



# SERIE MR

## MAGNETIC INCREMENTAL ENCODER

- Non-contacting measuring system
- Easily assembling
- 5...30 VDC Push-Pull not differential
- High protection class IP67
- Compact dimensions
- For applications under possible adverse ambient conditions (vibrations, humidity, dust, etc.)



Magnetic Encoder



Incremental Encoder



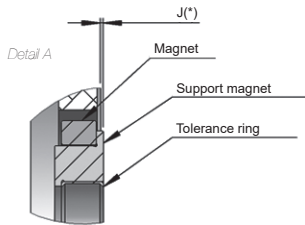
Vibration and shock resistant



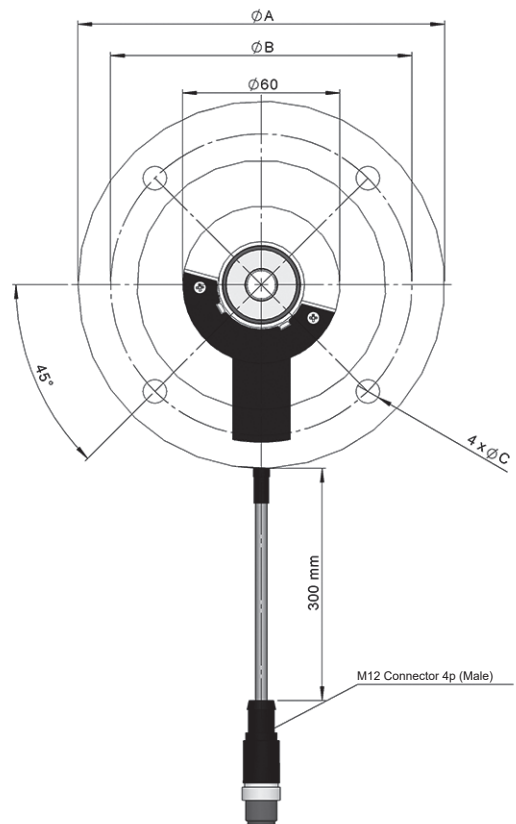
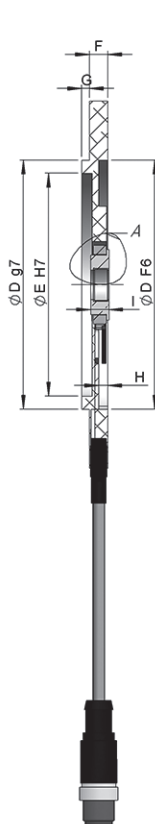
IP 67



Express Delivery



J(\*) Distance to mounting between support of magnet and surface to fix the sensor.  
Mounting tolerance:  $\pm 0.7$  mm



Ø A	Ø B	Ø C	Ø D	Ø E	F	G	H	I	J
Ø 105	85	7	70	62	7	2,5	3	7	0
Ø 120	100	7	80	72	7	3	3,5	7	0
Ø 140	115	9	95	85	7	3	3,5	7	0,5
Ø 160	130	9	110	100	7	3,5	4	7	0,5

### REFERENCE

Reference example: MR-105-14-001

Serie	External diameter	Shaft	Resolution	Special customer
MR -	□ □ □ -	□ □ -	0 0 1	. □ □ □ □
	105. Ø 105 mm 120. Ø 120 mm 140. Ø 140 mm 160. Ø 160 mm	11. Ø 11 mm 14. Ø 14 mm 19. Ø 19 mm		

Order your reference  
Step file 3D

info@encoderhohner.com

service available in 24 h



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## MAGNETIC INCREMENTAL ENCODER

### MECHANICAL SPECIFICATIONS

Materials	Flange: Aluminium Hub material: Stainless Steel Magnet Ferrite
Maximum number of revolutions permitted mechanically	6000 rpm
Shaft diameter	11, 14, 19 mm
Housing fixing	4 holes (see dimensions table $\varnothing B - \varnothing C$ )
Permitted misalignment	$\pm 0.7$ mm axial, $\pm 1$ mm radial
Protection against dust and splashes according to DIN EN 60529	IP67
Weight approx.	0,4 Kg
Operating temperature range	-20 to +85°C
Vibration according to DIN EN 60068-2-6	100 m/s <sup>2</sup> (10Hz...2000Hz)
Shock according to DIN EN 60068-2-27	1000 m/s <sup>2</sup> (6ms)
Radial connection	30 cm cable ended with M12 4p industrial male connector <b>Female connector not included</b>

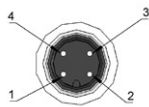
### ELECTRICAL SPECIFICATIONS

Measuring range	0...360°
Resolution	1 ppr
Power supply	5...30 VDC
Consumption	< 20 mA (without load)
Reverse polarity protection of power supply	Yes (max. 2s)
Insulation test	1 KV
Insulation resistance	200 M $\Omega$
Impulse sequence	A 90° B Tolerance $\pm 25^\circ$ el.
Motor shaft tolerance	According to IEC Dimensions

### OUTPUT SIGNALS

Electronic Output voltage	Push-Pull not differential
"High" signal level	> VCC -3 VDC
"Low" signal level	< 2.5 VDC
Frequency	$\leq 20$ kHz
Duty cycle signal	180° $\pm$ 18° el.
Length of cable allowed	50 m
Max. load capability / channel	30 mA
Output channels	Square wave-Impulse, (2-channel) A+B
Short circuit protection	No

### CONNECTION

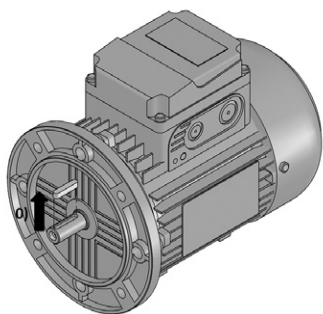


	Connector M12 4p
GND	3
VCC	1
A	4
B	2

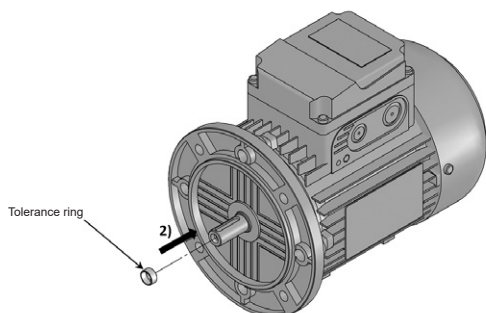
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## MAGNETIC INCREMENTAL ENCODER

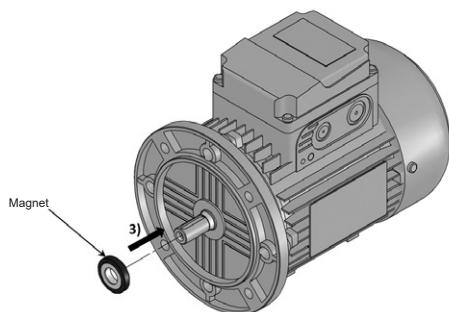
### ASSEMBLY INSTRUCTIONS



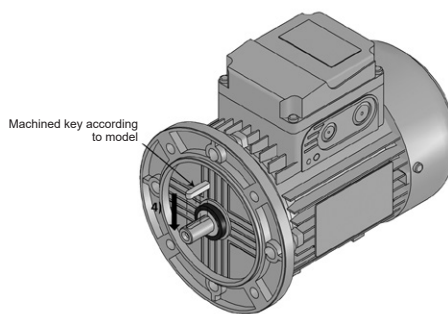
1) Dismount the key.



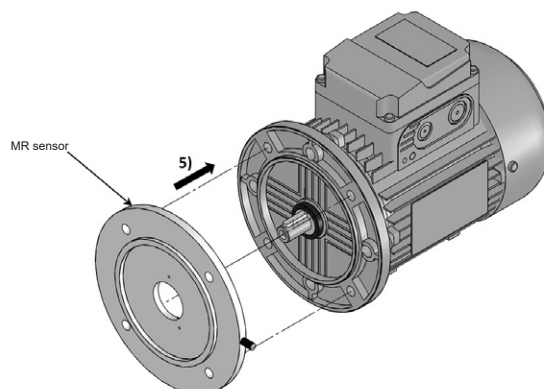
2) Push tolerance ring up to the shoulder of the shaft.



3) Mount magnet embedded with tolerance ring.



4) Push machined key according to MR model.



5) Mount MR sensor.

