

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



SOLID SHAFT INCREMENTAL ENCODERS

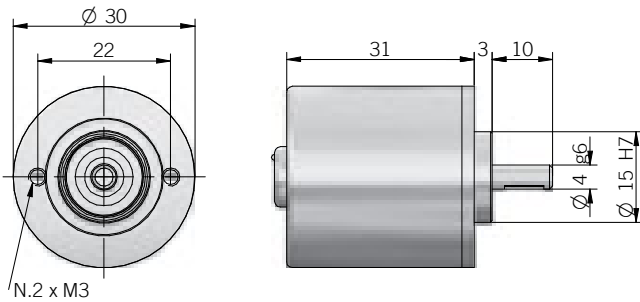
ORDERING CODE

EL 30 E 50 Z 5 L 4 X 3 PA . XXX

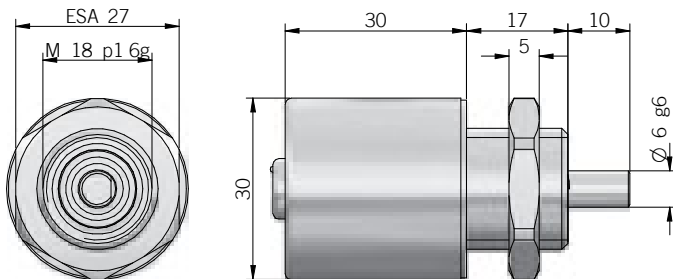
SERIES incremental encoder series EL incremental encoder series ER	SIZE mm 30	TYPE clamping flange E M18 threaded flange H M20 threaded flange I	RESOLUTION (see table) ppr from 1 to 2048 <i>N.B.: please directly contact our offices for pulses availability</i>	ZERO PULSE without zero pulse S with zero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

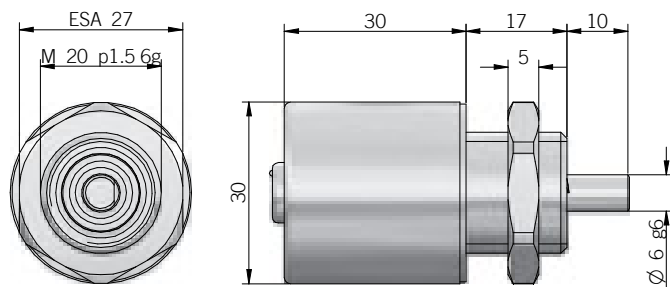
EL - ER 30 E



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	ϕ 4 (EL 30 E) mm ϕ 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
\equiv	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