### LUH-F

**High-accuracy Tension/Compression Load Cell**

- Nonlinearity: Within ±0.02% RO
- 500 N to 200 kN

#### Excellent zero float characteristics

Tension/Compression load cells

- Remote sensing available* (See page 9-14.)

LUH-F series are tension/compression load cells featuring within ±0.02% RO nonlinearity. The hermetically-sealed structure with inert gas filled in ensures stable performance.

*To use the remote sensing function, use the recommended products for combination.

#### Specifications

<table>
<thead>
<tr>
<th>Performance</th>
<th>Rated Capacity</th>
<th>Nonlinearity</th>
<th>within ±0.02% RO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hysteresis</td>
<td>±2 mV/V ±0.1%</td>
<td>±0.02% RO or less (LUH-50KF to 500KF)</td>
<td></td>
</tr>
</tbody>
</table>

#### Environmental Characteristics

- Safe Temperature: -35 to 80°C
- Compensated Temperature: -10 to 60°C
- Temperature Effect on Zero: Within ±0.0015% RO/°C
- Temperature Effect on Output: Within ±0.001%/°C

#### Electrical Characteristics

- Safe Excitation: 20 V AC or DC
- Recommended Excitation: 1 to 10 V AC or DC
- Input Resistance: 350 Ω ±0.5%
- Output Resistance: 350 Ω ±0.5%
- Cable: 6-conductor (0.5 mm²) chloroprene shielded cable, 9.5 mm diameter by 5 m long, bared at the tip.
  (Shield wire is not connected to the case.)

#### Mechanical Properties

- Safe Overloads: 150%
- Natural Frequencies: See table below.
- Weight: See table below.
- Others: Drop prevention stopper mountable
  *Customers have to prepare anti-dropping stoppers by themselves.
- Compliance: Directive 2011/65/EU (RoHS)

#### Standard Accessories

- 4 hexagon socket head bolts M5, L=10 mm (30 mm with LUH-10TF and 20TF)
- 1 hexagon bar (Opposite side 2.5 mm)

#### Optional Accessories

- Saddle CA-B (Page 2-72)
- Mount base CF (Page 2-72)
- Movable saddle ER-B (Page 2-73)
- Ball joint TU (Page 2-75)

#### Rated Output

- LUH-50KF: ±500 N
- LUH-100KF: ±1 kN
- LUH-200KF: ±2 kN
- LUH-500KF: ±5 kN
- LUH-1TF: ±10 kN
- LUH-2TF: ±20 kN
- LUH-5TF: ±50 kN
- LUH-10TF: ±100 kN
- LUH-20TF: ±200 kN

*To use the remote sensing function, use the recommended products for combination.

#### ZERO FLOAT

Zero float means such a phenomenon that a cycle of continuously applied tensile & compressive loads causes the zero to float. The value is expressed in percentage of the rated output. It is also called cyclic zero shift.
Note: Special accessories for tensile load measurement should be assembled at our factory.

Dimensions

<table>
<thead>
<tr>
<th>Models</th>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>LUH-50KF</td>
<td>M12</td>
<td>17</td>
</tr>
<tr>
<td>LUH-100KF</td>
<td>P=1.75</td>
<td>17</td>
</tr>
<tr>
<td>LUH-200KF</td>
<td>M18</td>
<td>22</td>
</tr>
<tr>
<td>LUH-500KF</td>
<td>P=1.75</td>
<td>22</td>
</tr>
</tbody>
</table>

In combination with movable saddle (ER) and mount base (CF) (LUH-50KF to 2TF)

When using in combination with special accessories, consult with our sales engineer.

- In combination with saddle (CA)
- In combination with movable saddle (ER)
- In combination with ball joint (TU)

Load Cells

<table>
<thead>
<tr>
<th>Models</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>LUH-50KF</td>
<td>TU-12</td>
<td>207</td>
<td>177</td>
<td>M12 P=1.75</td>
<td>12</td>
<td>16</td>
</tr>
<tr>
<td>LUH-100KF</td>
<td>TU-18</td>
<td>231</td>
<td>189</td>
<td>MT8 P=1.5</td>
<td>18</td>
<td>23</td>
</tr>
<tr>
<td>LUH-200KF</td>
<td>TU-18</td>
<td>231</td>
<td>189</td>
<td>MT8 P=1.5</td>
<td>18</td>
<td>23</td>
</tr>
<tr>
<td>LUH-500KF</td>
<td>TU-18</td>
<td>231</td>
<td>189</td>
<td>MT8 P=1.5</td>
<td>18</td>
<td>23</td>
</tr>
<tr>
<td>LUH-1TF</td>
<td>TU-14</td>
<td>210</td>
<td>173</td>
<td>M12 P=2</td>
<td>16</td>
<td>17</td>
</tr>
<tr>
<td>LUH-2TF</td>
<td>TU-14</td>
<td>210</td>
<td>173</td>
<td>M12 P=2</td>
<td>16</td>
<td>17</td>
</tr>
</tbody>
</table>

*From the viewpoint of guaranteed accuracy, allows neither a hook nor a shackle to be combined.

**Physical quantity indication**

**Dynamic measurement**

LUH-F Recommended products for combination

Instrumentation Amplifier

WGA-710C

Signal Conditioner

CDV-800A

-3.97

Other

Component

Tensile & compressive

Tensile

Outline