



# elap EP / REP

## PROGRAMMABLE MAGNETIC INCREMENTAL ENCODERS

- Magnetic incremental encoders
- Programmable ppr number
- Zero pulse
- Several configurations available
- Accurate, strong and reliable

.Incremental encoders **EP/REP** ppr no. ranges from 8 to 2048. The ppr no. is easily set by the user directly via PC; the programming kit supplied with the encoder includes the USB cable ended with the encoder connector, and the CD with the programming software.

**EP/REP** operate according to the magnetic principle, and offer excellent performances in terms of *resistance to vibrations and shocks, acceleration, speed and protection*.

The different mechanical versions can meet every type of application requirement; each mechanical type is available with ABS plastic case – series **EP** with *push-pull output* – or metal case – series **REP** with *line driver output*.

### • Type EP:

ABS plastic case  
Push-pull electronic output  
7-pin MS connector axial or radial outlet

### • Type REP

Aluminium case  
5 Vdc or 5/28 Vdc line-driver output  
12-pin Connei connector axial or radial outlet

### MECHANICAL VERSIONS

| Series EP/REP521:  | Series EP/REP511:  | Series EP/REP621:   |
|--|--|---|
| Round flanged, Ø 58 mm, servo coupling<br>Ø 50 mm centering mask<br>Shaft Ø: 6, 8, 9.52 or 10 mm                             | Round flanged, Ø 58 mm servo coupling<br>Ø 31.75 mm centering mask<br>Shaft Ø: 6, 8, 9.52 or 10 mm                 | Square flanged 63.5 x 63.5 mm<br>Centering mask Ø 31.75 mm<br>Shaft Ø 6, 8, 9.52 or 10 mm                         |
| Series EP/REP541:  | Series EP/REP651:  | Series EP/REP411:   |
| Round flange Ø 58 mm, servo coupl.<br>Centering mask Ø 36 mm<br>3 M4 holes at 120° on Ø 48 mm<br>Shaft Ø 6, 8, 9.52 or 10 mm | Square flange 63.5x63.5 mm<br>Centering mask Ø 50 mm<br>Shaft Ø 6, 8, 9.52 or 10 mm                                | Round flanged, Ø 63 mm<br>Hollow shaft for direct mounting to a motor shaft, hole diameter 8, 10, 12, 14 or 15 mm |
| Series EP/REP401:  | Series EP/REP471   |   |
| Round flange, Ø 58 mm, fixing holes on Ø 30 mm<br>Joint for direct mounting to a motor shaft diameter 6, 8 or 10 mm          | Round flange, Ø.72 mm, fixing holes on Ø 63.5<br>Joint for direct mounting to a motor shaft diameter 6, 8 or 10 mm |   |

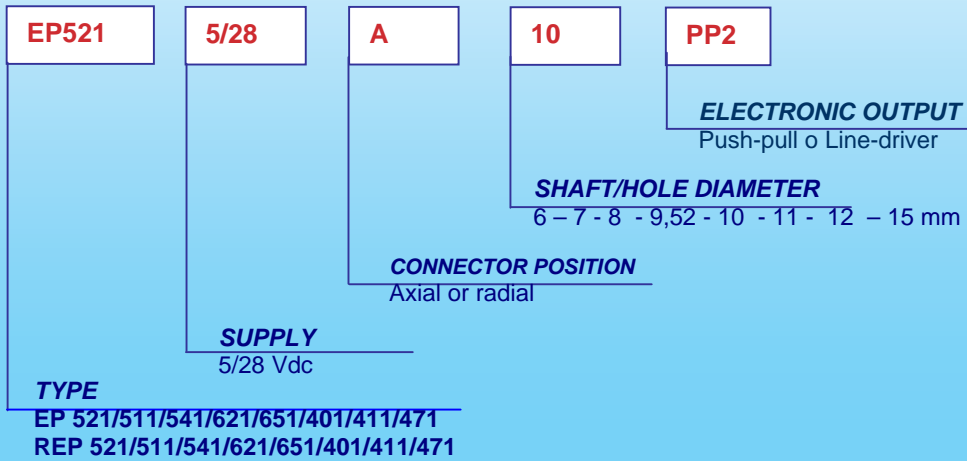
### MECHANICAL & ENVIRONMENTAL SPECIFICATIONS

|  |  |
|--|--|
| • <i>Materials: case shaft</i>             | <b>EP:</b> ABS / <b>REP</b> aluminium<br>Stainless steel AISI 303  |
| • <i>Revolutions/minute</i>                | 6000* continuous 10000 temporary<br>*max operating speed with IP65 sealing ring applied on the shaft: 3000 |
| • <i>Starting torque</i>                   | ≤0,8 Ncm   |
| • <i>Inertia</i>                           | ≤25 g cm <sup>2</sup>  |
| • <i>Max. load</i>                         | 80N axial/100N radial  |
| • <i>Vibration resistance (10÷2000 Hz)</i> | 100 m/sec <sup>2</sup>   |
| • <i>Shock resistance (11 ms)</i>          | 50 G   |
| • <i>Protection degree</i>                 | IP64 (optional IP65 with sealing ring)   |
| • <i>Operating temperature</i>             | 0 ÷ 70°C   |
| • <i>Stocking temperature</i>              | -20 ÷ 80°C   |

## ELECTRICAL & OPERATING SPECIFICATIONS

|                      |  |
|----------------------|--|
| • Pulse code         | Incremental  |
| • Pulses/revolution  | 8, 10, 16, 20, 25, 32, 40, 50, 64, 80, 100, 125, 128, 200, 250, 256, 400, 500, 512, 1024, 2048                           |
| • Zero pulse         | 1 pulse each revolution  |
| • Output signals     | Two square waves 90° ±15° out of phase - Zero pulse width: 90°±15°   |
| • Electronic output  | Push-pull or line driver - Signals protected against short circuits  |
| • Supply voltage     | 5/28 Vdc - Protection against polarity reversal  |
| • Power consumption  | 1.2 W  |
| • Max. frequency     | 200 KHz  |
| • Connection outlets | MS 7-pin axial or radial connector (push-pull output)<br>or Connei 12-pin axial or radial connector (line driver output) |

The programming kit includes: 7 or 12-pin connector + USB cable for encoder to PC connection – CD containing the programming tool -.Minimum system requirements: Windows2000/XP/VISTA



## DIMENSIONS

