

# ENCODER

Type: **IMG30B-.....-ABN-.....-S2-V3**



## Description

The **IMG30B** is a strong incremental encoder with clamp-flange for the inset in the industry. The 30mm diameter and the 6mm 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 **IMG30B** will deliver with 8-pole flanged plug (M16).

The **IMG30B** can be fixed in front by means of 2 x three screws type M3.

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






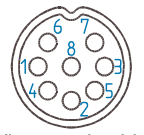
## Technical Data

Mechanical features:

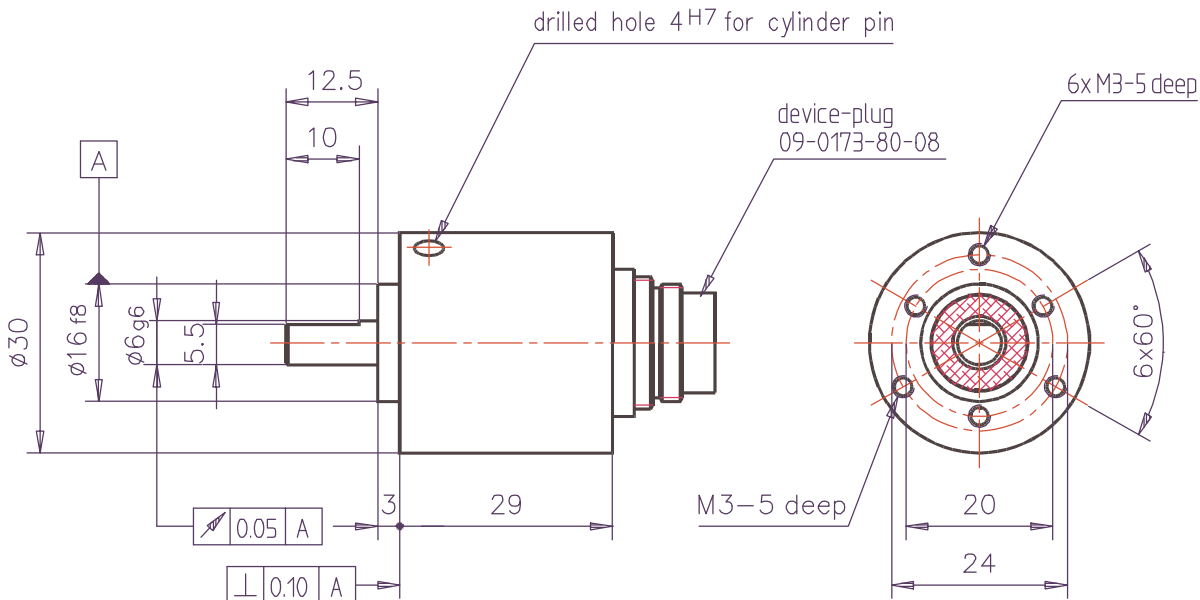
Bearing flange with housing: Aluminium solid (high-grade steel on inquiry)  
Shaft: Steel (stainless)  
Diameter housing: 30 mm  
Diameter flange: 30 mm  
Diameter shaft: 6 mm  
Working temperature:  $0 \div +80 \text{ }^{\circ}\text{C}$  ( $-30 \div +110 \text{ }^{\circ}\text{C}$  on inquiry)  
Climate class (IEC 721-3-3): 3K3 Type B  
Relative moisture:  $\leq 75 \%$  on average one year max.  $\leq 85 \%$   
Protection class (EN 60529): IP64  
Mechanical speed: max.  $8000 \text{ min}^{-1}$   
Loading capacity of the shaft: max. 5 N axial  
max. 10 N radial  
Starting torque: 0.15 Ncm (at  $25 \text{ }^{\circ}\text{C}$ )  
Vibration (IEC 68-2-6):  $\leq 50 \text{ m/s}^2 \approx 5 \text{ g}$  (at 10-2000 c/s)  
Impact (IEC 68-2-27):  $\leq 50 \text{ m/s}^2 \approx 5 \text{ g}$  (during 6 ms)  
Masse: 52 g

Electrical features:

Operating voltage: 5 Volt DC $\pm 10\%$ »IT«	10 ÷ 24 Volt DC $\pm 10\%$ »TI«
Residual ripple: 50 mVss	100 mVss
Current input: $\leq 50 \text{ mA}$ (unloaded)	$\leq 50 \text{ mA}$ (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 $T = 2\pi = 360^{\circ}$ . 90° Phase offset from channel B to channel A. Impulse tolerance $\pm 20^{\circ}$ . Impulse-break-proportion 1:1.
Pulse numbers per turn: max. 2500	
Output frequency: max. 200 kc/s	
Type of connection: axial 8-pole plug	

Function	Pin	Colour	Pin arrangement
+U <sub>B</sub>	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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				general tolerance DIN 7168–m	surface DIN ISO 1302 line 1	scale 1:1	weight 52g
				date 12.03.03	name B. Kruse	material	
				adapter		IMG30B–____–ABN–__–S2–V3	
				check			
				norm.		00.7–0017054	
				 Drehimpulsgeber GmbH 50259 Pulheim			sheet 2
state	change	date	Nam.	origin	in replacement's	replace by.	2 sheets