EGM

FLANGE TYPE MAGNETIC INCREMENTAL ENCODERS

ISO 9001:2000

Main features

EGM series encoders are recommended as feedback control systems mounted on electric motors, thanks to their specific mechanical design that allows reduced overall dimensions.

- Compact dimensions
- Absence of physical contact between encoder and motor shaft
- High temperature resistant
- High resolution and precision
- High enclosure rating
- High operating speed
- Excellent mechanical strength
- Easy mounting

Ordering code

full stop to separate special versions													
EGM	120	A	2048	S	5	P	9	S	8	PR	.	XXX

EGM flange type magnetic incremental encoder

120 / 140 / 160 / 200 size

Type of flange
A standard

Resolution
(only powers of 2) ppr from 64 to 16384

Zero pulse
S without zero pulse
Z with 64 zero pulses (32 pulses for ø greater than 21 mm)

Power supply
5 5 V DC
8/24 8÷24 V DC

Output type
P push-pull
L line driver

9 please contact directly our offices for further measures

Bore diameter (magnet-carrier)
from 5 to 35 mm

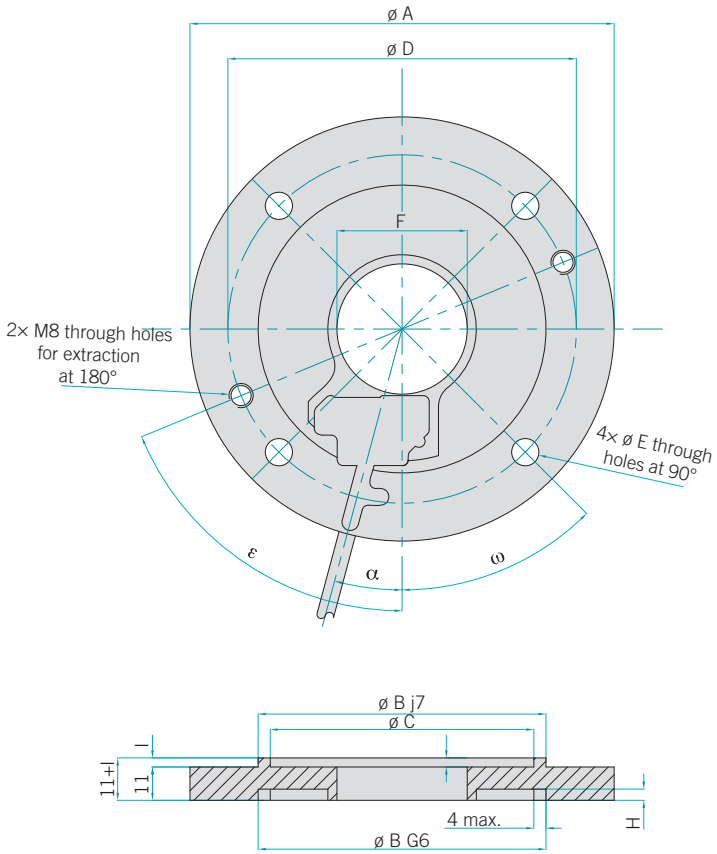
Enclosure rating
S IP68

Max. rotation speed
8 8000 RPM

PR radial cable output (standard length 1.5 m)

XXX special version code numbered from 001 to 999

EGM



Electrical specifications

Resolution	from 64 to 16384 ppr (only powers of 2)
Power supply	5 V DC ± 5% 8÷24 V DC
Max. load current	20 mA for channel
Current consumption without load	40 mA max.
Output types	line driver push-pull
Max. output frequency	350 kHz
Linearity error	0.25° max.
Electromagnetic compatibility	IEC 61000-6-2 IEC 61000-6-4

Mechanical specifications

Bore diameter (magnet-carrier)	up to 35 mm
Enclosure rating	IP68
Max. rotation speed	8000 RPM
Vibration	10 G, 10÷2000 Hz
Shock	50 G, 11 ms
Body material	aluminium AA 2011
Magnet-carrier material	stainless steel AISI 303
Operating temperature	-40÷85 °C
Storage temperature	-40÷90 °C
Weight	800 g max.
Mounting tolerances	axial: ± 1 mm radial: ± 0.1 mm

Mechanical dimensions

Model	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	I (mm)	ε (°)	α (°)	ω (°)	ø motor shaft (mm)
105	105	70	65	85	7	43	41.2	3.3	2.5	90	15	30	5÷21
120	120	80	72	100	9	43 / 50	41.2 / 48	3.7	3	70	15	45	5÷35
140	140	95	87	115	9	43 / 50	41.2 / 48	3.7	3	70	15	45	5÷35
160	160	110	102	130	9	43 / 50	41.2 / 48	3.7	3	70	15	45	5÷35
200	200	130	122	165	11	43 / 50	41.2 / 48	3.7	3	70	15	45	5÷35

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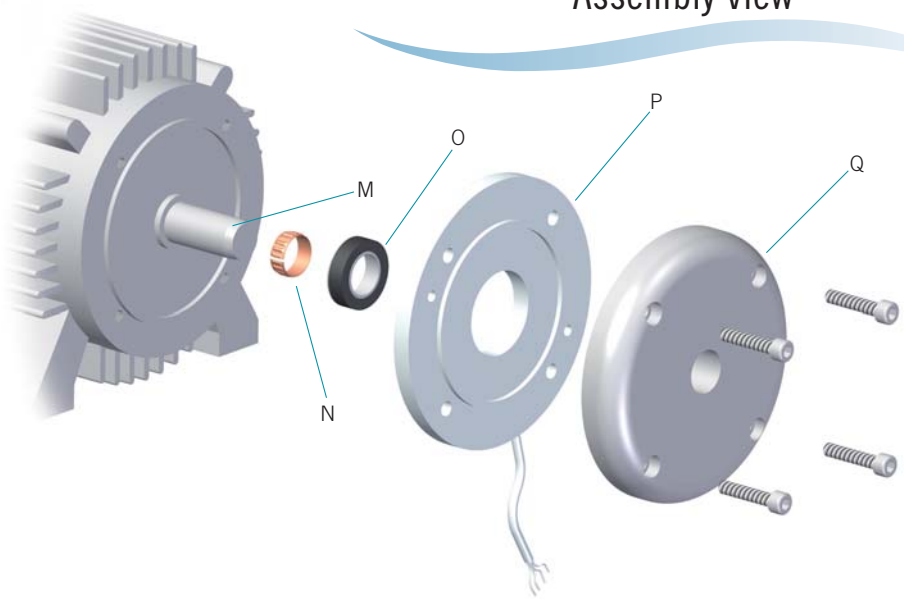
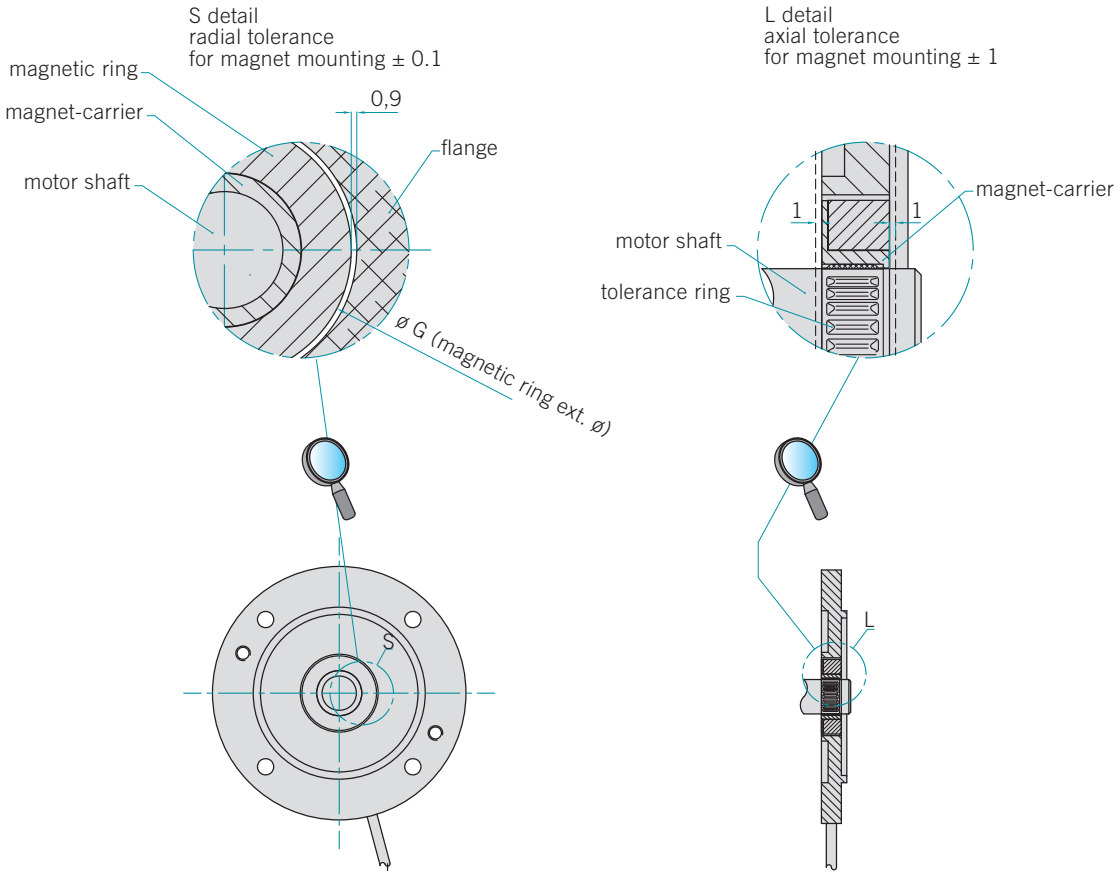
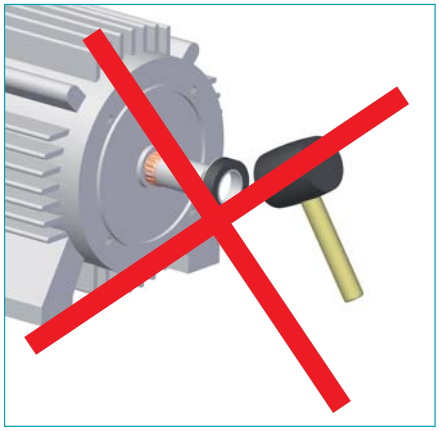
Assembly view

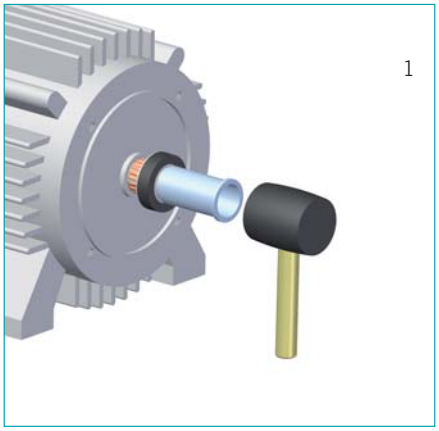


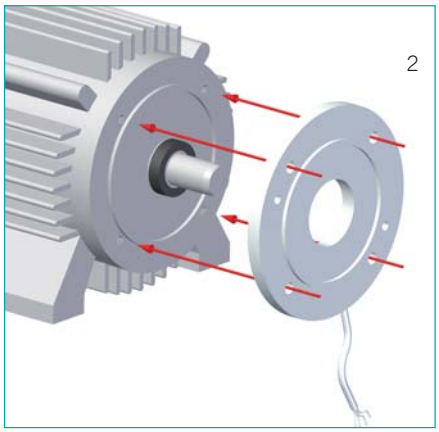
M - motor shaft
N - tolerance ring
O - magnet
P - encoder
Q - motor cap

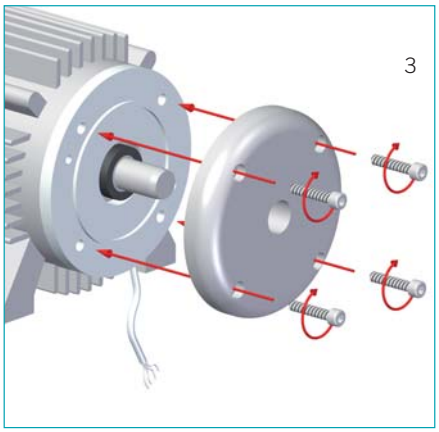
Mounting tolerances











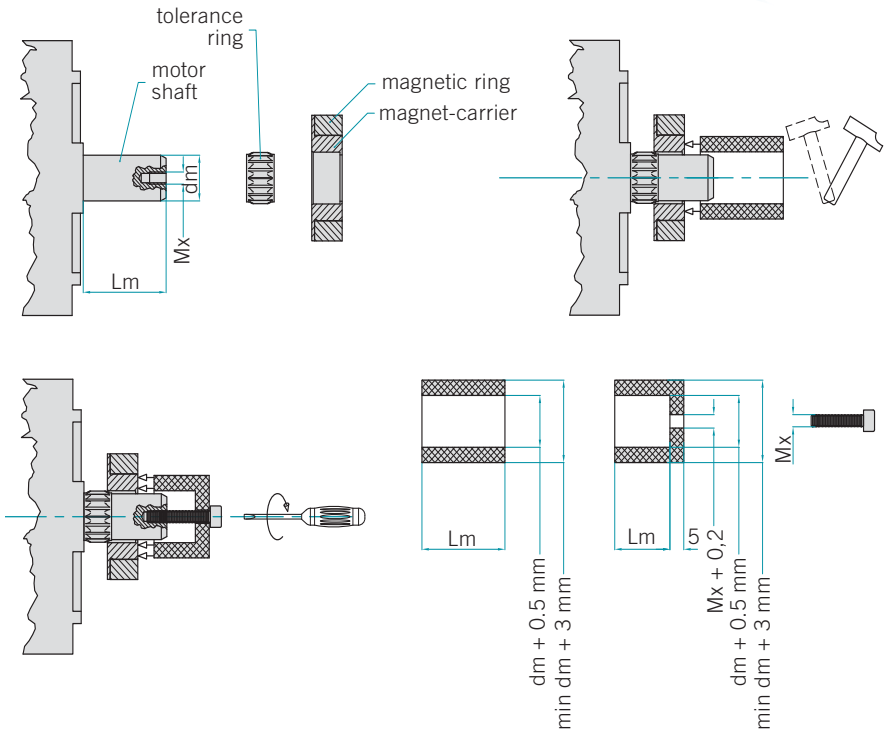
HOW TO MOUNT IT

Don't hit the magnetic ring with hard objects to avert breaking or damage!

Keep the magnetic ring away from magnetic fields to prevent distortion of magnetic pattern!

1) Slip the tolerance ring (N) on to the motor shaft; then slip the magnet (O) on to the tolerance ring till the stop, pressing lightly only on the steel surface of the magnet-carrier. We recommend to use tools like those represented in the figure below to perform this action correctly.
2) Couple the encoder to the motor flange.
3) Fix the encoder by suitable screws.

Recommendations for right magnet mounting



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