



EMI 55 A / AY

MAGNETIC INCREMENTAL KIT ENCODER

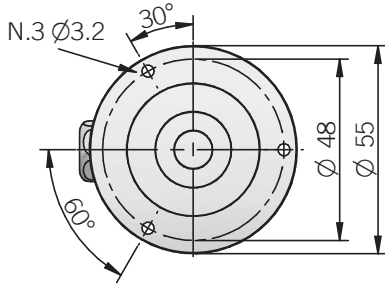
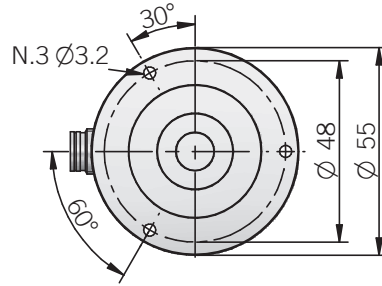
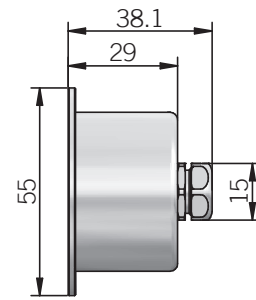
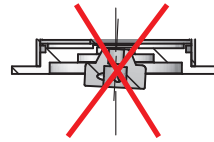
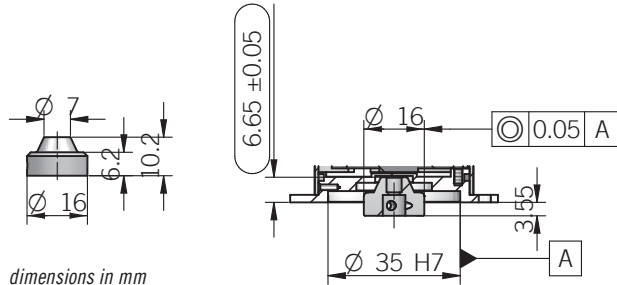
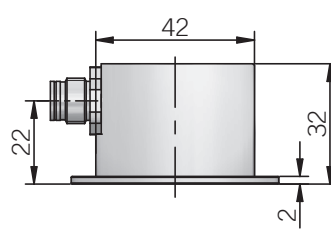
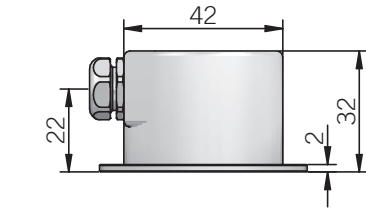
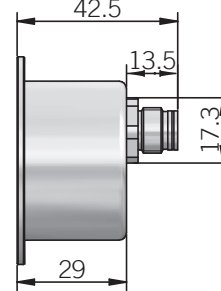


Specifications

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
- Power supply up to +28 VDC with several electronic interfaces available
- Cable or M12 connector output, other connectors 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	55A	512	Z	5/28	P	10	X	10	P	R	.XXX
SERIES magnetic incremental encoder series EMI												
MODEL fixing holes ø 48 mm 55A fixing holes ø 48 mm anodized 55AY												
RESOLUTION ppr from 2 to 2048 see table for pulses availability												
ZERO PULSE without zero pulse S with zero pulse Z												
POWER SUPPLY (with L electronic interface) 5 V DC 5 (with L or PC electronic interface) 8 ... 24 V DC 8/24 5 ... 28 V DC 5/28												
ELECTRONIC INTERFACE push-pull P push-pull protected (AEIC-7272) PC line driver L power supply 5/28 V - output RS-422 RS												
MAGNET ACTUATOR BORE DIAMETER mm 6 mm 8 9,52 (3/8") mm 9 mm 10												
ENCLOSURE RATING IP 64 X IP 67 S												
MAX ROTATION SPEED 10000 rpm 10												
OUTPUT TYPE cable (standard length 0,5 m) P M12 connector M12 <i>female connector included, without female please add 162 as variant code</i>												
DIRECTION TYPE axial A radial R												
VARIANT custom version XXX												

EMI 55 radial cable output

EMI 55 radial M12 output

EMI 55 axial cable output

EMI 55 axial M12 output


dimensions in mm

ELECTRICAL SPECIFICATIONS

Resolution	from 2 to 2048 ppr
Power supply	5 = 4,5 ... 5,5 V DC 5/28 = 4,75 ... 29,4 V DC 8/24 = 7,6 ... 25,2 V DC (reverse polarity protection)
Power draw without load	800 mW max
Max load current	15 mA / channel
Output type*	push-pull / line driver
Max output frequency	205 kHz
Counting direction	A leads B clockwise (magnet-actuator view)
Accuracy	± 0,35° typical / ± 0,50° max
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	5 pin M12 output Push-pull	8 pin M12 output Line Driver
0 Volt	black	4	1
+V DC	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	housing	housing

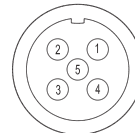
MECHANICAL SPECIFICATIONS

Bore diameter (magnet-actuator)	∅ 6 / 8 / 9,52 (3/8") / 10 mm
Enclosure rating	X = IP 64 (IEC 60529) S = 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
Body material	EN-AW 2011 aluminum
Housing material	EN-AW 2011 aluminum
Magnet-actuator material	EN-AW 2011 aluminum
Operating temperature	-40° ... +125°C (-40° ... +257°F) (only for 5 V DC) -40° ... +100°C (-40° ... +212°F)
Storage temperature	-40° ... +125°C (-40° ... +257°F)
Weight	150 g (5,29 oz)
Magnet actuator mounting tolerances (to get best electrical performances)	± 0,2 mm (axial) ± 0,1 mm (radial)

RESOLUTIONS

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

please directly contact our offices for other pulses

 M12 connector (5 pin)
M12 A coded
solder side view FV

 M12 connector (8 pin)
M12 A coded
solder side view FV
