

## MAIN FEATURES

∅ 48 encoder series recommended for motor feedback.

- Easy mechanical mounting
- Small dimensions
- Up to 2048 ppr with zero signal
- Several output types available
- Up to 150 kHz output frequency
- 6000 RPM rotation speed



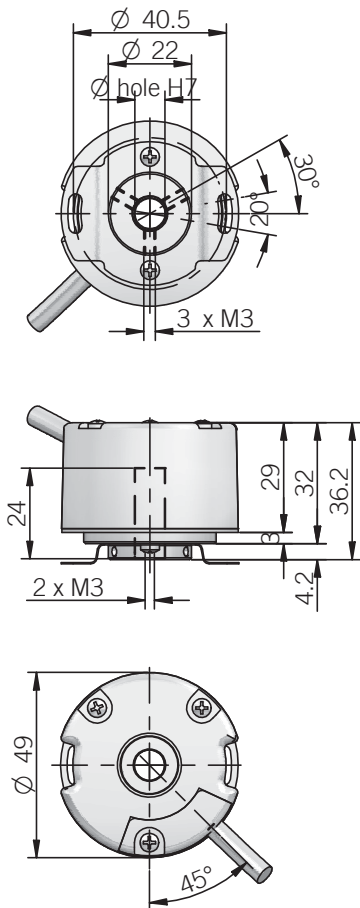
## ORDERING CODE

**EL 48 C 1000 Z 8/24 P 8 X 6 PR . XXX**

<b>SERIES</b> incremental encoder series <b>EL</b>	<b>SIZE</b> mm <b>48</b>	<b>TYPE</b> blind hollow shaft <b>C</b> through hollow shaft <b>P</b>	<b>RESOLUTION</b> ppr from <b>1</b> to <b>2048</b>	<b>ZERO PULSE</b> without zero pulse <b>S</b> with zero pulse <b>Z</b>	<b>POWER SUPPLY</b> <b>5</b> V DC <b>5</b> <b>8</b> ... <b>24</b> V DC <b>8/24</b>	<b>SHAFT DIAMETER</b> <b>6</b> mm <b>8</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>VARIANT</b> <b>XXX</b> custom version	<b>OUTPUT TYPE</b> <b>PR</b> radial cable output (standard length 0.3 m)	<b>MAX ROTATION SPEED</b> <b>6</b> 6000 rpm	<b>ENCLOSURE RATING</b> <b>X</b> IP 40
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*N.B.: please directly contact our offices for pulses availability*

## EL 48 C / P



### HOW TO MOUNT IT

- Couple encoder shaft with motor shaft.
- Fix spring to motor flange without tightening it.
- Fix the encoder shaft with the two grub screws.
- Turn for phasing.
- Fix the spring.



### Electrical specifications

<b>Resolution</b>	from 1 to 2048 ppr
<b>Power supply</b>	5 V DC $\pm$ 10% 8 ... 24 V DC $\pm$ 5%
<b>Current consumption without load</b>	100 mA max
<b>Max load current</b>	30 mA for channel 15 mA for channel (line driver)
<b>Output type</b>	NPN NPN open collector push-pull line driver
<b>Max output frequency</b>	150 kHz
<b>Counting direction</b>	A leads B clockwise (shaft view)
<b>Electromagnetic compatibility</b>	IEC 61000-6-1 IEC 61000-6-3

### Mechanical specifications

<b>Shaft diameter</b>	6 / 8 mm
<b>Enclosure rating</b>	IP 40 (IEC 60529)
<b>Max rotation speed</b>	6000 rpm
<b>Shock</b>	50 G, 11 ms (IEC 60068-2-27)
<b>Vibration</b>	10 G, 10 ... 500 Hz (IEC 60068-2-6)
<b>Bearings</b>	2 ball bearings
<b>Bearings life</b>	10 <sup>9</sup> revolutions
<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>Operating temperature</b>	-20° ... +85 °C
<b>Storage temperature</b>	-25° ... +85 °C
<b>Weight</b>	100 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