



EL - ER 40 G

INCREMENTAL ENCODER



MAIN FEATURES

Miniaturized \varnothing 42 encoder series for general applications.

- Up to 2500 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



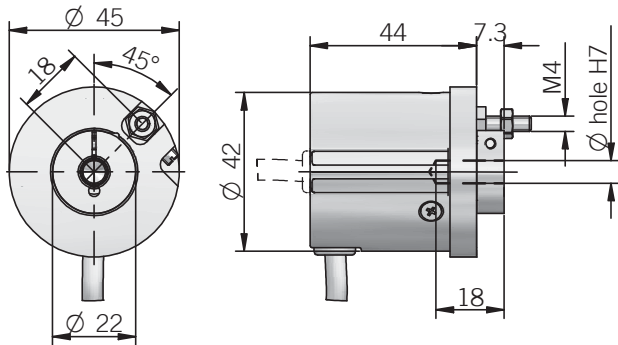
HOLLOW SHAFT INCREMENTAL ENCODERS

ORDERING CODE

SERIES incremental encoder series EL incremental encoder series ER	SIZE mm 40	TYPE blind hollow shaft with anti-rotation pin G	RESOLUTION (see table) ppr from 1 to 2500 <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	ENCLOSURE RATING X IP 54	SHAFT DIAMETER 6 mm	ELECTRONIC INTERFACE N NPN C NPN open collector P push-pull PC protected push-pull (AEIC-7272) L line driver	OUTPUT TYPE P cable output (standard length 0.5 m)	MAX ROTATION SPEED 3 3000 rpm	DIRECTION TYPE A axial R radial	VARIANT XXX custom version
-----------------------------------------------------------------------------------------------	-----------------------------	-------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------	--------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------	------------------------------------------------	------------------------------------------------------------	---------------------------------------------

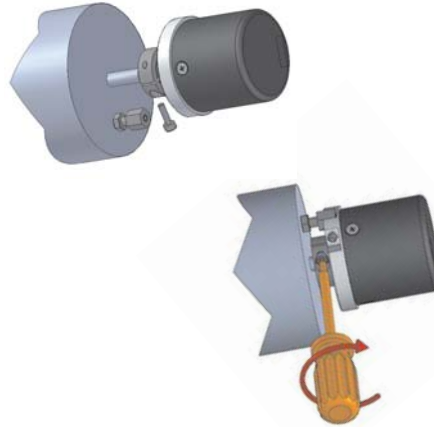
EL - ER 40 G

EL - ER 40 G



Mounting instructions

1. Fix anti-rotation pin on motor flange
2. Couple encoder shaft with motor shaft, making sure pin is inserted in the hole on the front part of the encoder (maintaining a minimum distance of 0.5 mm).
3. Fix encoder shaft on motor shaft



Electrical specifications

Resolution	from 1 to 2500 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	150 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 6 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	EN-AW 2011 aluminum
Shaft material	1.4305 / AISI 303 stainless steel
Housing material	PA 66 glass fiber reinforced
Bearings	2 ball bearings
Bearings life	10 ⁹ revolutions
Operating temperature	-10° ... +60°C series EL -20° ... +70°C series ER
Storage temperature	-25° ... +70°C
Weight	150 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 - 120 - 128 - 150 - 200 - 240 - 250 - 256 - 300 - 360 - 400 - 480 - 500 - 512 - 600 - 625 - 720 - 750 - 800 - 900 - 1000 - 1024 - 1200 - 1250 - 1440 - 1500 - 1600 - 1800 - 2000 - 2048 - 2500

EL series resolutions

1 - 2 - 4 - 5 - 10 - 15 - 16 - 20 - 30 - 32 - 40 - 50 - 70 - 80 - 90 - 160 - 180 - 350 - 450 - 660 - 700