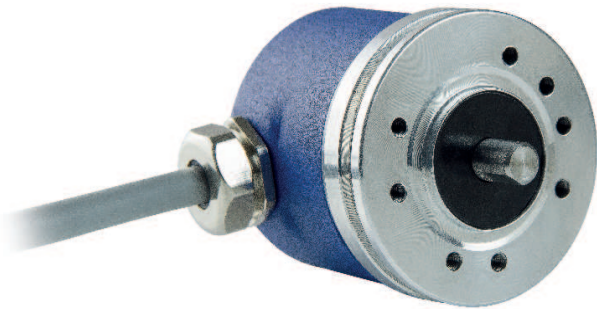




EMI 40 A

MAGNETIC INCREMENTAL SOLID SHAFT ENCODER



Specifications

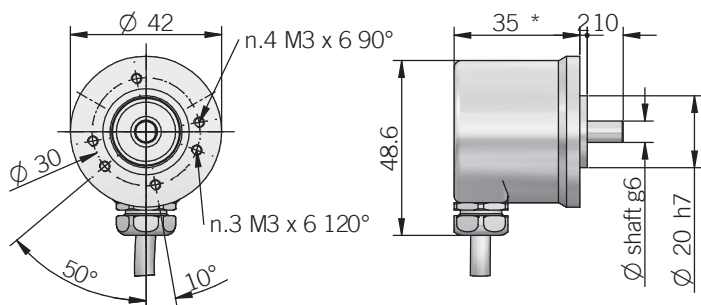
Thanks to the magnetic technology, EMI 40 series is suitable for harsh environment applications such as marble and glass working machines, washing systems and generally for industrial automation.

- 3 channel encoder (A / B / Z) up to 2048 ppr
- Power supply up to +28 VDC with several electronic interfaces available
- Cable output, connector available on cable end
- Compact dimensions
- Solid shaft diameter up to 6 mm
- Sturdy construction due to separated chambers design
- Wide operating temperature -25° ... +100°C (-13° ... +212°F)

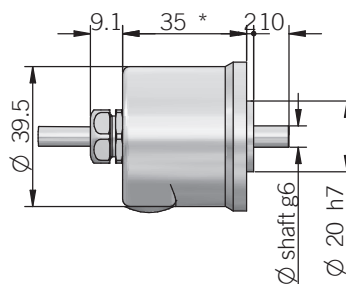
ORDERING CODE	EMI	40A	1024	Z	5	L	6	X	3	P	R	.XXX
SERIES magnetic incremental encoder series EMI												
MODEL clamping flange ø 20 mm		40A										
RESOLUTION ppr from 2 to 2048 <i>see table for pulses availability</i>			1024									
ZERO PULSE without zero pulse with zero pulse				Z								
POWER SUPPLY (with L electronic interface) 5 V DC (with L or PC electronic interface) 8 ... 24 V DC 5 ... 28 V DC					5	L	6					
ELECTRONIC INTERFACE push-pull push-pull protected (AEIC-7272) line driver						L		X		P		
SHAFT DIAMETER mm mm							4					
ENCLOSURE RATING IP 64 IP 66								X		S		
MAX ROTATION SPEED (IP 66) 3000 rpm (IP 64) 6000 rpm									3			
OUTPUT TYPE cable (standard length 0,5 m)										P		
DIRECTION TYPE axial radial											A	R
VARIANT custom version												XXX



EMI 40 A radial cable output



Dimensions with axial cable output



* IP66 + 7mm

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)
Current consumption without load	80 mA max
Max load current	15 mA / channel
Output type*	push-pull / line driver
Max output frequency	205 kHz
Counting direction	A leads B clockwise (shaft 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

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

CONNECTIONS

Function	Cable output Push-pull	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

Shaft diameter	Ø 4 / 6 mm
Enclosure rating	X = IP 64 (IEC 60529) S = IP 66 (IEC 60529)
Max rotation speed	3000 rpm (IP 66) 6000 rpm (IP 64)
Max shaft load	5 N axial / radial
Shock	50 G, 11 ms (IEC 60068-2-27)
Vibration	10 G, 10 ... 2000 Hz (IEC 60068-2-6)
Moment of inertia	0,5 x 10 ⁻⁶ kgm ²
Starting torque (at +20°C / +68°F)	< 0,02 Nm
Body material	EN-AW 2011 aluminum
Shaft material	1.4305 / AISI 303 stainless steel
Housing material	painted aluminum
Bearings	2 ball bearings
Bearing lifetime	10 ⁹ revolutions
Operating temperature	-25° ... +100°C (-13° ... +212°F)
Storage temperature	-25° ... +85°C (-13° ... +185°F)
Weight	150 g (5,29 oz)