

MAIN FEATURES

Miniaturized $\varnothing$ 30 encoder series for general applications.
Recommended when a minimal size is required even providing excellent performances.

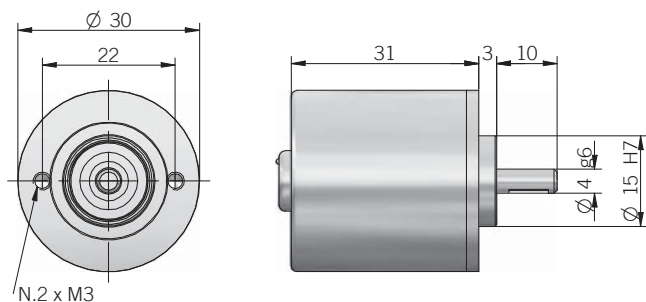
- Up to 2048 ppr with zero signal
- Several output types available
- Up to 28 V DC power supply
- Up to 220 kHz output frequency
- Cable output
- Up to 3000 RPM rotation speed
- Up to IP 54 sealing



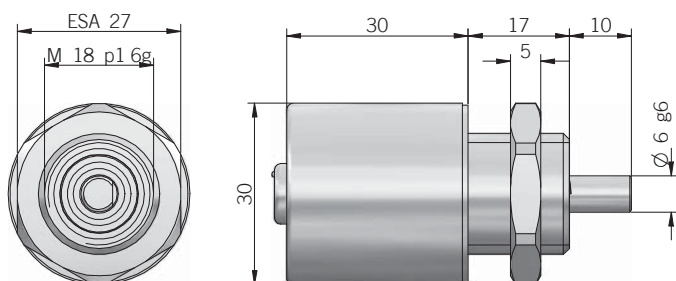
ORDERING CODE

EL 30 E 50 Z 5 L 4 X 3 PA . XXX									
SERIES								VARIANT	
incremental encoder series EL								XXX custom version	
incremental encoder series ER								OUTPUT TYPE	
								PA axial cable output (standard length 0.5 m)	
SIZE								MAX ROTATION SPEED	
mm 30								3 3000 rpm	
TYPE								ENCLOSURE RATING	
clamping flange E								X IP 54	
M18 threaded flange H								SHAFT DIAMETER	
M20 threaded flange I								4 mm (EL 30 E)	
								6 mm (EL 30 E / H / I)	
RESOLUTION								ELECTRONIC INTERFACE	
(see table) ppr from 1 to 2048								N NPN	
<i>N.B.: please directly contact our offices for pulses availability</i>								C NPN open collector	
ZERO PULSE								P push-pull	
without zero pulse S								L line driver	
with zero pulse Z									
POWER SUPPLY									
(available only with L electronic output) 5 V DC 5									
(available only with L or PC electronic output) 8 ... 24 V DC 8/24									
5 ... 28 V DC 5/28									

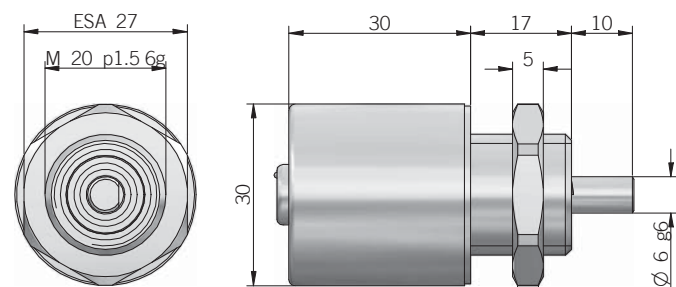
EL - ER 30 E



EL - ER 30 H



EL - ER 30 I



Electrical specifications

Resolution	from 1 to 2048 ppr
Power supply	5 V DC $\pm 10\%$ 5 ... 28 V DC $\pm 5\%$ 8 ... 24 V DC $\pm 5\%$ (reverse polarity protection)
Current consumption without load	100 mA max
Max load current	50 mA for channel 20 mA for channel (line driver)
Output type	NPN NPN open collector push-pull line driver
Max output frequency	100 kHz EL series 220 kHz ER series
Counting direction	A leads B clockwise (shaft view)
Electromagnetic compatibility	IEC 61000-6-2 IEC 61000-6-4

Mechanical specifications

Shaft diameter	$\phi 4$ (EL 30 E) mm $\phi 6$ (EL 30 E / H / I) mm
Enclosure rating	IP 54 (IEC 60529)
Max rotation speed	3000 rpm
Max shaft load	5 N (0.5 kgf) axial 5 N (0.5 kgf) radial
Shock	50 G, 11 ms (IEC 60068-2-27)
Vibration	10 G, 10 ... 2000 Hz (IEC 60068-2-6)
Body material	aluminum EN-AW 2011
Shaft material	1.4305 / AISI 303 stainless steel
Housing material	PA66 glass fiber reinforced
Bearings	2 ball bearings
Bearings life	10^9 revolutions
Operating temperature	-10° ... +60°C EL series -20° ... +70°C ER series
Storage temperature	-25° ... 70°C
Weight	50 g

Connections and standard colours

Function	Push pull / Npn / Npn open collector	Line driver
+V DC	red	red
0 V	black	black
Ch. A	green	green
Ch. A-	/	brown
Ch. B	yellow	yellow
Ch. B-	/	orange
Ch. Z	blue	blue
Ch. Z-	/	white
---	shield	shield

ER series resolutions

100 - 200 - 300 - 360 - 400 - 500 - 512 - 600 - 720 - 1000 - 1024 - 1200 - 1440 - 2000 - 2048

EL series resolutions

1 - 10 - 20 - 25 - 50 - 60 - 64 - 150 - 250 - 256