

SINGLE TURN ABSOLUTE ENCODERS

- High resolution, Binary code
- SSI output

- Different mechanical versions available
- ABS plastic (EMA) or metal case (REMA)
- Strong, accurate, affordable

MECHANICAL VERSIONS

Series EMA520:	Series EMA540	Series EMA510	Series REMA530
Ø 58 mm round flange Servo coupling Ø 50 mm centering mask Shaft Ø 6, 8, 9.52 or 10 mm	Ø 58 mm round flange Servo coupling Ø 36 mm centering mask 3 M4 holes 120° on Ø 48 mm	Ø 58 mm round flange Servo coupling Ø 31.75 mm centering mask Shaft Ø 6, 8, 9.52 or 10 mm	Flange type RE0444 Shaft Ø 11 mm Aluminium case
Series EMA410	Series EMA430	Series EMA620:	Series EMA650:
Hollow shaft for motor shaft coupling – hole Ø 8, 10, 12, 14 or 15 mm	Hollow shaft for motor shaft coupling – hole Ø 8, 10, 12, 14 or 15 mm Antirotational elastic support	63.5x63.5 square flange Ø 31.75 mm centering mask Shaft Ø 6, 8, 9.52 or 10 mm	63.5x63.5 square flange Ø 50 mm centering mask Shaft Ø 6, 8, 9.52 or 10 mm

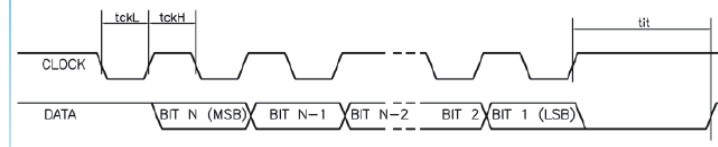
MECHANICAL & ENVIRONMENTAL SPECIFICATIONS

	TYPE EMA520/EMA510/EMA540	EMA620/EMA650	REMA530	EMA410/EMA430
• Weight	500 g ca.			
• Materials: case shaft	Series EMA: ABS plastics – Series REMA: aluminium stainless steel			
• Shaft/Joint hole diameter	6, 8, 9.52 or 10 mm		11 mm	Joint hole Ø 8, 10, 12, 14, 15 mm
• Revolutions/minute	6000			
• Starting torque	≤0.8 Ncm			
• Inertia	≤ 25 g cm ²			
• Max. load	80 N axial / 1000 N radial			
• Shock resistance (11 ms)	50 G			
• Vibrations resistance (10-2000 Hz)	100 m/sec ²			
• Protection degree	IP64, optional IP65 (version K)			
• Operating temperature	-30 ÷ +70°C			
• Stocking temperature	-30 ÷ +85°C			

ELECTRICAL & OPERATING

• Resolution	5 ÷ 13 bit
• Code	Binary
• Output signals	SSI 5V
• Supply voltage	5Vdc ±5% or 10/24Vdc or 5/24Vdc 5 ÷ 28 Vdc Protection against polarity reversal
• Power consumption	60 mA
• Max frequency	200 KHz
• SSI Clock max. frequency	1 MHz
• Accuracy	±1 ÷ ±1/2 LSB
• Frequency	100 KHz
• Interference immunity	EN 61000-6-2
• Emitted interference	EN 61000-6-4
• Connections	axial or radial cable lg.1 m or axial/radial 7-pin connector 12/13 bit with parallel output version: radial cable outlet- cable length 1 m

SSI INTERFACE SIGNALS



MSB: bit Most Significant Bit
 LSB: bit Less Significant Bit
 tckL: 0.5 µs min.
 tckH: 0.5 µs min.
 tit: 30 µs typical

(tit: when the tit time lag expires the encoder considers the interrogation ended)

OUTPUT SIGNALS

SSI OUTPUT SIGNALS	CABLE COLOURS	7-PIN CONNECTOR
Clock+	White	PIN 1
Clock-	Brown	PIN 2
Data+	Green	PIN 3
Data-	Yellow	PIN 4
Reset	Pink	PIN 5
0V	Blue	PIN 12
+Vdc	Red	PIN 11

The output code is increasing with shaft rotating clockwise (shaft side sight).

ORDERING INFORMATION

EMA.docx VV
 11/09

EMA520	C	12B	2/24	R	8	SSI
						OUTPUT SIGNALS SSI = SSI
						SHAFT DIAMETER/JOINT HOLE Shaft 6 – 8 – 9.52 – 10 mm -11 mm (MRE530) Joint hole 8 – 10 – 12- 14 – 15 mm
						CONNECTIONS OUTLET A axiale /R radial 7-pin connector / 1 m cable
						SUPPLY 5/28 Vdc 18/24 Vdc (analogue output only)
						RESOLUTION & CODE 8 – 9 – 10 – 11 – 12 -13 bit B = Binary code G = Gray code
						MECHANICAL PECULIARITIES (Optional field) - = Standard version C = Cable outlet K = Sealing O-ring
TYPE						
EMA520 – EMA540 – EMA510 – EMA530 Round flange						
EMA620 – EMA650 Square flange						
EMA410 – EMA430 Hollow shaft						

Variations admitted without notice

