

MAIN FEATURES

Thanks to the magnetic technology, EMA - EMS 40 is suitable for harsh environment applications such as marble and glass working machine, metal working machine, washing system and generally for industrial automation.

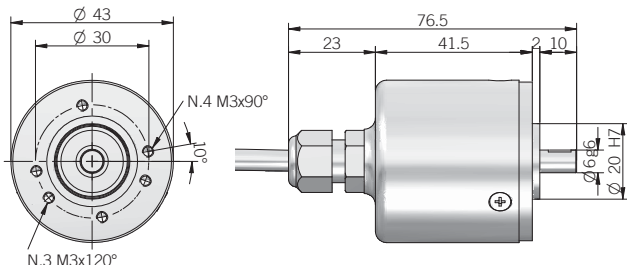
EMA - EMS 40 is available with SSI and analog output.



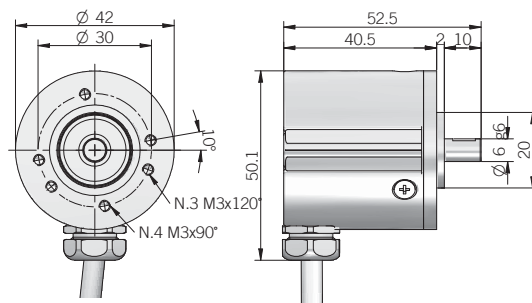
ORDERING CODE

EM	A	40	A	512	B	5	S	P	X	6	X	6	PR	. XXX
SERIES magnetic encoder EM	TYPE absolute A sinusoidal S	SIZE mm 40	FLANGE A	RESOLUTION (EMA series) (only powers of 2) ppr from 4 to 8192 (EMA series) ppr 40 / 80 / 100 / 160 / 200 / 320 / 400 / 500 / 800 / 1000 / 1600 / 2000 (EMS series) ppr 1 <i>please directly contact our offices for pulses availability</i>				ENCLOSURE RATING X IP 64 S IP 65				MAX ROTATION SPEED 3 3000 rpm (only with S option) 6 6000 rpm	OUTPUT TYPE PA axial cable output with SKINTOP® (standard length 0.5 m) PR radial cable output with SKINTOP® (standard length 0.5 m)	VARIANT XXX custom version
				CODE (EMA series) binary B (EMS series) unused option X				OPTION X unused option						
				POWER SUPPLY 5 V DC 5 8 ... 24 V DC 8/24				LOGIC P positive (EMA series) X unused option (EMS series)						
				OUTPUT TYPE (EMA series) SSI S (EMS series) sine - cosine line driver L										
								SHAFT DIAMETER 4 ϕ 4 mm 6 ϕ 6 mm						

EMA - EMS 40 PA output



EMA - EMS 40 PR output



Electrical specifications

Resolution	up to 8192 ppr (EMA series) 1 ppr (EMS series)
Current consumption without load	100 mA max
Max load current	15 mA per channel (EMS)
Power supply	5 V DC $\pm 10\%$ 8 ... 28 V DC $\pm 5\%$
Output types	RS422 SSI (EMA series) sine - cosine (EMS series)
Max output frequency	1 MHz (EMA series) 1 KHz (EMS series)
Monostable time (SSI)	10 ÷ 25 μ s
Counting direction	decreasing clockwise (shaft view)
Accuracy	$\pm 0.35^\circ$ max
Electromagnetic compatibility	IEC 61000-6-2 IEC 61000-6-3

Mechanical specifications

Bore diameter	4 / 6 mm
Enclosure rating	IP 64 IP 65
Max rotation speed	6000 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
Shaft material	stainless steel UNI X10CrNiS1809
Housing material	PA66 glass fiber reinforced
Bearings	2 ball bearings
Bearings life	10 ⁹ revolution
Operating temperature	-25° ... +100 °C
Storage temperature	-25° ... +85 °C
Weight	100 g

Connections for EMA series

Function	Wire colour	Connector M12 (8-pin)
+ V dc	red	8
0 Volt	black	5
data +	green	3
data -	brown	2
clk +	yellow	4
clk -	orange or pink	6
---	shield	/

Connections for EMS series

Function	Wire colour	Connector M12 (8-pin)
+ V dc	red	8
0 Volt	black	5
sin +	green	3
sin -	brown	2
cos +	yellow	4
cos -	orange or pink	6
---	shield	/

Connector M12 (8-pin)
(front view)

