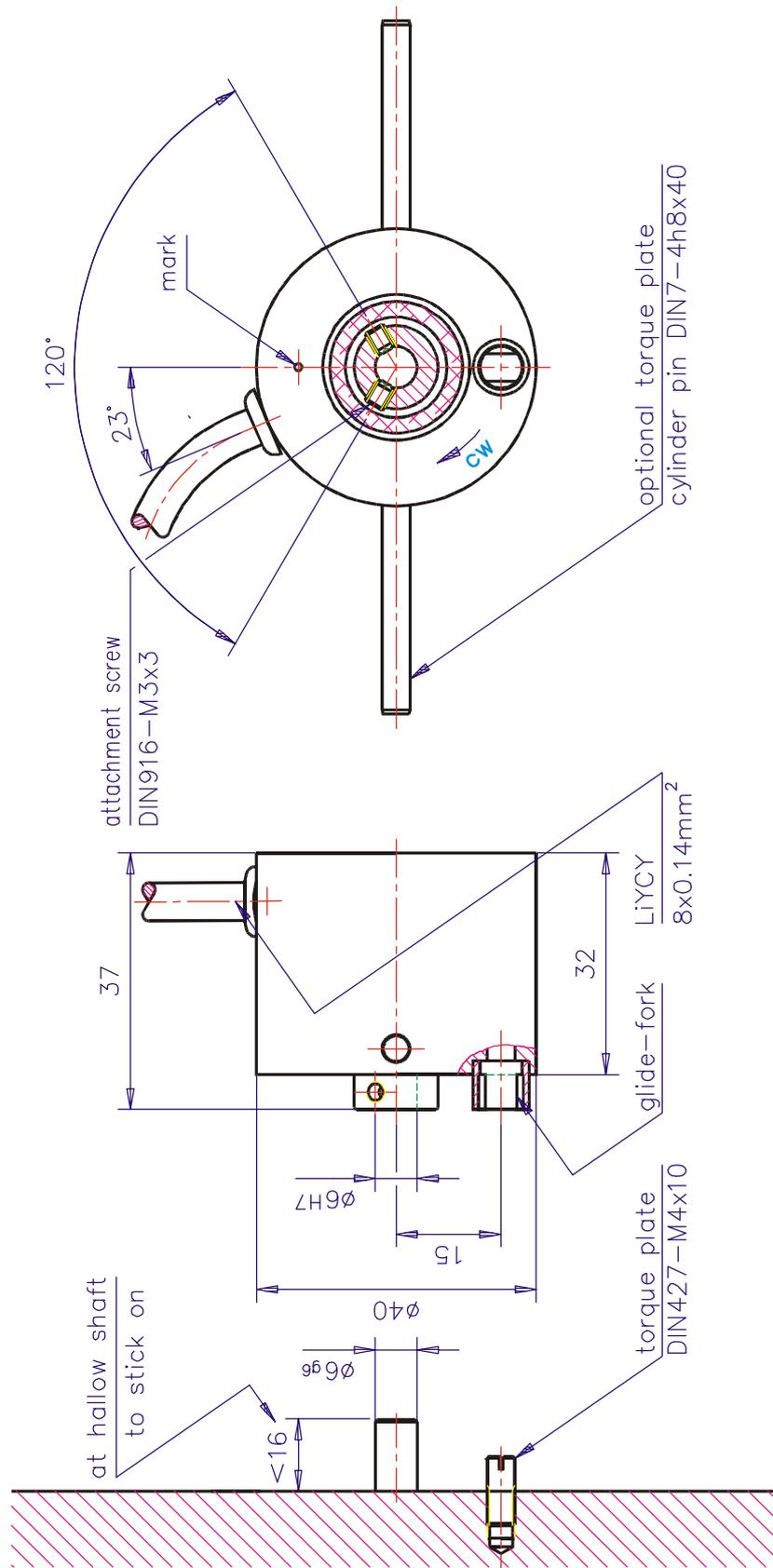
Electrical features:

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: (with view on shaft and turn cw)	Impulse duration T = vibration duration T = 2π = 360°. 90° Phase offset from channel B to channel A. Impulse tolerance ±20°. Impulse-break-proportion 1:1.
channel A:	
channel B:	
channel N:	
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	<p>view on pin side</p>
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		(Gewicht)	
		Datum		Name		Werkstoff:			
				Bearb.	15.06.04	B. Kruse		IMG40H-____-ABN-__-K1-D3	
				Gepr.					
				Norm.					
						Drehimpulsgeber GmbH 50259 Pulheim		00.7-0018030	
				Zust.		Änderung		Datum	
				Nam.		Ursprung		Ersatz für:	
								Ersetzt durch:	
								Blatt 2	
								2 Blätter	