



RE520



E540



E510

INCREMENTAL ROTARY ENCODERS Round Flange

- **Incremental rotary encoders with or without zero pulse**
- **Pulses per revolution: 2 to 36000**
- **ABS or aluminium case (series RE - REV)**
- **Several configurations available**

MECHANICAL VERSIONS

E520/E521	E540/541	E510/511	RE530/531
Body Ø: 58 mm	Body Ø: 58 mm	Body Ø: 58 mm	Body Ø: 58 mm
Flange Ø: 58 mm	Flange Ø: 58 mm	Flange Ø: 58 mm	Flange: RE0444
Servo coupling	Centering mask Ø 36 mm	Servo coupling	Shaft Ø 11 mm
Centering mask Ø 50 mm	Shaft Ø 6, 8, 9.52, 10 mm	Centering mask Ø 31,75 mm	Aluminium
Shaft Ø 6, 8, 9.52, 10 mm		Shaft Ø 6, 8, 9.52, 10 mm	

Encoder series **E**: **ABS plastic case**
Encoder series **RE**: **Aluminium**

Encoder series **REV**: **aluminium case, glass disk,**
PPR range: 1000 ÷ 36000

MECHANICAL & ENVIRONMENTAL SPECIFICATIONS

	E520 E540 E510	RE530
• Materials: case shaft	ABS / aluminium (RE/REV) AISI 303 steel	
• Weight	280 g ca / series RE/REV 400 g ca	
• Shaft Ø	6, 8, 9.52, 10 mm	11 mm
• Revolutions/minute	6000 continuos/10000 temporary*	
• Starting torque	≤0,8 Ncm	
• Inertia	≤25 g cm ²	
• Max load	80 N axial/100 N radial	
• Vibration resistance (10÷2000 Hz)	100 m/sec ²	
• Shock resistance (11 ms)	50 G	
• Protection degree	IP64 / optional IP65 with sealing ring*	
• Operating temperature	-10 ÷ 70°C	
• Stacking temperature	-20 ÷ 80°C	

*Max operating speed with IP65 sealing ring applied on the shaft: 3000 rpm

ELECTRICAL & OPERATING SPECIFICATIONS

• Pulse code	Incremental
• Pulses per revolution	2 ÷ 12500 series REV : 1000 ÷ 36000
• Zero reference pulse	one pulse/revolution
• Output signals	Two square waves 90° ±15° out of phase – Zero pulse width: 90°±15°
• Electronic outputs	push-pull, NPN open collector, 5Vdc or 8/24Vdc line driver signals protected against short circuits
• Supply voltage	5Vdc or 8/24Vdc - protection against polarity reversal
• Absorption	30÷80 mA max
• Max frequency	100/200 KHz
• Connections	Axial or radial cable 3 m long /1 m for line driver output Axial or radial MS connector, 7-pin/10-pin for line driver output*

*The encoder configuration: *zero pulse + line drive output +radial connector outlet* can only be supplied with *aluminium case (series RE)*



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RE530



RE520



E520

CONNECTIONS

SIGNALS	Push Pull – Open Collector NPN		SIGNALS	Line Driver	Cable colours	10-pin connector	Cable colours
	7-pin connector	Cable colours					
	<i>DIAGRAM 1</i>	<i>DIAGRAM 2</i>		<i>DIAGRAM 3</i>		<i>DIAGRAM 4</i>	
				without 0 pulse		with 0 pulse	
Out 1	A	C	Out 1	A	White	A	White
Out 2	B	E	Out 2	B	Green	B	Green
Out Z	C	D	Out Z			C	Grey
+ Vdc	D	F	+ Vdc	D	Red	D	Red
0V	F	A	+ Vdc			E	Red
Non-connected	E	B	0V	F	Blue	F	Blue
Non-connected	G	G	Out 1	C	Brown	G	Brown
Earth			Out 2	E	Yellow	H	Yellow
		Shield	Out Z			I	Pink
			Non-connected	G		J	Shield

ORDERING INFORMATION

E520	C	1000	8/24	R	6	PP	2
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CONNECTION DIAGRAM
2 – 4

OUTPUT SIGNALS
PP Push-pull
OC NPN Open Collector
LD Line-driver

SHAFT Ø
6 - 8 – 9.52 - 10 RE530: 11 mm

CONNECTIONS POSITIONS
A Axial
R Radial

SUPPLY VOLTAGE
8/24 Vdc
5 Vdc

PPR
2 ÷ 12500 series E/RE
1000 ÷ 36000 series REV

CONNECTION OUTLET
- Connector
C Cable

TYPE
E520 – E540 – E510 Plastic case, no zero pulse, 2÷12500 ppr
E521 – E541 – E511 – E431 Plastic case, zero pulse, 2÷12500 ppr
RE520 – RE540 – RE510 – RE530 Aluminium case, no zero pulse, 2÷12500 ppr
RE521 – RE541 – RE511 – RE531 Aluminium case, zero pulse, 2÷12500 pp
REV520 – REV540 – REV510 – REV530 Aluminium case, no zero pulse, 1000÷36000 ppr
REV521 – REV541 – REV511 – REV531 Aluminium case, zero pulse, 1000÷36000 ppr

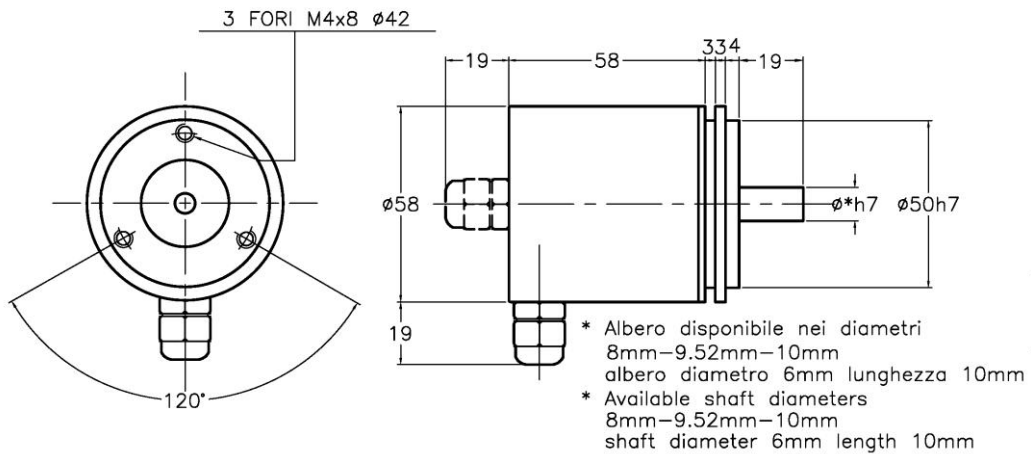
VARIATIONS ADMITTED WITHOUT NOTICE

Dimensional drawings available at
www.elap.it/eng/incremental-encoders/encoder-e520.html

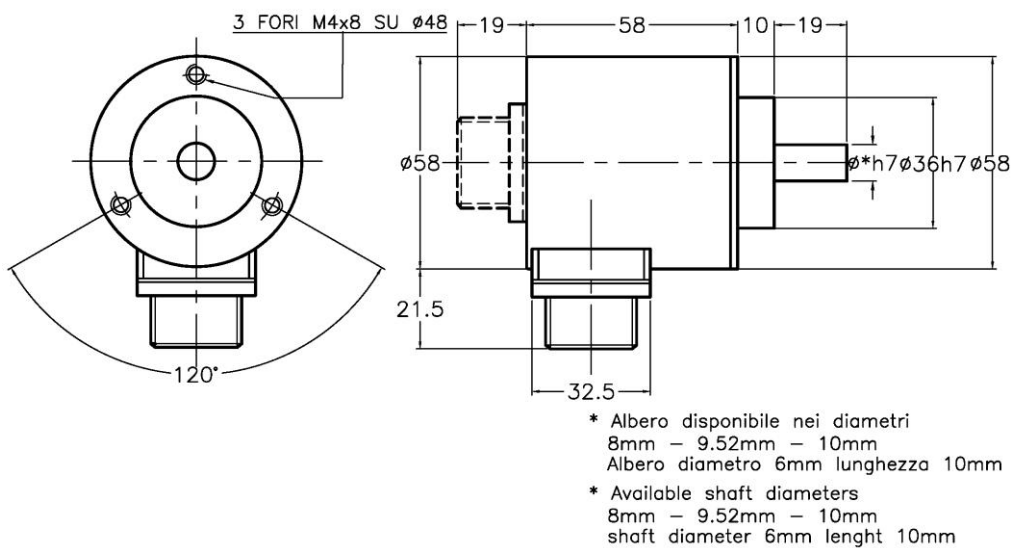


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E520 uscita serracavo
E520 cable outlet

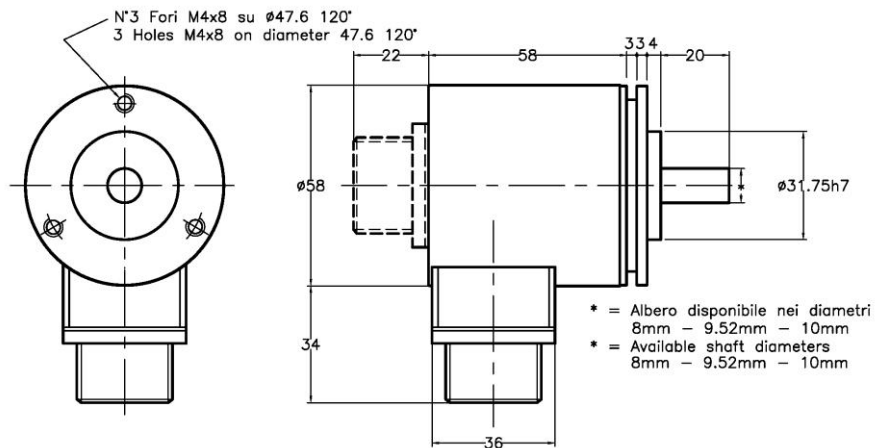


E540 uscita connettore 7p
E540 7pin outut connector

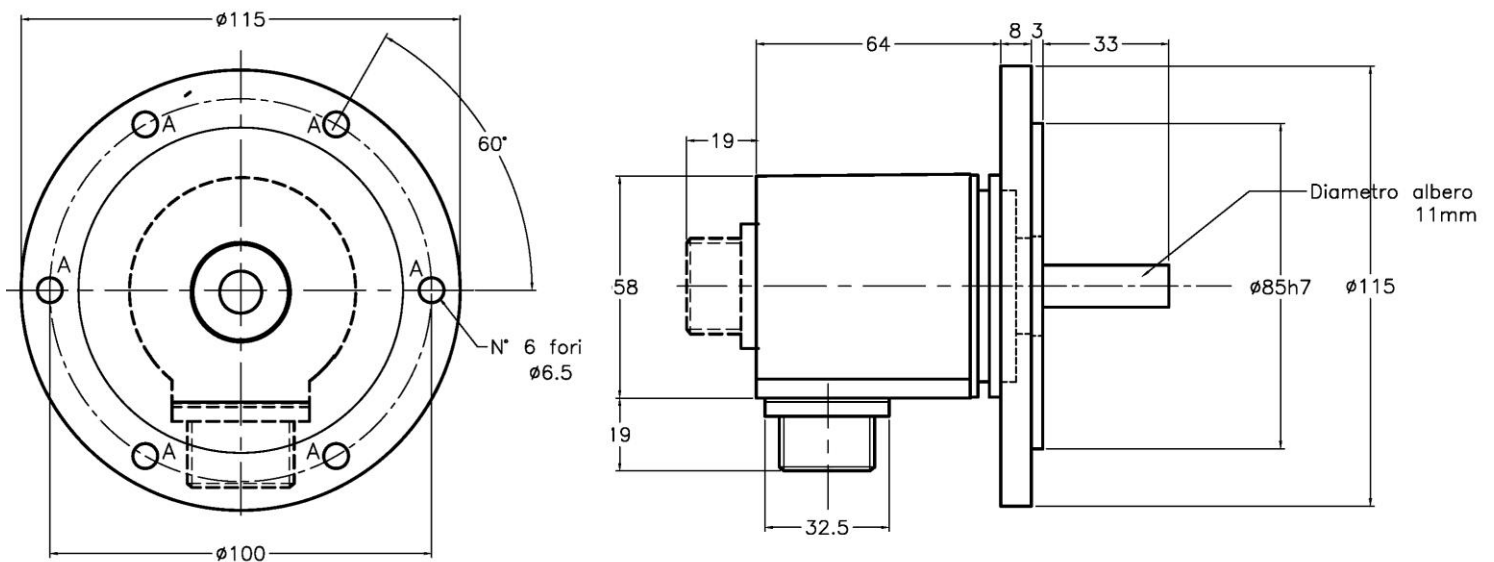


DIMENSIONS

E510 uscita connettore 10p
E510 10pin ouput connector



RE530 uscita connettore 7p
RE530 7 pin output connector



Further dimensional drawings available at
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