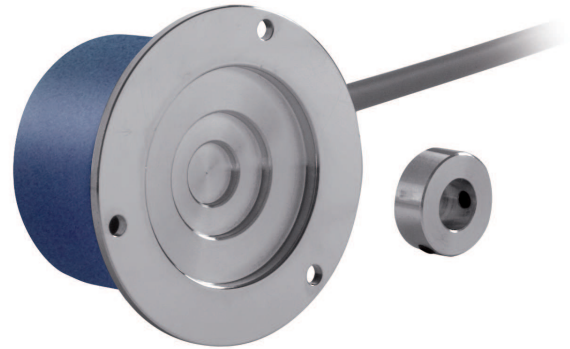


MAIN FEATURES

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.

- Compact dimensions
- Absence of physical contact between encoder and motor shaft
- High temperature resistant
- High resolution and precision
- High protection rating
- High operating speed
- Excellent mechanical sturdiness
- Very easy mounting

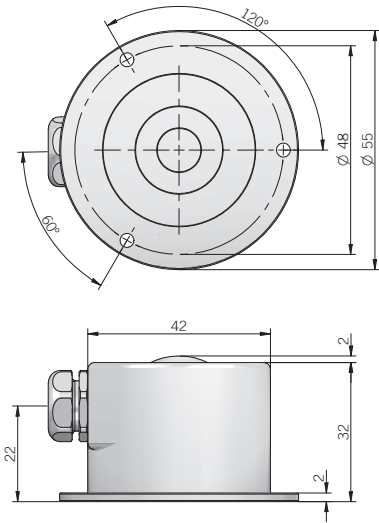


MAGNETIC INCREMENTAL ENCODERS

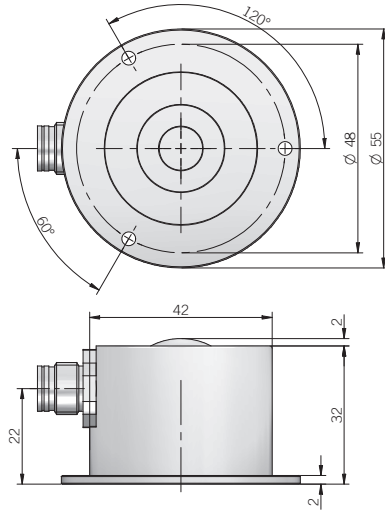
ORDERING CODE

EMI 55	A	512	Z	5/28	P	10	X	10	P	R	. XXX
SERIES magnetic incremental encoder EMI											VARIANT XXX custom version
	SIZE mm 55										OUTPUT DIRECTION A axial R radial
	TYPE BODY AND FLANGING flange type A aluminum A flange type A anodized aluminum AY										OUTPUT TYPE P cable output with cable gland (standard length 0.5 m) M12 M12 connector output (5-pin, electronic P) (8-pin, electronic L)
	RESOLUTION (only powers of 2) ppr from 2 to 2048 ppr 10 / 20 / 25 / 40 / 50 / 80 / 100 / 125 / 200 / 250 / 400 / 500 <i>please directly contact our offices for pulses availability</i>										MAX ROTATION SPEED 10 10000 rpm
	ZERO PULSE without zero pulse S with zero pulse Z										ENCLOSURE RATING X IP 64 (standard) S IP 68 (optional)
	POWER SUPPLY 5 ... 28 V DC 5/28 <i>line driver available only with 5 V DC or 8 ... 24 V DC power supply</i>										MAGNET CARRIER BORE DIAMETER 6 mm 8 mm 9 9.52 mm (3/8") 10 mm
											ELECTRONIC INTERFACE P push-pull L line driver

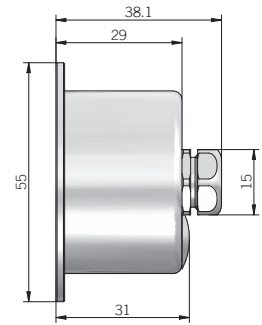
EMI 55 radial cable output



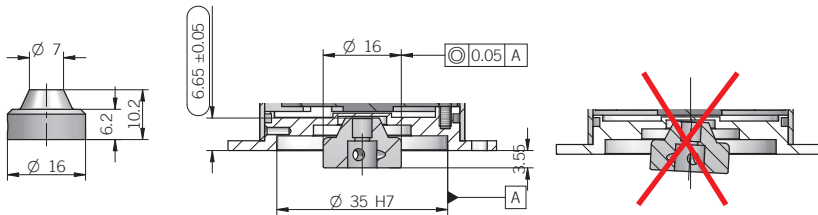
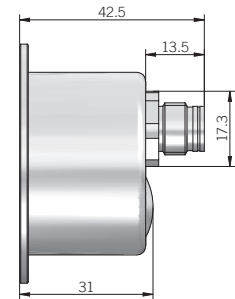
EMI 55 radial M12 output



EMI 55 axial cable output



EMI 55 axial M12 output



Electrical specifications

Resolution	up to 2048 ppr 5 V DC $\pm 10\%$
Power supply	8 ... 24 V DC / 5 ... 28 V DC $\pm 5\%$ <i>(line driver available only with 5 V DC or 8 ... 24 V DC)</i>
Current consumption without load	100 mA max
Max load current	15 mA for channel
Signal pattern	B follows A with clockwise rotation (magnet-carrier view)
Electronic interface	push-pull line driver HTL / RS422
Max output frequency	205 kHz
Accuracy	$\pm 0.35^\circ$ max
Electromagnetic compatibility	IEC 61000-6-2 IEC 61000-6-3

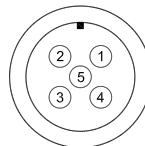
Mechanical specifications

Magnet carrier bore diameter	up to 10 mm
Enclosure rating	IP 64 (standard) (IEC 60529) IP 68 (optional) (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)
Body material	aluminum UNI 9002/5
Magnet-carrier material	aluminum UNI 9002/5
Housing material	aluminum UNI 9002/5
Operating temperature	-25° ... +125°C for 5 V DC -25° ... +100°C for 5 ... 28 V DC / 8 ... 24 V DC
Storage temperature	-25° ... +85°C
Weight	150 g
Mounting tolerances	± 0.2 mm (axial) ± 0.1 mm (radial)

Connections and standard colours

Function	Wire colours	Connector M12 (5-pin)	Connector M12 (8-pin)
0 Volt	black	4	1
+ Vdc	red	2	7
Ch. A	green	3	6
Ch. B	yellow	1	4
Ch. Z	blue	5	2
Ch. A -	brown	/	5
Ch. B -	orange	/	3
Ch. Z -	white	/	8
⏏	shield	/	/

M12 connector (5-pin)
(front view)



M12 connector (8-pin)
(front view)

