The Series LLC62X is a high performance long stroke DC powered LVDT displacement transducer with a captive guided armature. It is identical to the LLC61X but operates from either +5Vdc regulated or +6 to 18Vdc unregulated supply and generates an output signal of ± 2Vdc that is isolated from the input voltage. The armature is captured in the LVDT housing and is guided by a low-friction bearing assembly. These LVDT’s have a total stroke range of 1 to 37 inches. The Series LLC62X displacement transducers can be used for both static and dynamic applications. These displacement transducers are ruggedly constructed of all stainless steel. All Series LLC62X displacement transducers are shipped with traceable calibration certificates.

**Standard Features**
- Stroke ranges from ±0.5 inches to ±18.5 inches
- Captive 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
- Self Aligning Rod-End Bearing
- Sealing Against Moisture Ingress
- Mounting Blocks

**Performance**

<table>
<thead>
<tr>
<th>Stroke Ranges</th>
<th>± 0.5 inches to ± 18.5 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>
### Dimensions (inches)

<table>
<thead>
<tr>
<th>Range</th>
<th>Linearity error (%) F.S.</th>
<th>L</th>
<th>X</th>
<th>D3</th>
<th>Total Weight</th>
<th>TF</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>7.6''</td>
<td>1.5''</td>
<td>0.187''</td>
<td>12oz</td>
<td>0.6''</td>
<td>0.39''</td>
<td>0.47''</td>
</tr>
<tr>
<td>±1''</td>
<td>&lt;± 0.5</td>
<td>8.7''</td>
<td>2.5''</td>
<td>0.187''</td>
<td>14oz</td>
<td>0.6''</td>
<td>0.51''</td>
<td>0.39''</td>
</tr>
<tr>
<td>±2''</td>
<td>&lt;± 0.5</td>
<td>13.2''</td>
<td>3.0''</td>
<td>0.187''</td>
<td>1.1lb</td>
<td>0.6''</td>
<td>0.39''</td>
<td>0.55''</td>
</tr>
<tr>
<td>±3''</td>
<td>&lt;± 0.5</td>
<td>17.6''</td>
<td>4.5''</td>
<td>0.187''</td>
<td>1.4lb</td>
<td>0.6''</td>
<td>0.94''</td>
<td>0.59''</td>
</tr>
<tr>
<td>±4''</td>
<td>&lt;± 0.5</td>
<td>19.4''</td>
<td>5.0''</td>
<td>0.187''</td>
<td>1.7lb</td>
<td>0.6''</td>
<td>0.31''</td>
<td>0.55''</td>
</tr>
<tr>
<td>±5''</td>
<td>&lt;± 0.5</td>
<td>26.9''</td>
<td>7.0''</td>
<td>0.187''</td>
<td>2.3lb</td>
<td>0.6''</td>
<td>0.47''</td>
<td>0.67''</td>
</tr>
<tr>
<td>±10''</td>
<td>&lt;± 0.5</td>
<td>34.4''</td>
<td>10.0''</td>
<td>0.187''</td>
<td>3.2lb</td>
<td>1.3''</td>
<td>0.87''</td>
<td>0.98''</td>
</tr>
<tr>
<td>±15''</td>
<td>&lt;± 0.5</td>
<td>42.0''</td>
<td>12.0''</td>
<td>0.187''</td>
<td>3.7lb</td>
<td>1.1''</td>
<td>1.34''</td>
<td>1.38''</td>
</tr>
<tr>
<td>±18.5''</td>
<td>&lt;± 0.5</td>
<td>68.5''</td>
<td>20.0''</td>
<td>0.236''</td>
<td>5.8lb</td>
<td>1.1''</td>
<td>0.20''</td>
<td>1.30''</td>
</tr>
</tbody>
</table>

### Mechanical Characteristics
- **Case Material**: Stainless steel.
- **Armature Type**: Captive Guided.
- **Probe Thread**: M5 x 0.8.

### Electrical Characteristics
- **Excitation / Supply**: 5 Vdc ±10% regulated.
- **Output Load (Minimum)**: 2K Ohms.
- **Output Ripple**: 30mV peak to peak.
- **Output Bandwidth**: 200 Hz (flat).
- **Output Impedence**: 2 Ohms.
- **Electrical Termination**: Polyurethane Shield Cable (6 ft.). Longer cable lengths (available option). Radial Exit.

### Environmental Characteristics
- **Operating Temperature Range**: -60°F to +160°F
- **Temperature Effect on Zero**: ±0.006% F.S./°F (typical).
- **Temperature Effect on Span**: ±0.017% F.S./°F (typical).

### 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.

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**SERIES LLC62X**

**Specifications**

Baseline Configuration Specs Represented. Modifications Encouraged - See Below

Custom Designs Available