

### MAIN FEATURES

Miniaturized  $\varnothing$  42 encoder series for general applications.

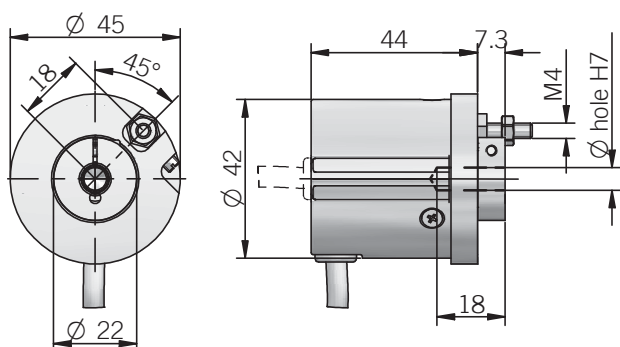
- Up to 2500 ppr with zero signal
- Several output types available
- Up to 28 V DC power supply
- Up to 220 kHz output frequency
- Cable output
- Up to 3000 RPM rotation speed
- Up to IP 54 sealing



### ORDERING CODE

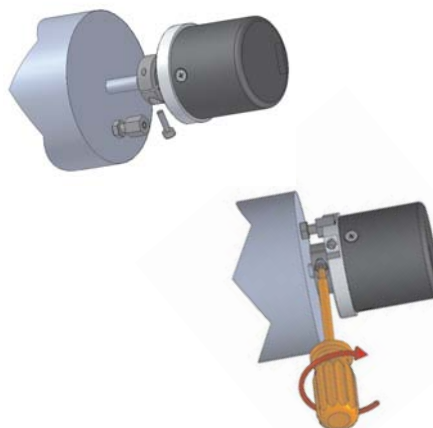
<b>SERIES</b> incremental encoder series <b>EL</b> incremental encoder series <b>ER</b>	<b>SIZE</b> mm <b>40</b>	<b>TYPE</b> blind hollow shaft with anti-rotation pin <b>G</b>	<b>RESOLUTION</b> (see table) ppr from <b>1</b> to <b>2500</b> <i>N.B.: please directly contact our offices for pulses availability</i>	<b>ZERO PULSE</b> without zero pulse <b>S</b> with zero pulse <b>Z</b>	<b>POWER SUPPLY</b> (available only with L electronic output) 5 V DC <b>5</b> (available only with L or PC electronic output) 8 ... 24 V DC <b>8/24</b> 5 ... 28 V DC <b>5/28</b>	<b>ENCLOSURE RATING</b> <b>X</b> IP 54	<b>SHAFT DIAMETER</b> <b>6</b> mm	<b>ELECTRONIC INTERFACE</b> <b>N</b> NPN <b>C</b> NPN open collector <b>P</b> push-pull <b>PC</b> protected push-pull (AEIC-7272) <b>L</b> line driver	<b>MAX ROTATION SPEED</b> <b>3</b> 3000 rpm	<b>OUTPUT TYPE</b> <b>P</b> cable output (standard length 0.5 m)	<b>DIRECTION TYPE</b> <b>A</b> axial <b>R</b> radial	<b>VARIANT</b> <b>XXX</b> custom version
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## 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

<b>Resolution</b>	from 1 to 2500 ppr
<b>Power supply</b>	5 V DC $\pm$ 10% 5 ... 28 V DC $\pm$ 5% 8 ... 24 V DC $\pm$ 5% (reverse polarity protection)
<b>Current consumption without load</b>	100 mA max
<b>Max load current</b>	50 mA for channel 20 mA for channel (line driver)
<b>Output type</b>	NPN NPN open collector push-pull line driver
<b>Max output frequency</b>	150 kHz EL series 220 kHz ER series
<b>Counting direction</b>	A leads B clockwise (shaft view)
<b>Electromagnetic compatibility</b>	IEC 61000-6-2 IEC 61000-6-4

## Mechanical specifications

<b>Shaft diameter</b>	$\phi$ 6 mm
<b>Enclosure rating</b>	IP 54 (IEC 60529)
<b>Max rotation speed</b>	3000 rpm
<b>Max shaft load</b>	5 N (0.5 kgf) axial 5 N (0.5 kgf) radial
<b>Shock</b>	50 G, 11 ms (IEC 60068-2-27)
<b>Vibration</b>	10 G, 10 ... 2000 Hz (IEC 60068-2-6)
<b>Body material</b>	EN-AW 2011 aluminum
<b>Shaft material</b>	1.4305 / AISI 303 stainless steel
<b>Housing material</b>	PA 66 glass fiber reinforced
<b>Bearings</b>	2 ball bearings
<b>Bearings life</b>	10 <sup>9</sup> revolutions
<b>Operating temperature</b>	-10° ... +60°C series EL -20° ... +70°C series ER
<b>Storage temperature</b>	-25° ... +70°C
<b>Weight</b>	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

