EPLC
RODLESS LINEAR POTENTIOMETER

Specifications

EPLC is an absolute linear potentiometer transducer without internal rod. This transducer is characterized by a cursor with integrated coupling sliding on the axis. The main characteristic is the absence of variations on the electrical output signal outside of the theoretical electrical stroke.

ORDERING CODE

<table>
<thead>
<tr>
<th>SERIES</th>
<th>EPLC 500</th>
<th>X</th>
<th>4</th>
<th>C4</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td>STROKE</td>
<td>mm from 100 to 1500</td>
<td>see table for stroke availability</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENCLOSURE RATING</td>
<td>IP 40 X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TRAVEL SPEED</td>
<td>max speed 10 m/s</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OUTPUT TYPE</td>
<td>DIN 43650-A 4 pin connector C4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OUTPUT DIRECTION</td>
<td>axial A</td>
<td></td>
<td></td>
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</tbody>
</table>

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ELECTRICAL SPECIFICATIONS

- Resolution: virtually infinite
- Independent linearity: ± 0,05 %
- Repeatability: 0,01 mm
- Resistance tolerance: ± 20 %
- Recommended cursor current: < 0,1 µA
- Resistance temperature coefficient: -200 ... 200 ppm / °C typical
- Output voltage temperature coefficient: ≤ 5 ppm / °C typical
- Power dissipation: 3 W at 40 °C / 0 W at 120 °C
- Max cursor current: 10 mA max
- Applicable voltage: 60 V max
- Electrical insulation: > 100 MΩ, 500 VDC, 1 bar, 2 s
- Dielectric strenght: < 100 µA, 500 VAC, 50 Hz, 1bar, 2 s

MECHANICAL SPECIFICATIONS

- Stroke: 100 - 150 - 200 - 300 - 400 - 500 - 600 - 700 - 850 - 900 - 1000 - 1250 - 1500 mm
- Useful electric stroke (EEU) (+3/-0 mm)
- Theoretical electric stroke (EET) (±1 mm)
- Mechanical stroke (EM): EET + 10mm (100 ... 1500)
- Resistance (on the EET): 5 kΩ (100 ... 300), 10 kΩ (400 ... 1000), 20 kΩ (1250 ... 1500)
- Case length (LP): EET + 150mm (100 ... 1500)
- Travel speed: 4 = 4 m/s max, 10 = 10 m/s max
- Acceleration: 200 m/s² max
- Enclosure rating: IP 40 (IEC 60529)
- Shock: 50 G, 11 ms (IEC 60068-2-27)
- Vibration: 20 G, 5 ... 2000 Hz (IEC 60068-2-6)
- Displacement force: ≤ 1,2 N max
- Housing material: anodized aluminium / Nylon 66 G 25
- Mounting: brackets with variable center-to-center distance with M6 screw ISO4017 - DIN933
- Operating temperature: -30° ... +100°C (-22° ... +212°F)
- Storage temperature: -50° ... +120°C (-58° ... +248°F)

CONNECTIONS

<table>
<thead>
<tr>
<th>Function</th>
<th>Cable output</th>
<th>4 pin C4 output</th>
<th>5 pin C5 output</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>blue</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>-</td>
<td>brown</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>output</td>
<td>yellow</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>nc</td>
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<td>nc</td>
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<td>/</td>
</tr>
<tr>
<td>shield</td>
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</tbody>
</table>

Important: data are valid if the transducer is used as a ratiometric device with a maximum applicable current ≤ 0,1 µA

Electrical connections:
- connect the transducer according to the reported connections
- DO NOT use it as a variable resistance
- the transducer calibration has to be done setting the stroke in order to have an output signal between 1% and 99% of the voltage level