



# EH-EL40G / H / I INCREMENTAL ENCODERS

## Incremental encoders

- Series of miniaturized encoders  $\varnothing 42$  for generic applications.
- Resolutions up to 2000 imp./turn with zero for the EL series and up to 400 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
- Max output frequency up to 100 KHz for the EL series and up to 40KHz for the EH series
- 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 40 G 500 Z 5/28 N 6 X 3 P R . XXX**

In case of particular Customer variant separate with a full stop

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

**40** = body dimension

**G** = mod.EH-EL40G  
**H** = mod.EH-EL40H  
**I** = mod.EH-EL40I  
**Type of flanges**

from **1** to **2000** imp./turn EL series  
from **50** to **400** imp./turn EH series  
**Resolutions**  
N.B.: For impulse availability contact directly our offices

**S** = without zero impulse  
**Z** = with zero impulse (only EL series)  
**Zero impulse**

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

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

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

**P** = standard output cable 0.5 m

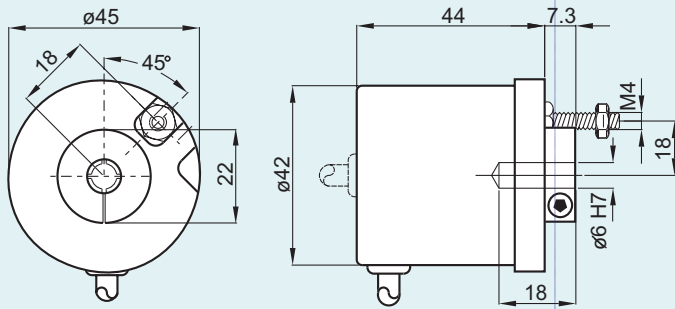
**3** = 3000 **R.P.M.**

**X** = standard IP54 **Protection**

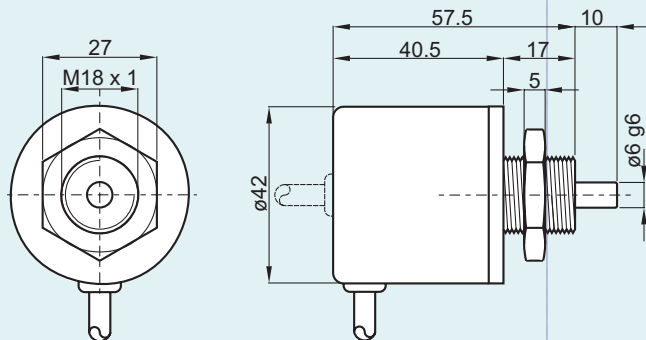
**6** =  $\varnothing$  6 mm EH-EL40G **Hole diameter**  
**6** =  $\varnothing$  6 mm EH-EL40H / I **Shaft diameter**

**N** = NPN  
**C** = NPN OPEN COLLECTOR  
**P** = PUSH PULL  
**L** = LINE DRIVER (only the EL series)  
**Electronic output configuration**  
N.B.: For the optionals on the output configurations see the output incremental connections card

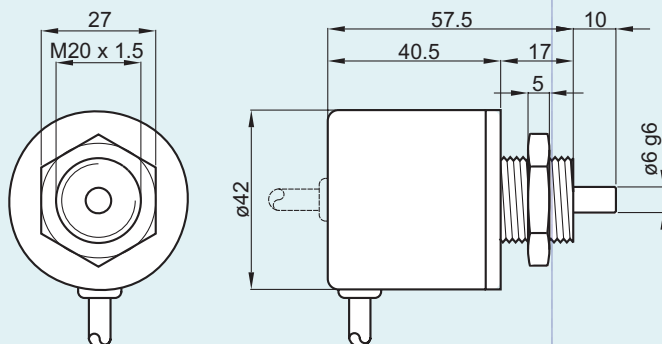
### EH-EL40G



### EH-EL40H



### EH-EL40I



### Electronic Characteristics EL series

<b>Resolutions</b>	from 1 to 2000 impulses / turn
<b>Power Supply</b>	5 + 28 Vdc N.B.: LINE DRIVER only 5 / 8+24 Vdc configuration
<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 100 KHz $F = \frac{\text{RPM} \times \text{Resolution}}{60}$

### Electronic Characteristics EH series

<b>Resolutions</b>	from 50 to 400 impulses / turn
<b>Power Supply</b>	5 Vdc / 8 + 24 Vdc N.B.: LINE DRIVER only with supply of 5 / 8+24 Vdc
<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 40 KHz $F = \frac{\text{RPM} \times \text{Resolution}}{60}$

### Mechanical Characteristics

<b>Shaft Diameter (mm)</b>	ø6 g6	EH-EL40H / I
<b>Hole diameter(mm)</b>	ø6 h7	EH-EL40G
<b>Protection</b>	IP54 - Standard IP65 - Optional (excluding EH-EL40G)	
<b>Max R.P.M.</b>	3000 continuous	
<b>Max shaft load</b>	5N (0.5 Kp) axial 5N (0.5 Kp) radial	
<b>Shock</b>	50 G per 11 msec	
<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 D11S - UNI 9002/5	
<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>	150 g	

