

# ENCODER

Type: **IMG40S-.....-ABN-.....-S2-V3**



## Description

The **IMG40S** is a strong incremental encoder with screw-flange for the inset in the industry. The 40 mm diameter and the 6 mm axis of them make possible very hard wear.

The new developed optical electronics in this encoder guarantees with differential scanning the code-disk just so a high technical reliability.

Besides different pulse numbers and pulse series (up to 3 are realisable in one device) and operating voltage (10 Volt at TTL-compatibility), this **IMG40S** will deliver with 8-pole flanged plug (M16).

The **IMG40S** can be fixed in front by means of one M20 nut.

It is particularly qualified to be used with low and medium stress and high speeds.



## Technical Data

**Mechanical features:** Bearing flange with housing: Aluminium solid (high-grade steel on inquiry)

Shaft: Steel (stainless)

Diameter housing: 40 mm

Diameter flange: 40 mm

Diameter shaft: 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): IP64

Mechanical speed: max. 10000 min<sup>-1</sup>

Loading capacity of the shaft: max. 10 N axial

max. 20 N radial

Starting torque: 0.15 Ncm (at 25 °C)

Vibration (IEC 68-2-6): ≤ 50 m/s<sup>2</sup> ≈ 5 g (at 10-2000 c/s)

Impact (IEC 68-2-27): ≤ 50 m/s<sup>2</sup> ≈ 5 g (during 6 ms)

Masse: 96 g

IP67

max. 3000 min<sup>-1</sup> (lip-type seal!)

max. 5 N axial

max. 10 N radial

0.6 Ncm (at 25 °C)

**Electrical features:** 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.

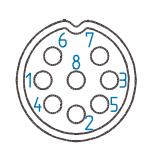
Impulse tolerance ±20°. Impulse-break-proportion 1:1.

Pulse numbers per turn: max. 3600

Output frequency: max. 200 kc/s

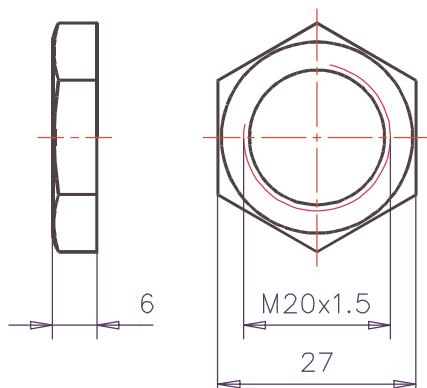
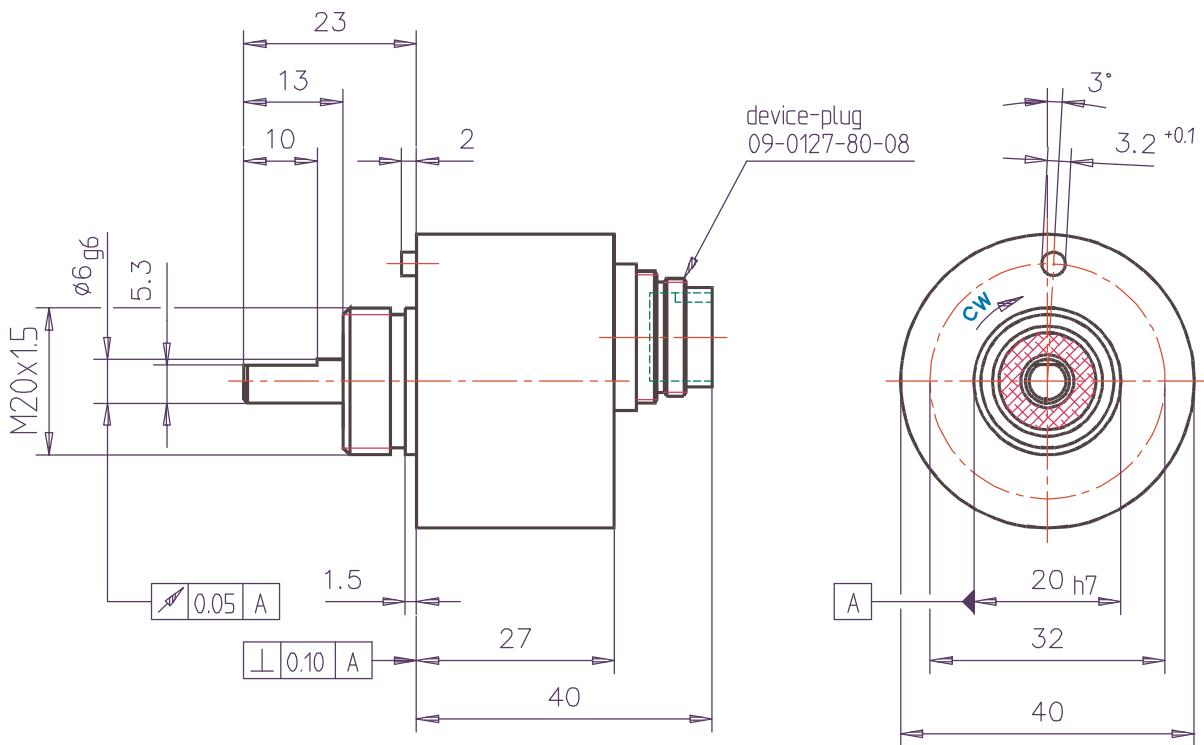
Type of connection: axial 8-pole plug

Function	Pin	Colour	Pin arrangement
+U <sub>B</sub>	4	brown	
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	



View on pin side

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



admissible torque specification  
 $T_{A\text{zul.}} = 5\text{Nm}$

	general tolerance DIN 7168-m line 1	surface DIN ISO 1302	scale 1:1	weight 96g
		material		
	date adapter 06.02.03	name B. Kruse		
	check	norm.		
			IMG40S-____-ABN-__-S2-V3	
		IMC Drehimpulsgeber GmbH 50259 Pulheim	00.7-0018064	sheet 2 2 sheets
state	change	date Nam.	origin in replacement's	replace by