

### Main characteristics

Ø120 encoder series with through hollow shaft used on motors.

- Up to 60mm bore diameter
- Easy and safe fixing
- Rugged mechanics
- Up to 2.048 ppr with Zero
- Several output types available.
- Up to 28 Vdc input voltage.
- Up to 100 kHz frequency response
- Up to 3.000 rpm speed rotation
- Up to IP54 sealing



### Ordering code

Full stop to separate special versions.

EL 120 P 500 Z 5 N 50 X 3 P R . XXX

Incremental encoder series **EL**

body dimension **120**

hollow shaft **P**

#### Resolutions

PPR: **1 - 2048**

*Please, directly contact our offices for pulses availability*

#### Zero pulse

without zero pulse **S**

with zero pulse **Z**

#### Input voltage

input voltage **5 ÷ 28**

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

Special version code numbered from 001 to 999

**R** radial

**P** cable output (standard length 0,5 m)

#### R.P.M.

**3** 3000

#### Enclosure rating

**X** standard IP54

#### Bore diameter

**40** ø 40 mm

**50** ø 50 mm

**60** ø 60 mm

#### Output types

**N** NPN

**C** NPN OPEN COLLECTOR

**P** PUSH PULL

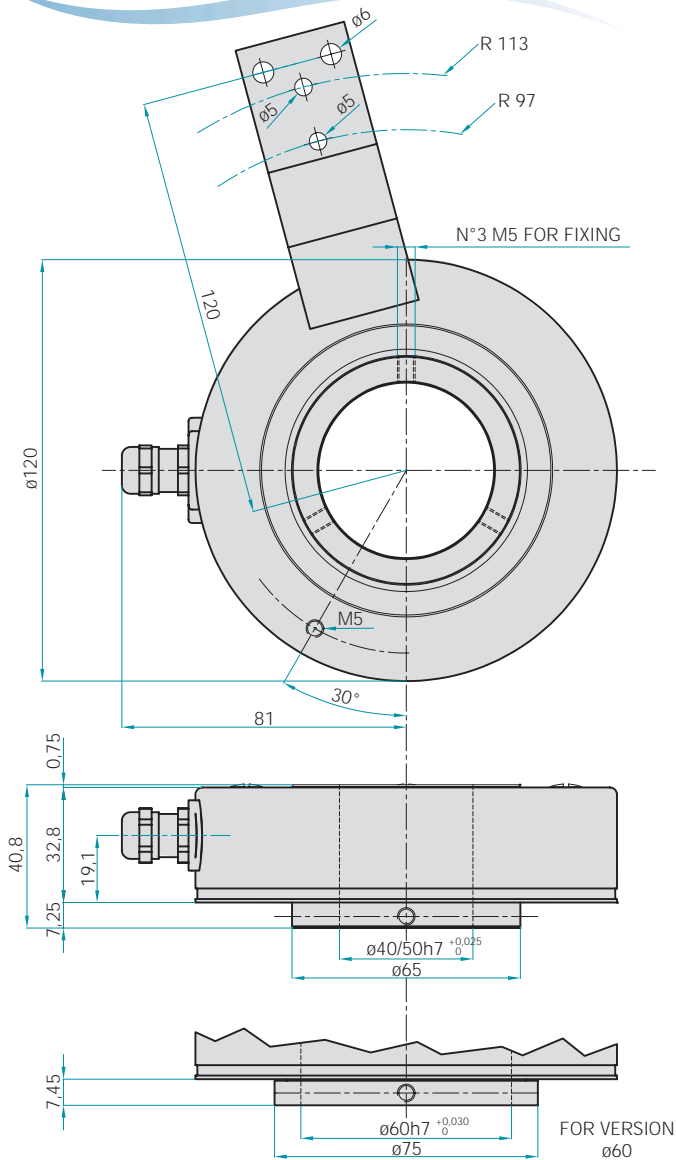
**L** LINE DRIVER

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

Hollow shaft incremental encoder

EL 120 P

# EL 120



## Electrical specifications

<b>Resolution</b>	1 - 2048 PPR
<b>Input voltage</b>	5 Vdc / 8 ÷ 24 Vdc
<b>Input current with no output load</b>	100 mA Max
<b>Source and sink current</b>	50 mA for channel 20 mA for channel with LINE DRIVER
<b>Output types</b>	LINE DRIVER / PUSH PULL
<b>Output frequency</b>	100 KHz Max
<b>Frequency response</b>	$F = \frac{RPM \times Resolution}{60}$

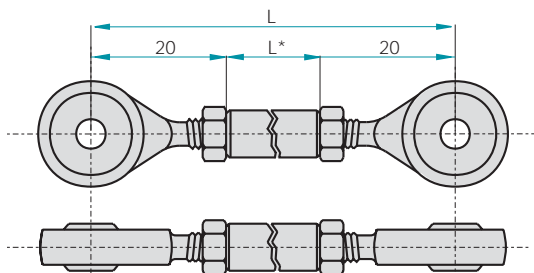
## Mechanical specifications

<b>Bore diameter</b>	$\phi 40 / 50 / 60$ mm H7
<b>Enclosure rating</b>	IP54 standard
<b>Shaft speed</b>	3000 RPM
<b>Bearings</b>	n° 2 ball bearings
<b>Shaft material</b>	Aluminium D11 S UNI9002/5
<b>Housing material</b>	Aluminium
<b>Operating temperature</b>	$0^\circ \div +60^\circ C$
<b>Storage temperature</b>	$-25^\circ \div +70^\circ C$
<b>Weight</b>	750g

### HOW TO MOUNT IT

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

## ACCESSORIES



\* See below for arm length

### Available lengths

<b>L* = 30 mm</b>	Ordering code: SN5A30
<b>L* = 60 mm</b>	Ordering code: SN5A60
<b>L* = 90 mm</b>	Ordering code: SN5A90

