

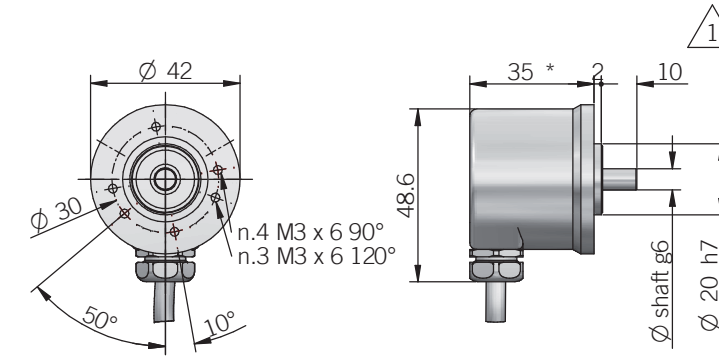
### MAIN FEATURES

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 V DC with several electrical interfaces available
- Cable output, connectors 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)

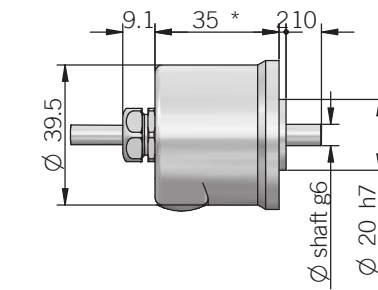


### 40 A radial cable output



recommended mating shaft tolerance H7  
dimensions in mm

### 40A axial cable output



\* IP66 + 7 mm

### ORDERING CODE

EMI	40A	1024	Z	5	L	6	X	3	P	R	.XXX
<p><b>SERIES</b> magnetic incremental encoder series EMI</p> <p><b>MODEL</b> clamping flange <math>\varnothing</math> 20 mm 40A</p> <p><b>RESOLUTION</b> ppr from 2 to 2048 refer to the available pulses list</p> <p><b>ZERO PULSE</b> without zero pulse S with zero pulse Z</p> <p><b>POWER SUPPLY</b> (with L electrical interface) 5 V DC 5 (with L electrical interface) 8 ... 24 V DC 8/24 5 ... 28 V DC 5/28</p> <p><b>ELECTRICAL INTERFACE</b> push-pull P line driver L</p> <p><b>SHAFT DIAMETER</b> mm 4 mm 6</p> <p><b>ENCLOSURE RATING</b> IP 64 X IP 66 S</p> <p><b>MAX ROTATION SPEED</b> (IP 66) 3000 rpm 3 (IP 64) 6000 rpm 6</p> <p><b>OUTPUT TYPE</b> 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)</p> <p><b>DIRECTION TYPE</b> axial A radial R</p> <p><b>VARIANT</b> custom version XXX</p>											

### ELECTRICAL SPECIFICATIONS

<b>Resolution</b>	from 2 to 2048 ppr
<b>Power supply<sup>1</sup></b>	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)
<b>Current consumption without load</b>	80 mA max
<b>Max load current</b>	20 mA / channel
<b>Electrical interface<sup>2</sup></b>	push-pull / line driver HTL (AELC-7272) line driver RS-422 (AELT-5000 or equivalent)
<b>Max output frequency</b>	205 kHz
<b>Counting direction</b>	A leads B clockwise (shaft view)
<b>Accuracy</b>	$\pm 0,35^\circ$ typical / $\pm 0,50^\circ$ max
<b>Electromagnetic compatibility</b>	according to 2014/30/EU directive
<b>RoHS</b>	according to 2011/65/EU (01/09/2020) directive
<b>UL / CSA</b>	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
$\equiv$	shield	shield

### MECHANICAL SPECIFICATIONS

<b>Shaft diameter</b>	$\varnothing$ 4 / 6 mm
<b>Enclosure rating</b>	X = IP 64 (IEC 60529) S = IP 66 (IEC 60529)
<b>Max rotation speed</b>	IP 66 - 3000 rpm IP 64 - 6000 rpm
<b>Max shaft load<sup>3</sup></b>	5 N axial / radial
<b>Shock</b>	50 G, 11 ms (IEC 60068-2-27)
<b>Vibration</b>	10 G, 10 ... 2000 Hz (IEC 60068-2-6)
<b>Moment of inertia</b>	$0,5 \times 10^{-6} \text{ kgm}^2$ ( $12 \times 10^{-6} \text{ lbft}^2$ )
<b>Starting torque (at +20°C / +68°F)</b>	< 0,02 Nm (2,83 Ozin) IP 64 < 0,05 Nm (7,10 Ozin) IP 66
<b>Bearing stage material</b>	EN-AW 2011 aluminum
<b>Shaft material</b>	1.4305 / AISI 303 stainless steel
<b>Housing material</b>	painted aluminum
<b>Bearings</b>	n.2 ball bearings
<b>Bearing lifetime</b>	10 <sup>9</sup> revolutions
<b>Operating temperature<sup>4,5</sup></b>	-25° ... +100°C (-13° ... +212°F)
<b>Storage temperature<sup>5</sup></b>	-25° ... +85°C (-13° ... +185°F)
<b>Weight</b>	150 g (5,29 oz)

<sup>1</sup> as measured at the transducer without cable influences

<sup>2</sup> for further details refer to OUTPUT LEVELS on TECHNICAL BASICS section

<sup>3</sup> maximum load for static usage

<sup>4</sup> measured on the transducer flange

<sup>5</sup> condensation not allowed

### RESOLUTIONS

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

# کانون ابزار

تلفن:

021 66 39 39 00

0912 147 3023

ali5.ir