

MAIN FEATURES

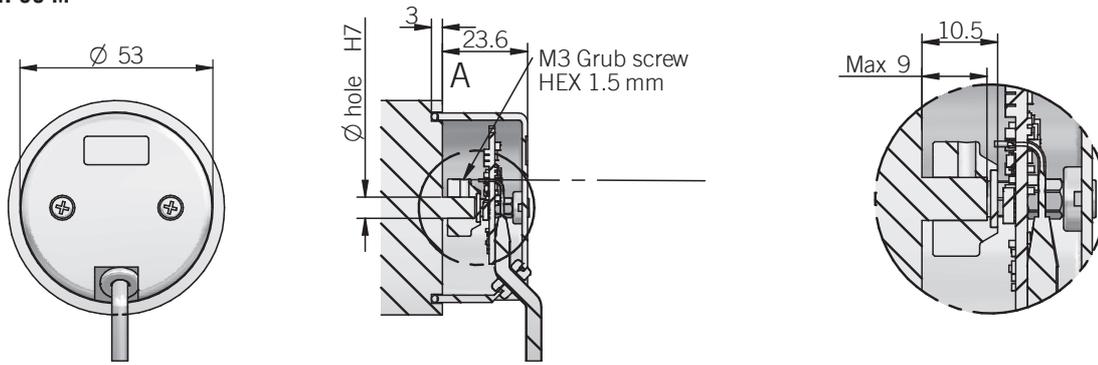
Series of miniaturized encoders for integration on small size AC/DC motors, stepper motors or for limited size applications.

- 3 channel encoder (A / B / Z) up to 90 ppr
- Power supply up to +30 VDC with several electronic interfaces available
- Cable output, connector available on cable end
- Compact dimensions (only 23,6 mm height)
- No wear due to no contact magnetic technology
- Bore shaft diameter up to 10 mm
- Wide operating temperature -20° ... +100°C (-4° ... +212°F)
- OEM version without cover available

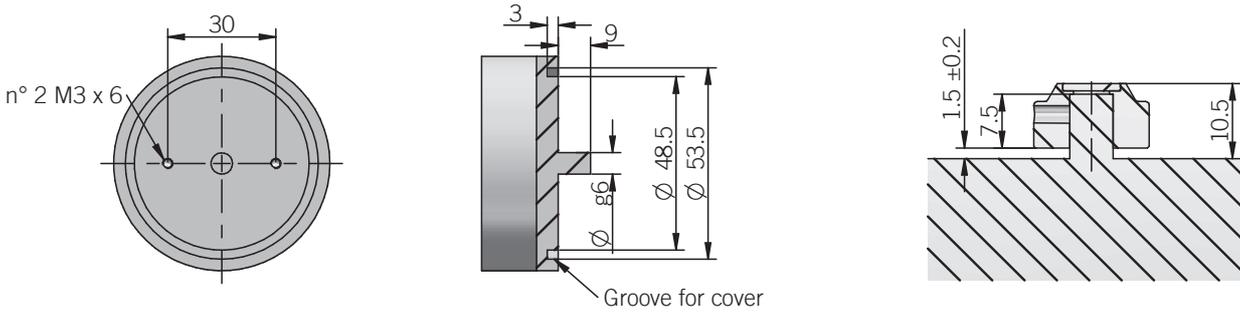


ORDERING CODE	EMI	30M	*S	50	Z	5	N	6	X	X	PR	.XXX
SERIES magnetic incremental encoder series EMI												
MODEL kit encoder 30M												
COVER * add if without cover S												
RESOLUTION ppr from 1 to 90												
ZERO PULSE without zero pulse S with zero pulse Z												
POWER SUPPLY 5 V DC 5 5 ... 30 V DC 5/30												
ELECTRONIC INTERFACE NPN N NPN open collector C push-pull protected (AEIC-7272) P line driver L power supply 5/30V - output RS-422 RS												
BORE DIAMETER mm 6 (1/4") mm 6,35 mm 8 mm 10												
ENCLOSURE RATING IP 54 X												
OPTION to be reported X												
OUTPUT TYPE radial cable (length 0,5 m) PR												
VARIANT custom version XXX												

EMI 30 M



RECOMMENDED INTERFACE FLANGE DESIGN



dimensions in mm

ELECTRICAL SPECIFICATIONS	
Resolution	from 1 to 90 ppr
Power supply	5 = 4,5 ... 5,5 V DC 5/30 = 4,5 ... 30 V DC (reverse polarity protection)
Power draw without load	5 = 200 mW typical 5/30 = < 400 mW
Max load current	N / C / P = 50 mA for channel L / RS = 20 mA per channel
Output type*	NPN / NPN open collector / push-pull / line driver
Max output frequency	15 kHz
Counting direction	A leads B clockwise (magnet actuator view)
Accuracy	± 0,35° typical ± 0,60° max <i>according to mounting tolerances and temperature range</i>
Startup time	150 ms
Electromagnetic compatibility	IEC 61000-6-2 IEC 61000-6-4

*output levels according to power supply, for further details please see under Technical basics section

CONNECTIONS		
Function	Cable output N / C / P	Cable output Line driver
+V DC	red	red
0 V	black	black
Ch. A	green	green
Ch. A-	/	brown
Ch. B	yellow	yellow
Ch. B-	/	orange
Ch. Z	blue	blue
Ch. Z-	/	white
⏏	shield	shield

MECHANICAL SPECIFICATIONS	
Bore diameter	ø 6 / 6,35 (1/4") / 8 / 10 mm
Enclosure rating	IP 54 (IEC 60529) when properly installed with supplied oring
Max rotation speed	limited only by output frequency
Shock	50 G, 11 ms (IEC 60068-2-27)
Vibration	20 G, 10 ... 2000 Hz (IEC 60068-2-6)
Moment of inertia	0,1 x 10 ⁻⁶ kgm ²
Magnet holder material	EN-AW 2011 aluminium
Cover material	PA66 glass fiber reinforced
Operating temperature	-20° ... +100°C (-4° ... +212°F)
Storage temperature	-20° ... +100°C (-4° ... +212°F)
Nominal airgap + shaft axial play	0,75 mm ± 0,5 mm <i>(including mounting tolerances)</i>
PCB fixing holes / shaft eccentricity tolerance	± 0,5 mm
Fixing torque for grub screws	40 cN max
Weight	100 g approx (3,5 oz)