



REV520



REV540



REV620

# INCREMENTAL ROTARY ENCODERS

## Series REV

- Incremental rotary encoders with or without zero pulse
- Pulses per revolution: 1000 to 50000
- Aluminium housing

### VERSIONI MECCANICHE

REV520 <i>Synchro Flange</i>	REV540 <i>Clamping Flange</i>	REV620 <i>Square Flange</i>
Body Ø: 58 mm	Body Ø: 58 mm	Body Ø: 58 mm
Flange Ø: 58 mm	Flange Ø: 58 mm	Flange mm 63.5x63.5
Servo coupling	Centering mask Ø 36 mm	Centering mask Ø 31.75 mm
Centering mask Ø 50 mm	Shaft Ø 6, 8, 10 mm (standard 10 mm)	Shaft Ø 6, 8, 10 mm (standard 8/10 mm)
Shaft Ø 6, 8, 10 mm (standard 6 mm)		

### MECHANICAL & ENVIRONMENTAL SPECIFICATIONS

• Materials: case shaft	Aluminium AISI 303 steel
• Weight	400 g circa
• Shaft Ø	6, 8, 10 mm
• Speed revolutions/minute	6000 continuos/10000 temporary*
• Starting torque	≤0,8 Ncm
• Inertia	≤25 g cm <sup>2</sup>
• Max load	80 N axial/100 N radial
• Vibration resistance (10÷2000 Hz)	100 m/sec <sup>2</sup>
• Shock resistace (11 ms)	50 G
• Protection degree	IP65 / optional IP66 with sealing ring*
• Operating temperature	-10 ÷ 70°C
• Stocking temperature	-20 ÷ 80°C

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

### ELECTRICAL & OPERATING SPECIFICATIONS

• Pulse code	Incremental
• Pulses per revolution	1000 to 50000 **
• 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, TTL/HTL line driver signals protected against short circuits
• Supply voltage	5/28 Vdc protection against polarity reversal
• Absorption	30÷65 mA max 30 mA at 25 Vdc – 65 mA at 5 Vdc
• Max frequency	200/400 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

\*\*Encoders with 40000/5000 ppr are supplied with Ø 10 mm shaft only



ELAP VIA VITTORIO VENETO, 4 · I-20094 CORSICO (MI) · TEL. +39.02.4519561  
FAX +39.02.45103406 · E-MAIL INFO@ELAP.IT · SITE WWW.ELAP.IT



REV620



REV520



REV540

## CONNECTIONS

SIGNALS	Push Pull			SIGNALS	Line Driver			
	7-pin Connector		Cable colours		7-pin Connector	Cable colours	10-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	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	Shield	Out 1	C	Brown	G	Brown
Earth				Out 2	E	Yellow	H	Yellow
				Out Z			I	Pink
				Non-connected	G		J	Shield

## ORDERING INFORMATION

REV520	C	1000	5/28	R	6	PP	2
--------	---	------	------	---	---	----	---

**CONNECTION DIAGRAM**  
1 - 2

**OUTPUT SIGNALS**  
PP Push-pull  
LD Line-driver 5/28 or 5Vdc

**SHAFT Ø**  
6 - 8 - 10 mm

**CONNECTIONS POSITIONS**  
A Axial  
R Radial

**SUPPLY VOLTAGE**  
5/28 Vdc

**PPR**  
1000 ÷ 50000  
40000/5000 with Ø 10 mm shaft only

**CONNECTION OUTLET**  
- Connector  
C Cable

**UPGRADES ADMITTED WITHOUT NOTICE**

### TYPE

- REV520 – REV540 Round flange, no zero pulse
- REV521 – REV541 Round flange, zero pulse
- REV620 Square flange
- REV621 Square flange, zero pulse

## REFERENCES

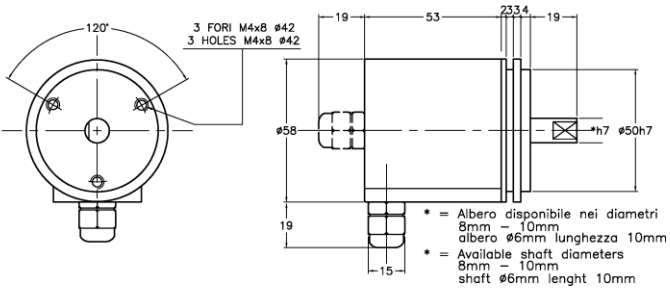
Further information and dimensional drawings at the following link:

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

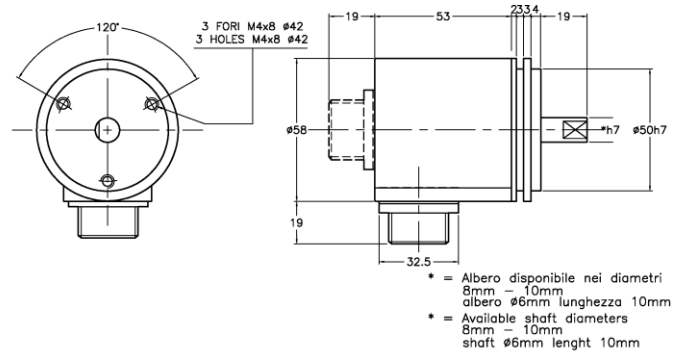


# DIMENSIONS

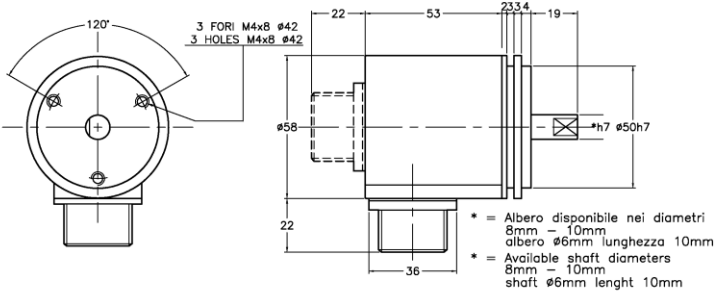
REV520 uscita serracavo  
REV520 cable output



REV520 uscita connettore 7p  
REV520 7pin output connector

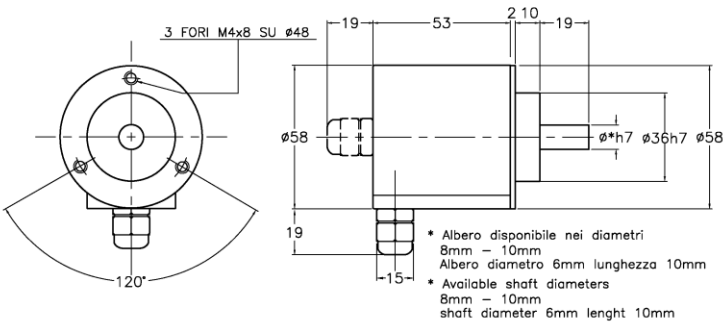


REV520 uscita connettore 10p  
REV520 10pin output connector

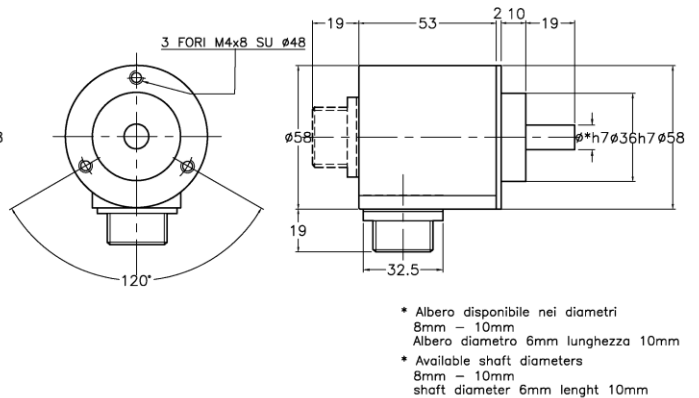


Ref M2015

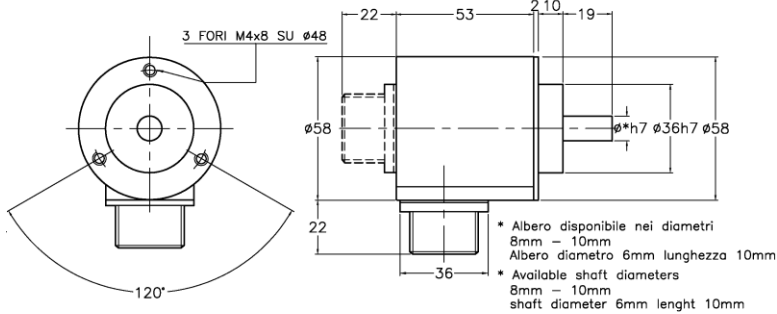
REV540 uscita serracavo  
REV540 cable output



REV540 uscita connettore 7p  
REV540 7pin output connector

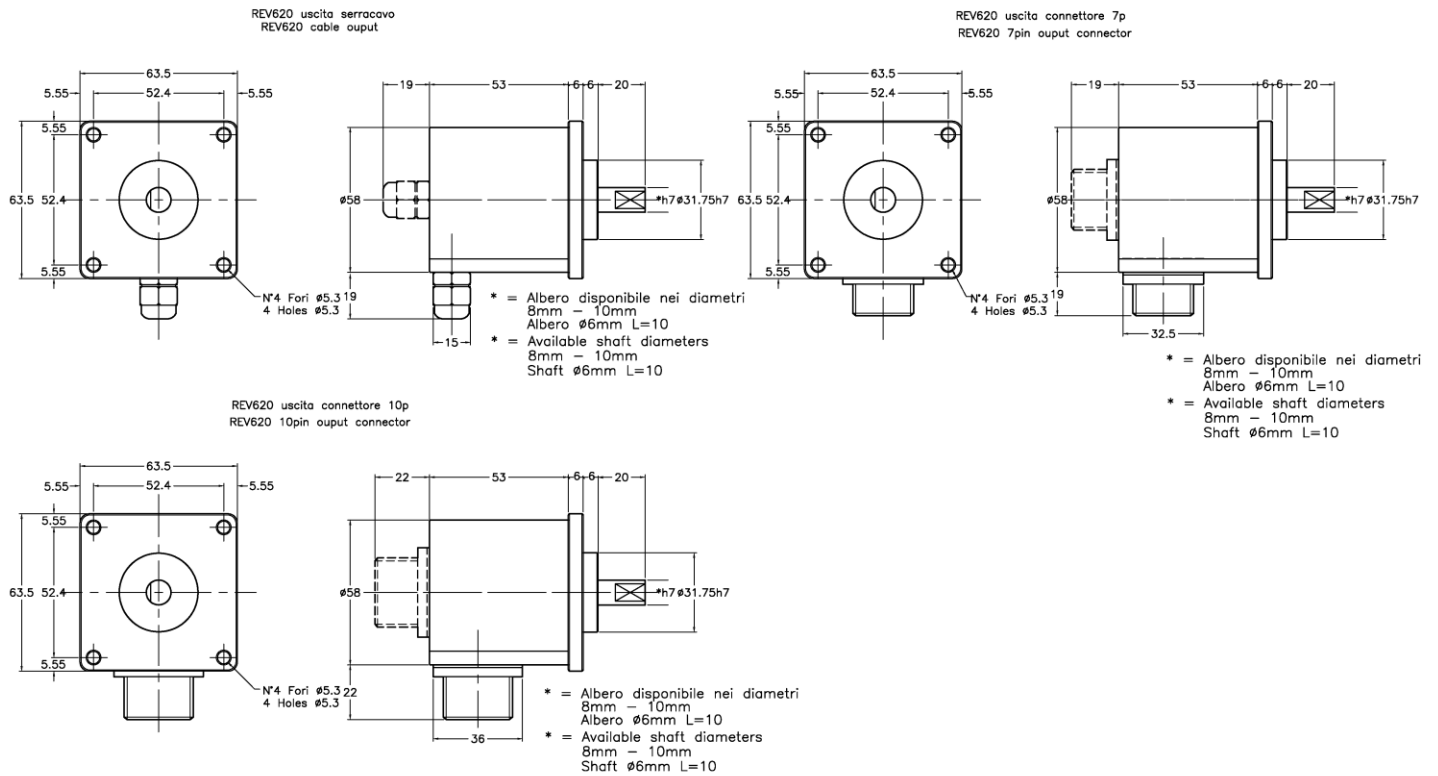


REV540 uscita connettore 10p  
REV540 10pin output connector



Ref M2016

# DIMENSIONS



Ref M2017

## Ø58 mm alternative incremental encoders

REC	RE	REM
<p><b>Ø 58 mm compact size encoder</b> 2÷12500 ppr Round or square flange available UL Listed versions available</p>	<p><b>Ø 58 mm encoder</b> 2÷12500 ppr Round or square flange available</p>	<p><b>Encoder Ø 58 mm magnetico</b> 8÷2048 ppr Flangia tonda o quadra</p>
		
 <p><a href="#">Encoder REC</a></p>	 <p><a href="#">Encoder RE square fl.</a></p>  <p><a href="#">Encoder RE round fl.</a></p>	 <p><a href="#">Encoder REM</a></p>