

# EL30E / H / I INCREMENTAL ENCODERS

### Incremental encoders

Series of miniaturized encoders  $\varnothing 30$  for application where the minimum size is required still maintaining excellent performance.

- Resolutions up to 1000 imp/turn with zero
- Different electronic configurations available with power supply up to 24 Vdc
- Max. output frequency up to 100 KHz
- Output cable, eventual connector applied to the end of the cable
- Different flanges available
- Speed rotation up to 3000 rpm
- Protection up to IP54



### Ordering codes

**EL 30 E 50 Z 5 N 4 X 3 P A . XXX**

In case of particular Customer variant separate with a full stop

**EL** = incremental encoder

**30** = body dimension

**E** = mod.EL30E  
**H** = mod.EL30H  
**I** = mod.EL30I

Type of flanges

from **1** to **1000** imp./turn

Resolutions

N.B.: For impulse availability contact directly our offices

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

Zero impulse

**5**  
**8 ÷ 24**

Encoder power supply (Vdc)

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

**A** = axial

**P** = output cable ( standard length 0.5 m )

**3** = 3000 max

R.P.M.

**X** = IP54

Protection

**4** =  $\varnothing 4g6$  EL30E

**6** =  $\varnothing 6g6$  EL30H / 30I

Shaft diameter

**N** = NPN

**C** = NPN OPEN COLLECTOR

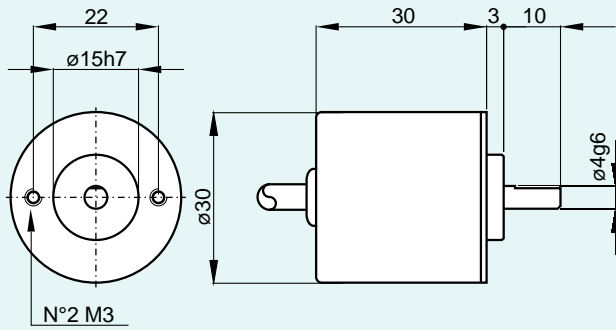
**P** = PUSH PULL

**L** = LINE DRIVER

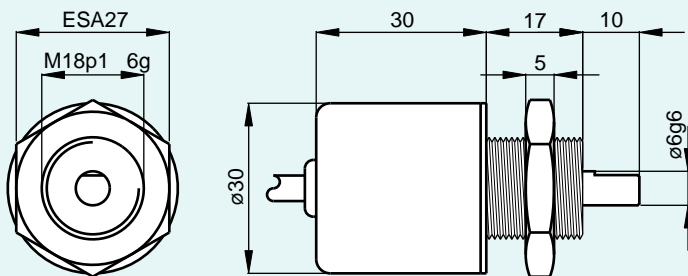
Electronic output configuration

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

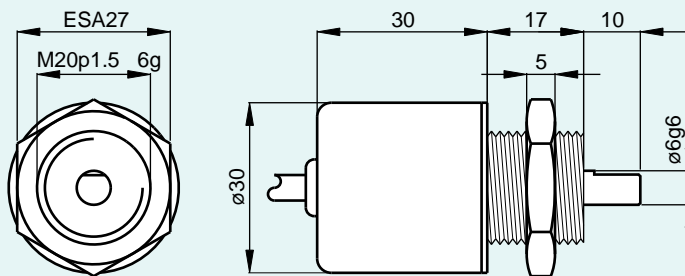
**EL30E**



**EL30H**



**EL30I**



**Electronic Characteristics**

<b>Resolution</b>	From 1 to 1000 impulses / turn
<b>Power supply</b>	5 Vdc / 8 ÷ 24 Vdc
<b>Current consumption without load</b>	MAX 80 mA
<b>Max commutable current</b>	50 mA per channel 20 mA per channel LINE DRIVER
<b>Electronic output configuration</b>	NPN / NPN OPEN COLLECTOR / PUSH PULL / LINE DRIVER
<b>Max output frequency</b>	Max 100 KHz
<b>Frequency calculation</b>	$F = \frac{\text{RPM} \times \text{Resolution}}{60}$

**Mechanical Characteristics**

<b>Shaft diameter (mm)</b>	ø4 g6 EL30E ø6 g6 EL30H / I
<b>Protection</b>	IP54 - Standard
<b>R.P.M. Max</b>	3000 continuous
<b>Max shaft load</b>	5N (0.5 Kp) axial 5N (0.5 Kp) radial
<b>Shock</b>	50 G for 11 msec
<b>Vibrations</b>	10G 10 ÷ 2000 Hz
<b>Bearings life</b>	10 <sup>9</sup> revolutions
<b>Bearings</b>	n°2 bearings
<b>Shaft material</b>	Stainless steel AISI303
<b>Body material</b>	Aluminium D11S - UNI 9002/5
<b>Container 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>	50 g

