Series LLS62X
Long Stroke LVDT Displacement Transducer, DC/DC with Isolated Output, Spring Armature

Description
The Series LLS62X is a high performance long stroke DC powered LVDT displacement transducer with a spring return armature. It is identical to the LLS61X but operates from either +5 Vdc regulated or +6 to 18 Vdc unregulated supply and generates an output signal of ± 2 Vdc that is isolated from the input voltage. The armature is restrained and guided by a very low friction bearing assembly. An internal spring automatically positions the armature to its full extension. This unique design is used for applications where it is not possible to connect the transducer armature to the moving part being measured. These displacement transducers are ruggedly constructed of all stainless steel. All Series LLS62X displacement transducers are shipped with traceable calibration certificates.

Standard Features
- Stroke ranges from ±0.5 inches to ±3.0 inches
- Spring Return Armature
- Low Friction Bearing Assembly
- DC/DC with Isolated Voltage Output 2.2Vdc
- ±0.5% Linearity
- Encapsulated Integral Electronics
- All Stainless Steel Construction
- Traceable Calibration Certificate

Optional Features
- Improved Linearity (for some ranges)
- Sealing Against Moisture Ingress
- Probe Ends
- Mounting Blocks

Performance

<table>
<thead>
<tr>
<th>Stroke Ranges</th>
<th>± 0.1 inches to ± 3.0 inches</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linearity</td>
<td>± 0.5% of full stroke max</td>
</tr>
<tr>
<td></td>
<td>± 0.25% or ± 0.1 options on some ranges</td>
</tr>
<tr>
<td>Output</td>
<td>± 2.2 Vdc Nominal (Isolated from Input Voltage)</td>
</tr>
</tbody>
</table>
Series LLS62X Specifications

Dimensions (inches)

<table>
<thead>
<tr>
<th>Range</th>
<th>Linearity error (% F.S.)</th>
<th>L</th>
<th>X</th>
<th>Weight</th>
<th>Force at X</th>
<th>Spring Rate</th>
<th>Inward over-travel</th>
<th>Outward over-travel</th>
</tr>
</thead>
<tbody>
<tr>
<td>±0.5''</td>
<td>&lt;± 0.5</td>
<td>7.2''</td>
<td>1.5''</td>
<td>8oz</td>
<td>4.6oz</td>
<td>2.0oz/inch</td>
<td>0.04''</td>
<td>0.51''</td>
</tr>
<tr>
<td>±1''</td>
<td>&lt;± 0.5</td>
<td>8.3''</td>
<td>2.5''</td>
<td>10oz</td>
<td>7.2oz</td>
<td>3.0oz/inch</td>
<td>0.12''</td>
<td>0.39''</td>
</tr>
<tr>
<td>±2''</td>
<td>&lt;± 0.5</td>
<td>12.8''</td>
<td>3.0''</td>
<td>14oz</td>
<td>6oz</td>
<td>1.8oz/inch</td>
<td>0.31''</td>
<td>0.55''</td>
</tr>
<tr>
<td>±3''</td>
<td>&lt;± 0.5</td>
<td>17.2''</td>
<td>4.5''</td>
<td>1.1lb</td>
<td>1lbs</td>
<td>3.2oz/inch</td>
<td>0.59''</td>
<td>0.59''</td>
</tr>
</tbody>
</table>

Modifications and Warranty

MODIFICATIONS: We realize transducer applications vary greatly and as such our designs are flexible. Choice of pressure port, electrical termination, material compatibility and performance characteristics are a few of the many options available. Specifications on this datasheet represent the standard configuration only. Product and company names listed are trademarks of their respective companies. Specifications subject to change without notice.

WARRANTY: Stellar Technology warrants that its product shall be free from defective workmanship and/or material for a twelve month period from the date of shipment, provided that Stellar Technology’s obligation hereunder shall be limited to correcting any defective material FOB our factory. No allowance will be made for any expenses incurred for correcting any defective workmanship and/or material without written consent by Stellar Technology. This warranty is in lieu of all other warranties expressed or implied.

ISO 9001/AS9100

Due to the nature of technology, changes are inevitable. For latest technical specifications, see our website.

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