**Series LMU60X**

Miniature LVDT Displacement Transducer, AC/AC, Unguided Armature

**Description**
The Series LMS60X is a miniature size precision LVDT with an unguided armature. The armature is loose fit in the bore of the LVDT and is attached to the moving part by a male thread. Precise alignment along the bore produces a frictionless movement. The Series LMU60X is ideal for mechanical vibration measurements. The armature can be separated from the body without disconnecting either part. This position sensor requires separate signal conditioning and provides optimum performance when powered with between 0.5V and 7V at 5kHz. Because of their small size, the Series LMU60X is ideal for applications with limited space. These displacement transducers are ruggedly constructed of stainless steel and are able to withstand the high ambient temperature and high vibration of many industrial environments. All Series LMU60X displacement transducers are shipped with traceable calibration certificates.

**Standard Features**
- Stroke ranges from ±0.025 inches to ±0.5 inches
- Miniature Size
- Unguided Armature
- Low Friction Bearing Assembly
- AC Power
- ±0.5% Linearity
- Broad Temperature Range
- All Stainless Steel Construction
- Traceable Calibration Certificate
- Axial and Radial Cable Exit

**Optional Features**
- Improved Linearity
- Expanded Operating Temperature Range
- Radiation Resistance to 100 M rads
- Mounting Blocks

**Performance**

| **Stroke Ranges** | ± 0.025 inches to ± 0.5 inches |
| **Linearity**     | ± 0.5% of full stroke max        |
|                   | ± 0.25% or ± 0.1 options on some ranges |
| **Output (Full scale rms)** | 43 mV/V to 775 mV/V (dependent on stroke) |

Request Quote
Series LMU60X
Specifications

Dimensions (inches)

AXIAL:

<table>
<thead>
<tr>
<th>Range</th>
<th>Lin. error (% F.S.)</th>
<th>L (in)</th>
<th>X (in)</th>
<th>D3 (in)</th>
<th>ID (in)</th>
<th>Total Weight (oz)</th>
<th>Armature Weight (oz)</th>
<th>TF (in)</th>
<th>Over-travel (nom)</th>
<th>Sensitivity (nom)</th>
</tr>
</thead>
<tbody>
<tr>
<td>±0.025&quot;</td>
<td>±0.5</td>
<td>1.4&quot;</td>
<td>1.1&quot;</td>
<td>0.08&quot;</td>
<td>0.12&quot;</td>
<td>0.5oz</td>
<td>0.05oz</td>
<td>0.8&quot;</td>
<td>0.31&quot;</td>
<td>43mV/V</td>
</tr>
<tr>
<td>±0.1&quot;</td>
<td>±0.5</td>
<td>1.7&quot;</td>
<td>0.76&quot;</td>
<td>0.079&quot;</td>
<td>0.11&quot;</td>
<td>0.6oz</td>
<td>0.06oz</td>
<td>0.6&quot;</td>
<td>0.06&quot;</td>
<td>375mV/V</td>
</tr>
<tr>
<td>±0.2&quot;</td>
<td>±0.5</td>
<td>2.2&quot;</td>
<td>1.00&quot;</td>
<td>0.079&quot;</td>
<td>0.11&quot;</td>
<td>0.7oz</td>
<td>0.06oz</td>
<td>0.7&quot;</td>
<td>0.08&quot;</td>
<td>700mV/V</td>
</tr>
<tr>
<td>±0.3&quot;</td>
<td>±0.5</td>
<td>2.3&quot;</td>
<td>1.2&quot;</td>
<td>0.08&quot;</td>
<td>0.10&quot;</td>
<td>0.7oz</td>
<td>0.08oz</td>
<td>0.7&quot;</td>
<td>0.15&quot;</td>
<td>502mV/V</td>
</tr>
<tr>
<td>±0.4&quot;</td>
<td>±0.5</td>
<td>2.5&quot;</td>
<td>1.3&quot;</td>
<td>0.08&quot;</td>
<td>0.10&quot;</td>
<td>0.9oz</td>
<td>0.07oz</td>
<td>0.7&quot;</td>
<td>0.17&quot;</td>
<td>576mV/V</td>
</tr>
<tr>
<td>±0.5&quot;</td>
<td>±0.5</td>
<td>3.1&quot;</td>
<td>1.4&quot;</td>
<td>0.08&quot;</td>
<td>0.10&quot;</td>
<td>1.2oz</td>
<td>0.08oz</td>
<td>0.7&quot;</td>
<td>0.17&quot;</td>
<td>775mV/V</td>
</tr>
</tbody>
</table>

Electrical Characteristics

Excitation Supply
0.5V to 7V rms, 2kHz to 10kHz, sinusoidal.
(Calibrated at 5V rms, 5kHz, sinusoidal).

Electrical Termination
High Quality Polyurethane Shield Cable (6 ft.).

Phase Shift
10° (Typical).

Output Load (Optimum)
100K Ohms.

Environmental Characteristics

Operating Temperature Range
-4°F to +285°F.

Temperature Effect on Zero
±0.006%/°F (typical).

Temperature Effect on Span
±0.006%/°F (typical).

MODEL IDENTIFICATION

L M U 6 0 X

LORD Corporation • All Rights Reserved
Datasheet P/N: 233624B DCN 9338
237 Commerce Drive • Amherst, NY 14228 • USA
Tel: 716.250.1900 • Fax: 716.250.1909
Web: stellartech.com • Email: info@stellartech.com

Due to the nature of technology, changes are inevitable. For latest technical specifications, see our website.
Series LMU60X
Specifications

Dimensions (inches)

<table>
<thead>
<tr>
<th>Range</th>
<th>Linearity error (% F.S.)</th>
<th>L</th>
<th>X</th>
<th>D3</th>
<th>ID</th>
<th>Total Weight</th>
<th>Armature Weight</th>
<th>TF</th>
<th>Inward over-travel</th>
<th>Sensitivity (nom)</th>
</tr>
</thead>
<tbody>
<tr>
<td>±0.1&quot;</td>
<td>≤± 0.5</td>
<td>1.77&quot;</td>
<td>0.76&quot;</td>
<td>0.079&quot;</td>
<td>0.12&quot;</td>
<td>0.6oz</td>
<td>0.06oz</td>
<td>0.6&quot;</td>
<td>0.06&quot;</td>
<td>375mV/V</td>
</tr>
<tr>
<td>±0.2&quot;</td>
<td>≤± 0.5</td>
<td>2.3&quot;</td>
<td>1.00&quot;</td>
<td>0.079&quot;</td>
<td>0.12&quot;</td>
<td>0.7oz</td>
<td>0.06oz</td>
<td>0.7&quot;</td>
<td>0.08&quot;</td>
<td>700mV/V</td>
</tr>
<tr>
<td>±0.3&quot;</td>
<td>≤± 0.5</td>
<td>2.4&quot;</td>
<td>1.2&quot;</td>
<td>0.079&quot;</td>
<td>0.100&quot;</td>
<td>0.7oz</td>
<td>0.06oz</td>
<td>0.7&quot;</td>
<td>0.15&quot;</td>
<td>502mV/V</td>
</tr>
<tr>
<td>±0.4&quot;</td>
<td>≤± 0.5</td>
<td>2.6&quot;</td>
<td>1.3&quot;</td>
<td>0.079&quot;</td>
<td>0.100&quot;</td>
<td>0.9oz</td>
<td>0.07oz</td>
<td>0.7&quot;</td>
<td>0.17&quot;</td>
<td>576mV/V</td>
</tr>
<tr>
<td>±0.5&quot;</td>
<td>≤± 0.5</td>
<td>3.2&quot;</td>
<td>1.4&quot;</td>
<td>0.079&quot;</td>
<td>0.100&quot;</td>
<td>1.2oz</td>
<td>0.08oz</td>
<td>0.7&quot;</td>
<td>0.17&quot;</td>
<td>775mV/V</td>
</tr>
</tbody>
</table>