

ENCODER

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

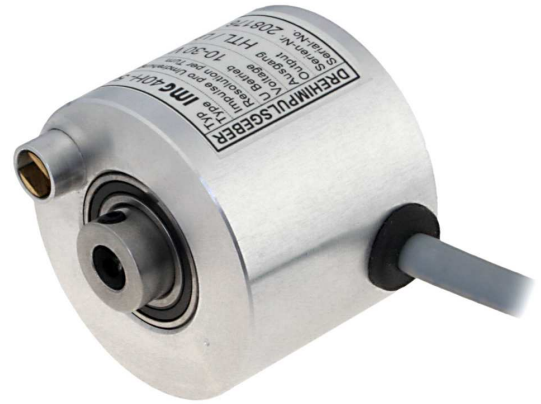


Description

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 realisable in one device), and operating voltage (10 Volt at TTL-compatibility), the **IMG40H** will deliver with continuous or non-continuous hollow shaft.






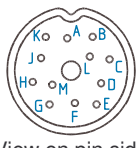
Technical Data

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 Type 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/s ² ≈ 5 g (at 10-2000 c/s)
Impact (IEC 68-2-27):	≤ 50 m/s ² ≈ 5 g (during 6 ms)
Weight:	98 g

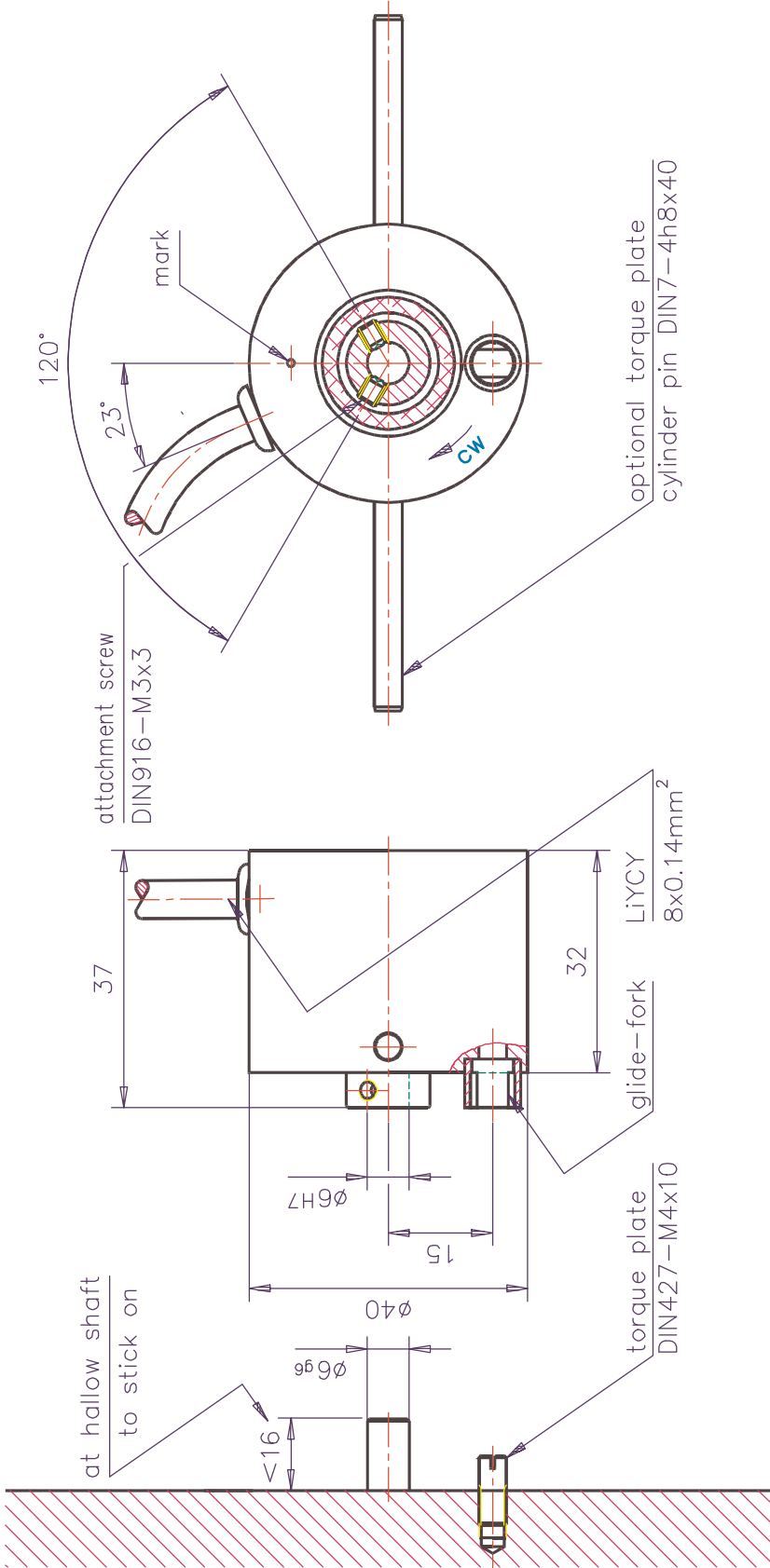
Electrical features:

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

Copy this drawing, use and information the contents from this, is not permit, as far as not explicit entitled. Acts contrary to oblige to damage. All rights reserved in case the patent–licence or application–entry.

drive shaft



				general tolerance DIN 7168-m	surface DIN ISO 1302 line 1	scale 1:1	(weight)
				date 15.06.04	name B. Kruse	material	
				adapter check norm.		IMG40H-____-ABN-__-K1-D3	
				img Drehimpulsgeber GmbH 50259 Pulheim		00.7-0018030	
						sheet 2	
						2 sheets	
state	change	date	Nam.	origin	in replacement's		replace by: