

### Main characteristics

Encoder series to be mounted directly on motors. Our integrated elastic coupling allows radial and axial slack compensation

- Resolution up to 10.000 ppr with zero for EL series, up to 1024 ppr for EH series.
- Different output types available.
- Up to 28 Vdc input voltage for EL series and up to 24 Vdc for EHseries.
- Up to 300 kHz frequency response for EL series and up to 100 kHz for EH series
- Output cable with connector
- Several flanges available
- Up to 6.000 rpm speed rotation



### Ordering code

EL 63 G 1000 Z 5/28 N 8 X 3 M R . XXX

Incremental encoder series **EL**  
Incremental encoder series **EH**

body dimension **58**  
body dimension **63**

mod.EH-EL58F / EH-EL63F **F**  
mod.EH-EL58G / EH-EL63G **G**  
mod.EH-EL63P **P**  
mod.EH-EL63PB **PB**  
mod.EH-EL63GB **GB**  
mod.EH-EL63FB **FB**  
mod.EH-EL63PC **PC**  
mod.EH-EL63PBF **PBF**  
mod.EH-EL63PCF **PCF**

PPR: series EH/EL58F/G-EL63F/G from **1** to **10000**  
PPR: series EH63P/PB/GB/FB/PC/PFB/PCF from **1** to **2048**  
PPR: series EH58F/G-EH63F/G from **40** to **1024**  
*Please, directly contact our offices for pulses availability*

#### Zero pulse

without zero pulse **S**  
with zero pulse **Z**

#### Input voltage

input voltage EL **5 ÷ 28**  
input voltage EH **5 / 8 ÷ 24**

*LINE DRIVER available only with input voltage 5 Vdc 8 - 24 Vdc*

Full stop to separate special versions

Special version code numbered from 001 to 999

**R** radial  
**A** axial (only for EH-EL58-63F/G)

**P** cable output (standard length 0.3 m)

**M** connector MS3106E 16S-1S or 18-1S for EH-EL58-63F/G

**J** connector JMSP 1607 F or 1610 for EH-EL58-63F/G

#### R.P.M.

**3** 3000

#### Enclosure rating

**X** standard IP54

**S** IP66 (only for EH-EL58-63F/G)

#### Bore diameter

**8** ø 8 mm  
**9** ø 9,52 mm (3/8")  
**10** ø 10 mm  
**12** ø 12 mm  
**14** ø 14 mm  
**15** ø 15 mm

#### Output types

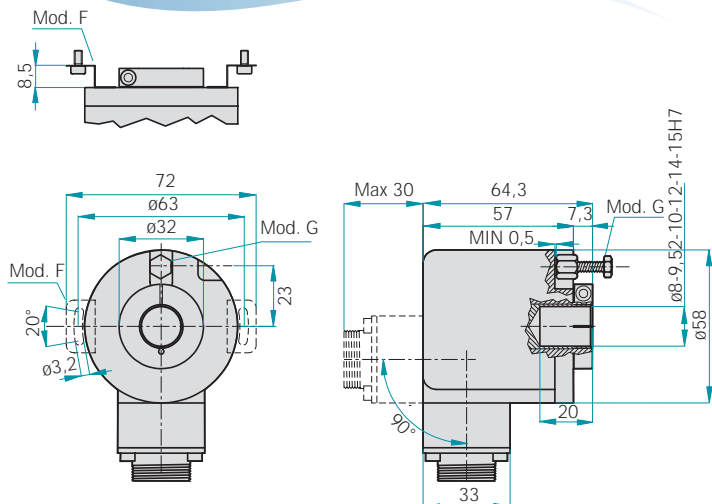
**N** NPN  
**C** NPN OPEN COLLECTOR  
**P** PUSH PULL  
**L** LINE DRIVER

*For optionals about output types please refer to incremental outputs section*

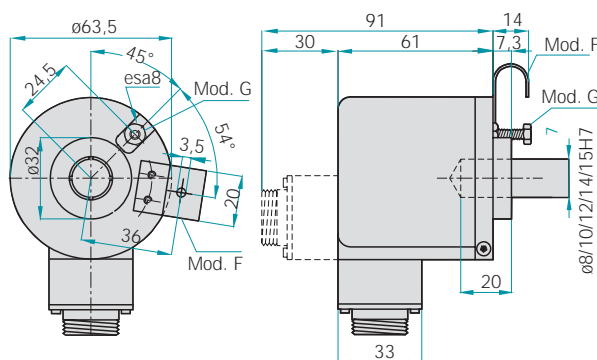
# EH - EL 58 F / G    EH - EL 63 F / G / FB / GB

## BLIND HOLLOW SHAFT ENCODER

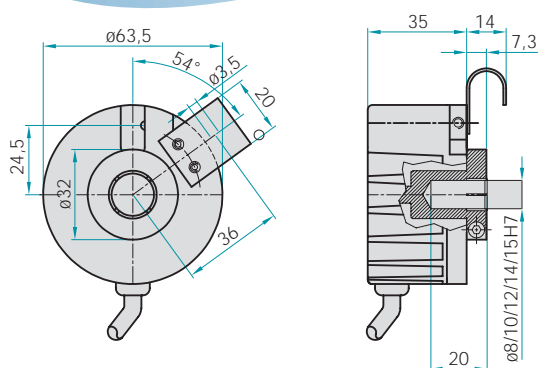
### EH - EL 58 F / G



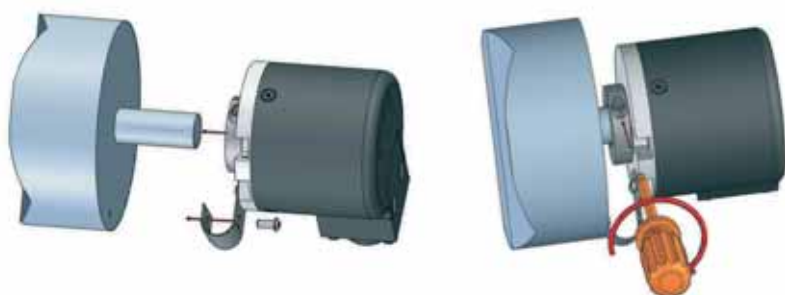
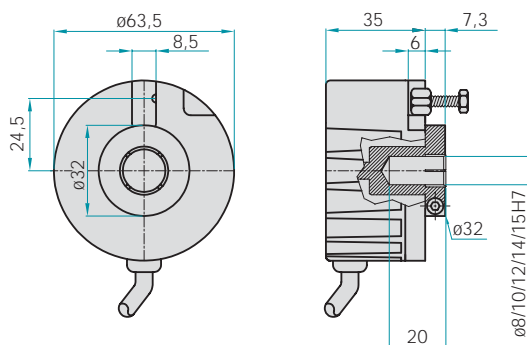
### EH - EL 63 F / G



### EL 63 FB



### EL 63 GB



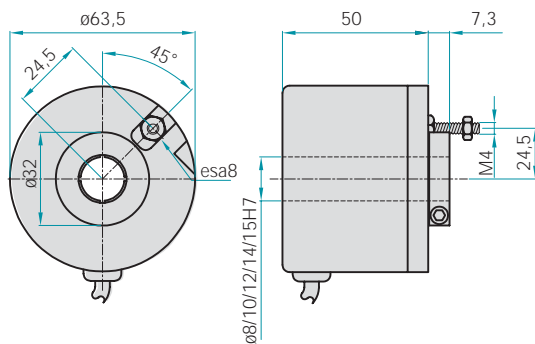
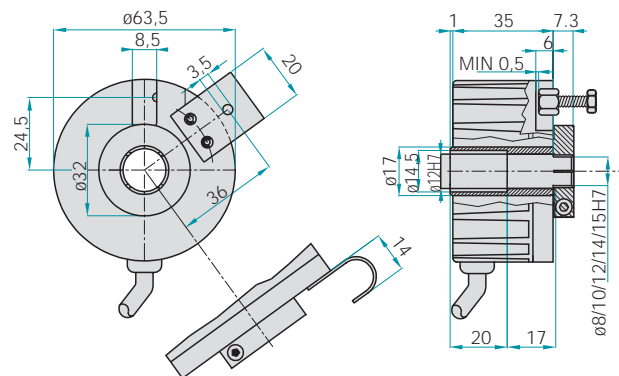
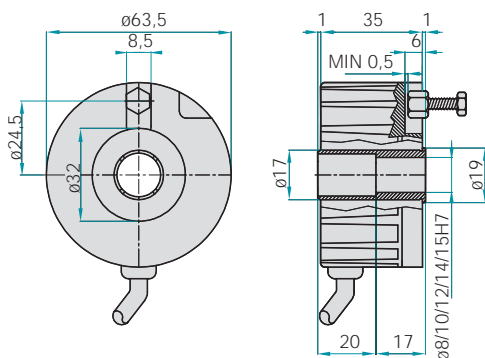
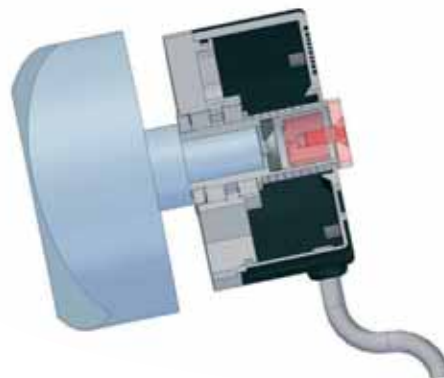
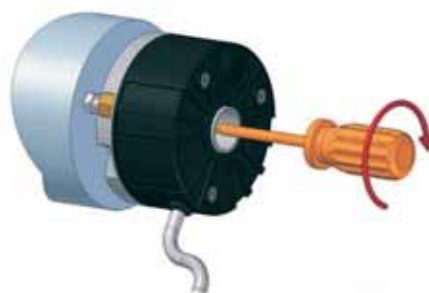
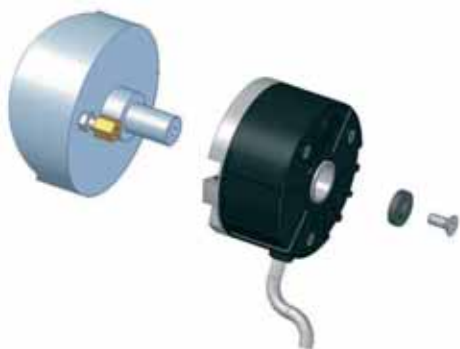
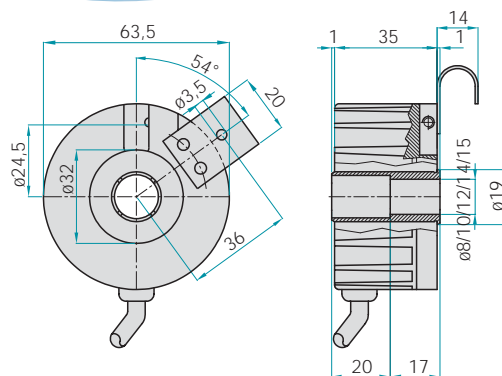
#### HOW TO MOUNT THE EH-EL63F

- 1) Couple the encoder shaft with the motor shaft
- 2) Fix the spring at the motor flanges without screwing it
- 3) Fix the encoder shaft by the metal gear.
- 4) Block the spring

#### HOW TO MOUNT THE EH-EL63G

- 1) Mount the antirotation pin on the motor flange.
- 2) Couple the encoder shaft with the motor shaft, ensuring that the pin is inserted on the cave on the encoder front part (maintaining a minimum distance of 0,5 mm)
- 3) Fix the encoder shaft by the metal ring



**EL 63 P**

**EL 63 PB / PBF**

**EL 63 PC**

**EL 63 PCF**

**HOW TO MOUNT THE EH-EL63P**

- 1) Mount the antirotation pin on the motor flange.
- 2) Couple the encoder shaft with the motor shaft, ensuring that the pin is inserted on the cave on the encoder front part (maintaining a minimum distance of 0,5 mm)
- 3) Fix encoder packed shaft with the motor shaft. Insert the washer at the extremity of the encoder shaft.

## Electrical specifications series EL

|                                   |   |
|-----------------------------------|---|
| Resolution                        | from 1 to 10000 PPR for EL58-63F/G<br>from 1 to 2048 PPR for<br>EL63P/PB/GB/FB/PC/PBF/PCF |
| Input voltage                     | 5 ÷ 28 Vdc<br>LINE DRIVER only available with input voltage 5/8 ÷ 24 Vdc                  |
| Input current with no output load | 100 mA Max  |
| Source and sink current           | 50 mA for channel<br>20 mA for channel with LINE DRIVER                                   |
| Output types                      | NPN / NPN OPEN COLLECTOR /<br>PUSH PULL / LINE DRIVER                                     |
| Output frequency                  | 300 KHz Max   |
| Frequency response                | $F = \frac{RPM \times Resolution}{60}$  |

## Electrical specifications series EH

|                                   |  |
|-----------------------------------|--|
| Resolution                        | from 40 to 1024 PPR<br>for EH58-63F/G  |
| Input voltage                     | 5 Vdc / 8 ÷ 24 Vdc<br>LINE DRIVER only available with input voltage 5/8 ÷ 24 Vdc |
| Input current with no output load | 100 mA Max   |
| Source and sink current           | 50 mA for channel<br>20 mA for channel with LINE DRIVER                          |
| Output types                      | NPN / NPN OPEN COLLECTOR /<br>PUSH PULL / LINE DRIVER                            |
| Output frequency                  | 100 KHz Max  |
| Frequency response                | $F = \frac{RPM \times Resolution}{60}$   |

## Mechanical specifications

|                       |  |
|-----------------------|--|
| Bore diameter         | ø6-ø9,52 (only mod.58)-ø10-ø12-<br>ø14-ø15 mm H7                           |
| Enclosure rating      | IP54 standard<br>IP66 optional (only EH-EL58-63F/G)                        |
| Shaft speed           | 3000 RPM   |
| Shock                 | 50 G for 11 msec (with plastic disc)<br>20 G for 11 msec (with glass disc) |
| Vibrations            | 10G 10 ÷ 2000 Hz   |
| Bearings life         | 10 <sup>9</sup> revolutions  |
| Bearings              | n° 2 ball bearings   |
| Shaft material        | Stainless steel AISI303  |
| Body material         | Aluminium UNI 5076   |
| Housing material      | PA 66 reinforced with fiber glass  |
| Operating temperature | 0° ÷ +60°C   |
| Storage temperature   | -25° ÷ +70°C   |
| Weight                | 350 g  |