



RE/REM520



RE/REM540



RE/REM510

RE/REM Round Flanged INCREMENTAL ROTARY ENCODERS

- Incremental rotary encoders with or without zero pulse
- Pulses per revolution: 2 to 12500
- Aluminium housing
- Several configurations available

MECHANICAL VERSIONS			
RE520 • REM520	RE/E540 • REM/EM540	RE/E510 • REM/EM510	RE/REM530
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	
SYNCHRO FLANGE	CLAMPING FLANGE		
PULSES PER REVOLUTION			
Series RE	Magnetic series REM		
2, 5, 10, 15, 20, 25, 27, 30, 40, 50, 60, 80, 100, 115, 125, 150, 180, 200, 250, 256, 300, 360, 500, 600, 720, 750, 800, 900, 1000, 1200, 1250, 1440, 1500, 1800, 2000, 2400, 2500, 2700, 2880, 3000, 3600, 4000, 4500, 5000, 7200, 8000, 9000, 10000, 12500	8, 10, 16, 20, 25, 32, 40, 50, 64, 80, 100, 125, 128, 200, 250, 256, 400, 500, 512, 1024, 2048		

MECHANICAL & ENVIRONMENTAL SPECIFICATIONS		
	RE/REM 520 • 540 • 510	RE/REM530
• Materials: housing shaft	Aluminium AISI 303 steel	
• Weight	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	IP65 / optional IP66 with sealing ring*	
• Operating temperature	-10 ÷ 70°C	
• Stocking temperature	-20 ÷ 80°C	

ELECTRICAL & OPERATING SPECIFICATIONS	
• Pulse code	Incremental
• Pulses per revolution	RE 2 ÷ 12500 REM 8÷2048
• 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 5/30 Vdc line driver signals protected against short circuits
• Supply voltage	5/30 Vdc protection against polarity reversal
• Absorption	30÷80 mA max
• Max frequency	100/200 KHz for ppr>1250
• 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

*Max operating speed with IP66 sealing ring applied on the shaft: 3000 rpm

* NPN open collector: series **RE** only



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RE/REM530



RE/REM540



RE/EM520

CONNECTIONS

SIGNALS	Push Pull – Open Collector NPN		SIGNALS	Line Driver		10-pin connector	Cable colours	
	7-pin connector	Cable colours		7-pin connector	Cable colours			
	<i>DIAGRAM 1</i>	<i>DIAGRAM 2</i>		<i>DIAGRAM 3</i>	without 0 pulse	<i>DIAGRAM 4</i>	with 0 pulse	
Out 1	A	C	White	Out 1	A	White	A	White
Out 2	B	E	Green	Out 2	B	Green	B	Green
Out Z <small>RE/REM5x1</small>	C	D	Brown	Out Z			C	Grey
+ Vdc	D	F	Red	+ Vdc	D	Red	D	Red
0V	F	A	Blue	+ Vdc			E	Red
Non-connected	E	B		0V	F	Blue	F	Blue
Non-connected	G	G		Out 1	C	Brown	G	Brown
Earth			Shield	Out 2	E	Yellow	H	Yellow
				Out Z			I	Pink
				Non-connected	G		J	Shield

ORDERING INFORMATION

RE520	C	1000	5/30	R	6	PP	2
							CONNECTION DIAGRAM 2 – 4
							OUTPUT SIGNALS PP Push-pull OC NPN Open Collector (RE only) LD Line-driver
							SHAFT Ø 6 -8 – 9.52 - 10 RE/REM530: 11 mm
							CONNECTIONS POSITIONS A Axial R Radial
							SUPPLY VOLTAGE 5/30 Vdc
							PPR RE 2 ÷ 12500 REM 8 ÷ 2048
							CONNECTION OUTLET & SEALING RING - Connector C Cable K Connector and O-ring on the shaft J Cable and O-ring on the shaft

TYPE

RE/REM520 – RE/REM540 – RE/REM510 – RE/REM530 no zero pulse
RE/REM521 – RE/REM541 – RE/REM511 – RE/REM531 zero pulse

ELAP RESERVES THE RIGHT TO UPGRADE THE PRODUCT WITHOUT NOTICE

REC 520/540/530

Compact encoders
2÷12500 ppr

Body Ø 58 mm, h 38 mm • M12 connector or cable outlet • Aluminium housing



REV 520/540

Glass disk encoders
1000÷50000 ppr

Body Ø 58 mm • Aluminium housing



REP 520/540/510/530

Programmable encoders

8÷2048 ppr settable by the user

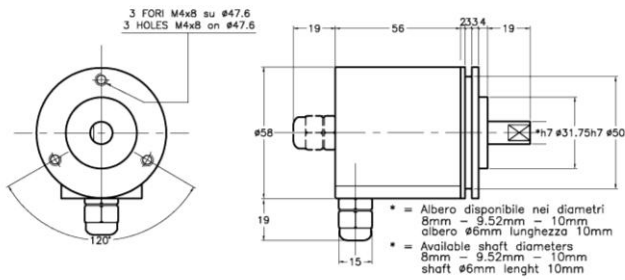
Body Ø 58 mm • Aluminium housing • Magnetic reading • Zero pulse



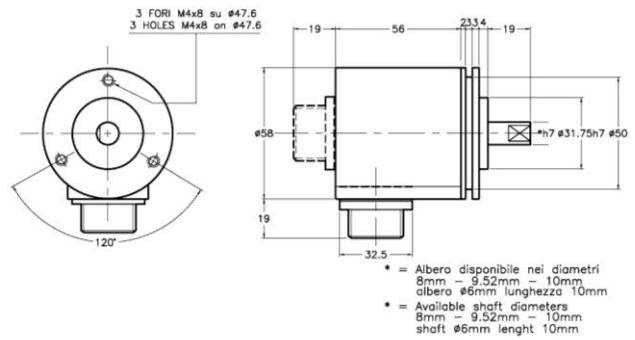
DIMENSIONS

RE/REM510

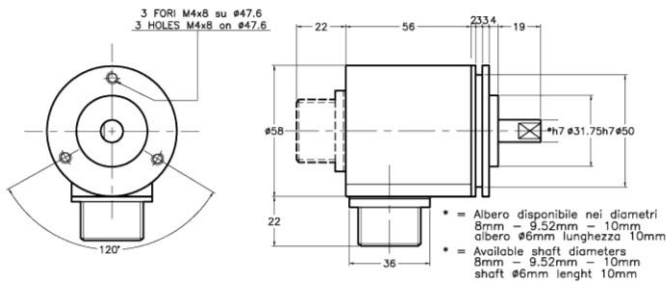
RE510 uscita serracavo
RE510 cable output



RE510 uscita connettore 7p
RE510 7pin output connector



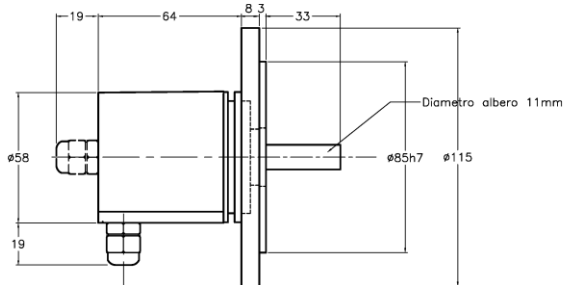
RE510 uscita connettore 10p
RE510 10pin output connector



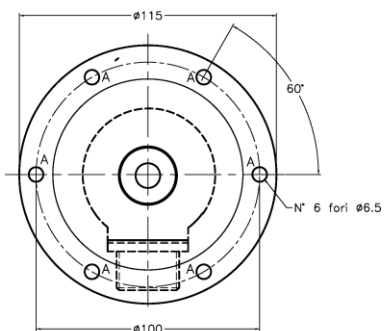
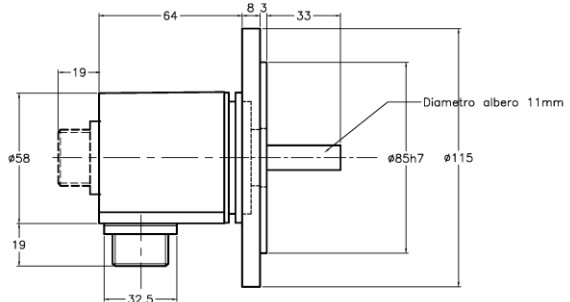
RE/REM530

Ref. M1974

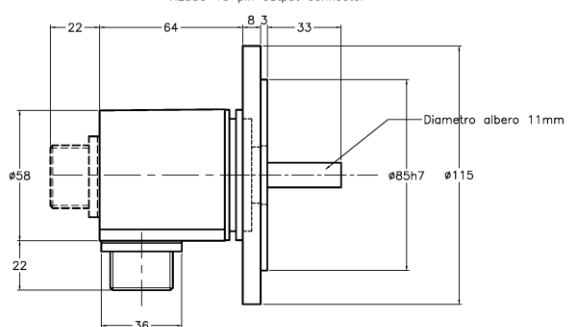
RE530 uscita serracavo
RE530 cable output



RE530 uscita connettore 7p
RE530 7 pin output connector



RE530 uscita connettore 10p
RE530 10 pin output connector



Ref. M1137

REFERENCES

Further information and dimensional drawings at the following links:

<https://www.elap.it/incremental-encoders/encoder-re520/>
<https://www.elap.it/incremental-encoders/encoder-rem/>



Encoder RE5xx Encoder REM