



# EH-EL72A / B INCREMENTAL ENCODERS

## Incremental encoders

Standard series for industrial environments with excellent mechanical resistance; possibility of high radial and axial load on the shaft. They can be assembled with flanges or servo fasteners. Studied for the direct assembly on motors or tachimeter generators where the incorporated elastic joint allows the compensation of radial and axial slack on the shaft of the motor.

- Resolutions up to 10000 imp/turn with zero for the EL series and up to 1024 imp/turn for the EH series
- Different electronic configurations available with power supply up to 28 Vdc for the EL series and up to 24 Vdc for the EH series
- Output : cable and connector
- Different flanges available
- Max output frequency up to 300 KHz for the EL series and up to 100KHz for the EH series
- Speed rotation of up to 6000 rpm
- Protection up to IP67



## Ordering codes

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

In case of particular Customer variant separate with a full stop

**EL** = incremental encoder EL series  
**EH** = incremental encoder EH series

**72** = body dimension

**1** =  $\varnothing$  63.5 mm  
**2** =  $\varnothing$  65 mm  
**3** =  $\varnothing$  57 mm  
**4** =  $\varnothing$  60 mm  
**Fixing holes diameter**

**A** = mod.EH-EL72A  
**B** = mod.EH-EL72B  
**Type of flanges**

da **1** a **10000** imp./turns E Lserie  
da **40** a **1024** imp./turn EH series  
**Resolutions**  
N.B.: For impulse availability contact directly our offices

**S** = without zero impulse  
**Z** = with zero impulse  
**Zero impulse**

**5 ÷ 28** = EL series power supply  
**5 / 8 ÷ 24** = EH series power supply  
**Encoder power supply (Vdc)**  
N.B.: LINE DRIVER available only with 5 Vdc or 8 ÷ 24 Vdc power supply

**XXX** = Particular Customer variants indicated by a progressive number from 001 to 999

**R** = radial  
**A** = axial

**P** = standard output cable 1.5 m  
**M** = connector MS3106E 16S-1S or 18-1S  
**J** = connector JMSP 1607 F or 1610 F

**3** = 3000 with IP66 / IP67  
**6** = 6000  
**R.P.M.**

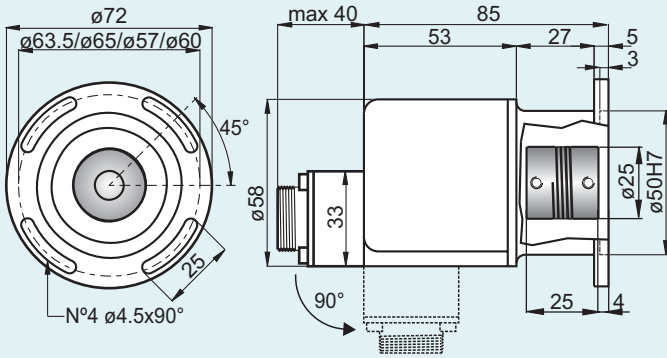
**X** = standard IP64  
**S** = optional IP66 IP67  
**Protection**

**6** =  $\varnothing$  6 mm  
**8** =  $\varnothing$  8 mm  
**10** =  $\varnothing$  10 mm  
**Shaft diameter**

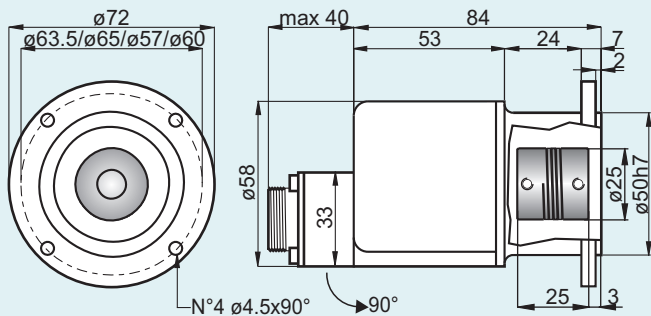
**N** = NPN  
**C** = NPN OPEN COLLECTOR  
**P** = PUSH PULL  
**L** = LINE DRIVER  
**Electronic output configuration**

N.B.: For the optionals on output configurations see the output incremental connections card

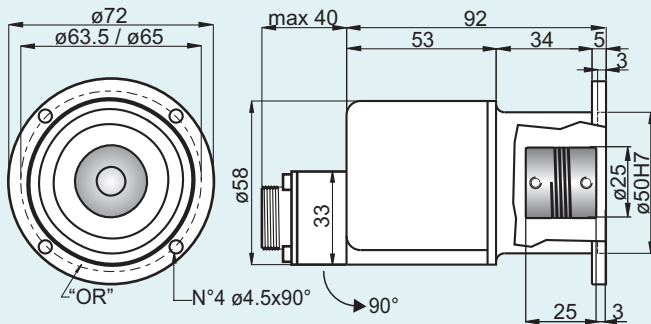
### EH-EL72 mod. A



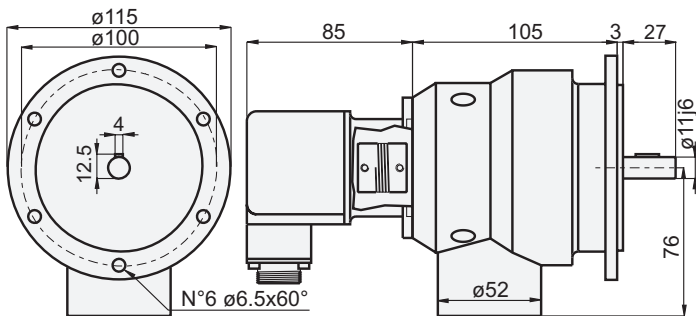
### EH-EL72 mod. B



### EH-EL72 mod. A IP66 / 67 version



Application on tachimeter generator  
 AVAILABLE TACHIMETER A) 20V-1000 turn/min  
 B) 60V-1000 turn/min



### Electronic Characteristics EL Series

<b>Resolution</b>	From 1 to 10000 impulses / turn
<b>Power supply</b>	5 + 28 Vdc N.B.: LINE DRIVER only with 5 / 8+24 Vdc power supply
<b>Current consumption without load</b>	80 mA
<b>Max output current</b>	50 mA per channel 20 mA per channel with LINE DRIVER
<b>Electronic output configuration</b>	NPN / NPN OPEN COLLECTOR / PUSH PULL / LINE DRIVER
<b>Max output frequency</b>	Max 300 KHz $F = \frac{\text{RPM} \times \text{Resolutions}}{60}$

### Electronic Characteristics EH Series

<b>Resolution</b>	From 40 to 1024 impulses / turn
<b>Power supply</b>	5 Vdc / 8 + 24 Vdc N.B.: LINE DRIVER only with 5 / 8+24 Vdc power supply
<b>Current consumption without load</b>	50 mA bidirectional 100 mA bidirectional with zero
<b>Max commutable current</b>	50 mA per channel 20 mA per channel with LINE DRIVER
<b>Electronic output configuration</b>	NPN / NPN OPEN COLLECTOR / PUSH PULL / LINE DRIVER
<b>Max output frequency</b>	Max 100 KHz $F = \frac{\text{RPM} \times \text{Resolutions}}{60}$

### Mechanical Characteristics

<b>Shaft diameter (mm)</b>	ø6 / 8 / 10 h7
<b>Protection</b>	IP64 standard IP66 / IP67 optional
<b>R.P.M. Max</b>	6000 continuous 3000 with tin axis IP66 / IP67
<b>Shock</b>	50 G per 11 msec (with flexible disc) 20 G per 11 msec (with glass disc)
<b>Vibrations</b>	10G 10 + 2000 Hz
<b>Bearings life</b>	<sup>9</sup> 10 revolutions
<b>Bearings</b>	n°2 ball bearings
<b>Shaft material</b>	Stainless steel AISI303
<b>Body material</b>	Aluminium - UNI5076
<b>Cover material</b>	Special plastic reinforced with glass fibre
<b>Operating Temperature</b>	0° + +60°C
<b>Storage temperature</b>	-25° + +70°C
<b>Weight</b>	400 g
<b>Accessories</b>	Precision elastic joints G25A6/10 G25A8/10 G25A10

