

MAIN FEATURES

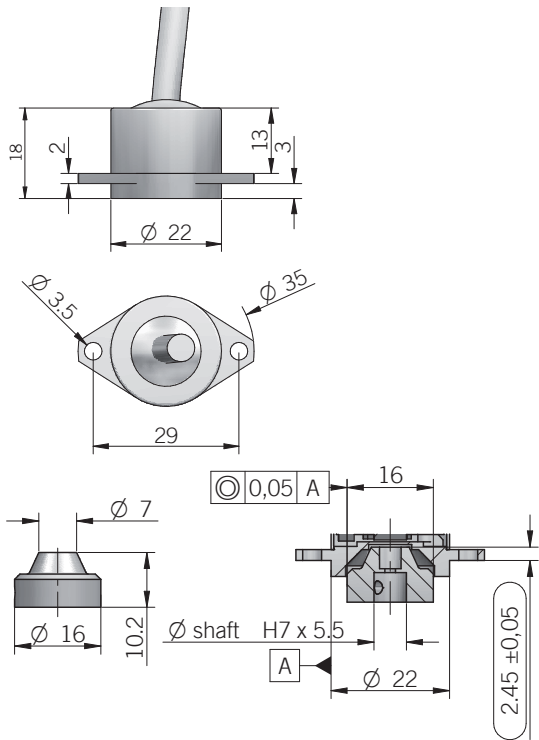
EMI series encoders are suitable for several application fields like electric motors marine industry, iron and steel industry, textile machines, wood-working, paper-working, glass working, marble-working machinery and, more generally, automation and process control fields.

- 3 channel encoder (A / B / Z) up to 2048 ppr
- Cable output, connector available on cable end
- Compact dimensions
- No wear due to no contact magnetic technology
- Bore shaft diameter up to 10 mm
- IP 67 enclosure rating
- Wide operating temperature -40° ... +125°C (-40° ... +257°F)

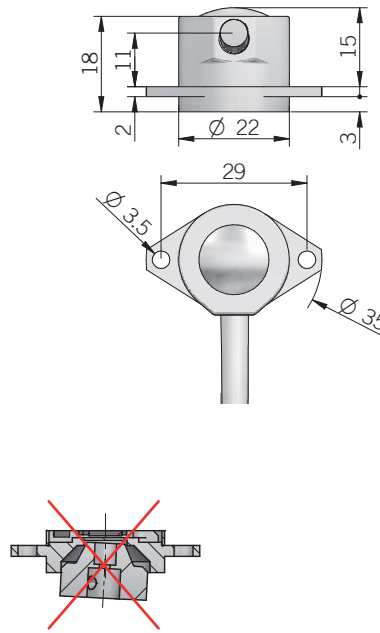


ORDERING CODE	EMI	22A	1024	Z	5	P	6	S	10	P	R	.XXX
SERIES magnetic incremental encoder series EMI												
MODEL clamping flange ø 22 mm 22A for anodized version please directly contact our offices												
RESOLUTION ppr from 2 to 2048 refer to the available pulses list												
ZERO PULSE without zero pulse S with zero pulse Z												
POWER SUPPLY 5 V DC 5												
ELECTRICAL INTERFACE push-pull P line driver RS-422 L												
MAGNET-ACTUATOR BORE DIAMETER mm 6 mm 8 (3/8") mm 9,52 mm 10												
ENCLOSURE RATING IP 67 S												
MAX ROTATION SPEED 10000 rpm 10												
OUTPUT TYPE cable (standard length 0,5 m) P preferred cable lengths 1,5 / 2 / 3 / 5 / 10 m, to be added after DIRECTION TYPE (eg. PR5)												
DIRECTION TYPE axial A radial R												
VARIANT custom version XXX												

22 A axial cable output



22 A radial cable output



dimensions in mm

ELECTRICAL SPECIFICATIONS	
Resolution	from 2 to 2048 ppr
Power supply ¹	4,5 ... 5,5 V DC
Current consumption without load	100 mA max
Max load current	20 mA / channel
Electrical interface ²	push pull / line driver RS-422 (AELT-5000 or equivalent)
Max output frequency	205 kHz
Counting direction	A leads B with clockwise rotation (flange view)
Accuracy	± 0,35° typical / ± 0,50° max
Electromagnetic compatibility	according to 2014/30/EU directive
RoHs	according to 2015/863/EU directive
UL / CSA	certificate n. E212495

CONNECTIONS		
Function	Cable P	Cable L
+V DC	red	red
0 V	black	black
A+	green	green
A-	/	brown or grey
B+	yellow	yellow
B-	/	orange
Z+	blue	blue
Z-	/	white
⏏	shield	shield

MECHANICAL SPECIFICATIONS	
Bore diameter (magnet-actuator)	∅ 6 / 8 / 9,52 (3/8") / 10 mm
Enclosure rating	IP 67 (IEC 60529)
Max rotation speed	10000 rpm
Shock	50 G, 11 ms (IEC 60068-2-27)
Vibration	10 G, 10 ... 2000 Hz (IEC 60068-2-6)
Moment of inertia (magnet-actuator)	0,1 x 10 ⁻⁶ kgm ² (2,4 x 10 ⁻⁶ lbft ²)
Bearing stage material	EN-AW 2011 aluminum
Housing material	EN-AW 2011 aluminum
Magnet-actuator material	EN-AW 2011 aluminum
Operating temperature ^{3,4}	-40° ... +125°C (-40° ... +257°F)
Storage temperature ⁴	-25° ... +85°C (-13° ... +185°F)
Weight	30 g (1,06 oz)
Magnet actuator mounting tolerances (to get best electrical performances)	± 0,2 mm (axial) ± 0,1 mm (radial)

¹ as measured at the transducer without cable influences
² for further details refer to OUTPUT LEVELS on TECHNICAL BASICS section
³ measured on the transducer flange
⁴ condensation allowed

RESOLUTIONS
2 - 4 - 8 - 10 - 16 - 20 - 32 - 40 - 64 - 80 - 100 - 125 - 128 - 200 - 250 - 256 - 400 - 500 - 512 - 1024 - 2048