ELTRA®

EL - ER 63 A / D / E
SOLID SHAFT INCREMENTAL ENCODER

Specifications

Standard ø 63 mm encoder series for industrial applications with high mechanical resistance requirements. These encoders are designed to support high radial and axial shaft load and they can be mounted by means of flanges or fixing clamps.

- 3 channel encoder (A / B / Z) up to 24000 ppr
- Power supply up to +28 VDC with several electronic interfaces available
- Up to 500 kHz output frequency
- Cable or connector output
- Available with metal cover for heavy duty applications
- Solid shaft diameter up to 10 mm
- Mounting by synchronous or centering 2.5” square flange

ORDERING CODE

<table>
<thead>
<tr>
<th>SERIES</th>
<th>ER 63A</th>
<th>M*</th>
<th>500</th>
<th>S</th>
<th>5/28</th>
<th>N</th>
<th>8</th>
<th>X</th>
<th>6</th>
<th>P</th>
<th>R</th>
<th>.XXX</th>
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<tbody>
<tr>
<td>incremental encoder series EL</td>
<td>incremental encoder series ER</td>
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<td>同步端面ø 31,75 mm 63A</td>
<td>中心端面ø 31,75 mm 63D</td>
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<td>中心端面ø 50 mm 63E</td>
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METAL COVER
* add for the metal cover M

RESOLUTION
ppr from 1 to 24000
see table for pulses availability

ZERO PULSE
without zero pulse Z
with zero pulse S

POWER SUPPLY
(with L electronic interface) 5 V DC
(with L or PC electronic interface) 8 .. 24 V DC 8/24
5 .. 28 V DC 5/28

ELECTRONIC INTERFACE
NPN N
NPN open collector C
push-pull P
push-pull protected (AEIC-7272) PC
line driver L
power supply 5/28V - output RS-422 RS

SHAFT DIAMETER
mm 8
9,52 (3/8") mm 9
mm 10

ENCLOSURE RATING
IP 54 X
IP 66 S

MAX ROTATION SPEED
(IP 66) 3000 rpm 3
(IP 54) 6000 rpm 6

OUTPUT TYPE
cable (standard length 1.5 m) P
MIL connector M
JIS-C-5432 connector J
M12 connector M12
M23 connector H
IP40 IEC 60130-3 connector C
female connector included, without female please add 162 as variant code

DIRECTION TYPE
axial A
radial R

VARIANT
custom version XXX

tel: +421 552 601 099
e-mail: info@eltra-trade.com
ACCESSORIES
set n.3 fixing clamps for model 63 A
P/N 94080001

www.eltra-trade.com
## Electrical Specifications

<table>
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<th><strong>Resolution</strong></th>
<th>from 1 to 24000 ppr</th>
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</table>
| **Power supply** | 5 = 4.5 ... 5.5 V DC  
5/28 = 4.75 ... 29.4 V DC  
8/24 = 7.6 ... 25.2 V DC (reverse polarity protection) |
| **Power draw without load** | 800 mW |
| **Max load current** | N / C / P / PC = 50 mA / channel  
L / RS = 20 mA / channel |
| **Output type** | NPN / NPN open collector / push-pull / line driver |
| **Max output frequency** | 250 kHz up to 6000 ppr  
500 kHz from 7200 ppr |
| **Counting direction** | A leads B clockwise (shaft view) |

*Output levels according to power supply, for further details please see under Technical basics section*

## Mechanical Specifications

<table>
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<tr>
<th><strong>Shaft diameter</strong></th>
<th>ø 8 / 9.52 (3/8&quot;) / 10 mm</th>
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</table>
| **Enclosure rating** | X = IP 54 (IEC 60529)  
S = IP 66 (IEC 60529) |
| **Max rotation speed** | X = 6000 rpm  
S = EL 3000 rpm / 60° C  
ER 3000 rpm / 70° C - 2000 rpm / 85° C |
| **Max shaft load** | 200 N axial / radial |
| **Shock** | 50 G, 11 ms (IEC 60068-2-27) |
| **Vibration** | 10 G, 10 ... 2000 Hz (IEC 60068-2-6) |
| **Moment of inertia** | 1.5 x 10⁻⁴ kgm² |
| **Starting torque** | < 0.02 Nm (IP 54)  
< 0.06 Nm (IP 66) |
| **Body material** | EN-AW 2011 aluminum |
| **Shaft material** | 1.4305 / AISI 303 stainless steel |
| **Housing material** | PA66 glass fiber reinforced / painted aluminum |
| **Bearings** | 2 ball bearings |
| **Bearing life** | 10⁹ revolutions |
| **Operating temperature** | -10° ... +60°C (+14° ... +140°F) EL series  
-25° ... +85°C (-13° ... +185°F) ER series |
| **Storage temperature** | -25° ... +70°C (-13° ... +158°F) |
| **Weight** | 350 g (12,35 oz)  
450 g (15,87 oz) with metal cover |

## Connections

### EL Series Resolutions


### ER Series Resolutions


Please directly contact our offices for other pulses, preferred resolutions in bold.