

### Main characteristics

Standard encoder series for industrial environments with high mechanical resistance requirements. Those encoders are designed to face high radial and axial shaft load and they can be mounted with flanges or servo-fasteners. Specifically designed for direct mounting on motors or tachometer generators. Our integrated elastic couplings allows radial and axial slack compensation

- Up to 10.000 ppr with zero for EL series,  
Up to 1024 ppr for EH series.
- Several output types available.
- Up to 28 Vdc input voltage for EL series and up to 24 Vdc for EH series.
- 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
- Up to IP66 sealing



### Ordering code

Full stop to separate special versions.

EL 72 1 A 1000 Z 5/28 N 10 X 6 M R . XXX

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

Special version code numbered from 001 to 999

body dimension **72**

- ø 63,5 mm **1**
- ø 65 mm **2**
- ø 57 mm **3**
- ø 60 mm **4**

- mod.EH-EL72B **A**
- mod.EH-EL72B **B**

- R** radial
- A** axial

- P** cable output (standard length 1,5 m)
- M** connector MS3106E 16S-1S or 18-1S
- J** connector JMSP 1607 F or 1610 F

#### R.P.M.

- 3** 3000
  - 6** 6000
- 3000 RPM MAX with "S" enclosure rating

#### Enclosure rating

- X** standard IP54
- S** optional IP66

#### Bore diameter

- 6** ø 6 H7 mm
- 8** ø 8 H7 mm
- 10** ø 10 H7 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

#### Resolutions

PPR: series EL from **1** to **10000**  
PPR: series EH from **40** to **1024**

Please, directly contact our offices for pulses availability

#### Zero pulse

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

#### Input voltage

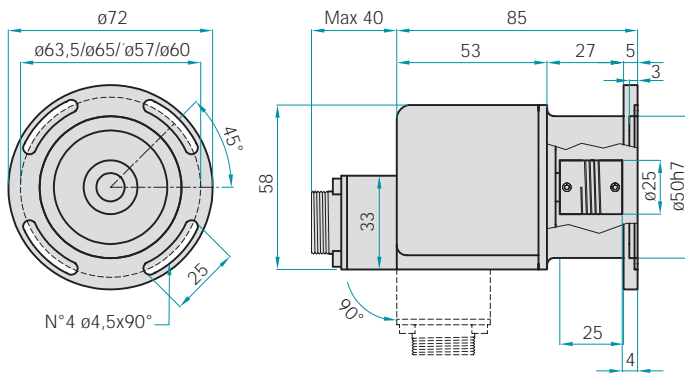
input voltage EL **5 ÷ 28**  
input voltage EH **5/8 ÷ 24**

LINE DRIVER available only with input voltage 5 Vdc 8 ÷ 24 Vdc

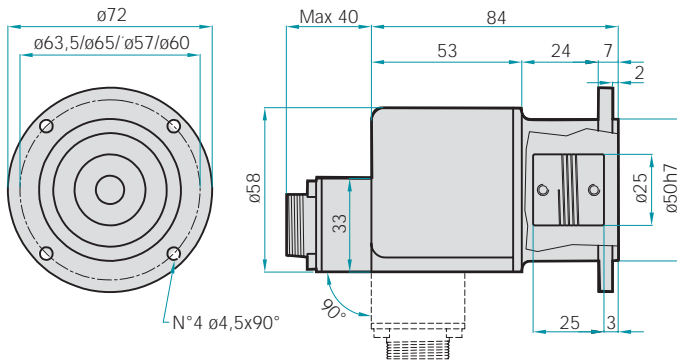
Hollow shaft incremental encoder

EH - EL 72 A / B

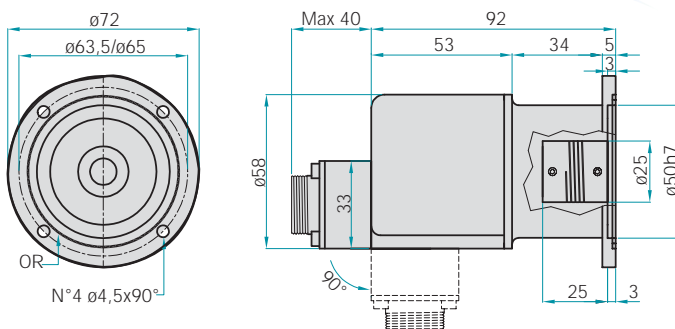
## EH - EL 72 mod. A



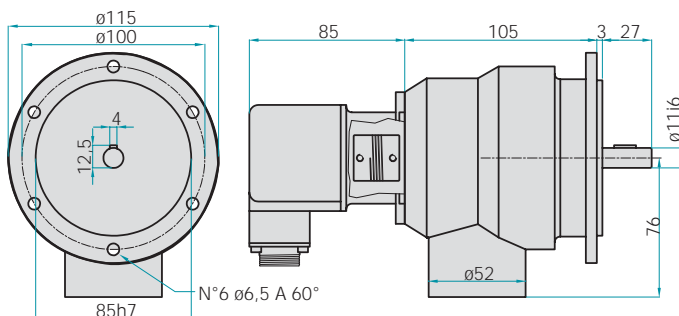
## EH - EL 72 mod. B



## EH - EL 72 mod. A version IP66



Application on tachimetric dynamo  
**AVAILABLE DYNAMO A) 20V-1000 turn/min**  
**B) 60V-1000 turn/min**



## EL series electrical specifications

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

## EH series electrical specifications

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

## Mechanical specifications

|                              |  |
|------------------------------|--|
| <b>Bore diameter</b>         | $\varnothing 6 / 8 / 10 \text{ mm h7}$                                     |
| <b>Enclosure rating</b>      | IP54 standard<br>IP66  |
| <b>Shaft speed</b>           | 3000 RPM<br>6000 RPM<br>3000 turn MAX with "S" enclosure rating            |
| <b>Shock</b>                 | 50 G for 11 msec (with plastic disc)<br>20 G for 11 msec (with glass disc) |
| <b>Vibrations</b>            | 10G 10 ÷ 2000 Hz   |
| <b>Bearings life</b>         | 10 <sup>9</sup> revolutions  |
| <b>Bearings</b>              | n° 2 ball bearings   |
| <b>Shaft material</b>        | Stainless steel AISI303  |
| <b>Body material</b>         | Aluminium - UNI5076  |
| <b>Housing material</b>      | PA 66 reinforced with fiber glass  |
| <b>Operating temperature</b> | 0° ÷ +60°C   |
| <b>Storage temperature</b>   | -25° ÷ +70°C   |
| <b>Weight</b>                | 400 g  |
| <b>Accessories</b>           | precision elastic couplings<br>G25A6/10<br>G25A8/10<br>G25A/10             |