The GST Series of gear lever load cells are designed for the detection and measurement of tension and compression forces in gear shift application.

Construction is aluminum with a built-in amplifier, allowing for a very simple installation with only a 3 wire connection needed. Mechanical mounting is via various available threads, with custom designs also possible.

The output signal is proportional to the amount of force and is linear 0.5 to 4.5V output suitable for most common ECU’s. Configuration is available for either Sequential or ‘H’ Pattern Gearboxes. The Load Cell can be supplied without a cover, or with any of the cover options detailed on page 2.

The typical application is for uses such as: Flat Shift, Quickshifter, Torque Cut, Ignition Cut and Clutch-free Gearshift on race vehicles.

The load cells are generally installed on top of the gear change lever and will detect the level of force applied by the driver to change gear.

### TECHNICAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Range</strong></td>
<td>±35lbsf to 220lbsf (±150N to ±1000N)</td>
</tr>
<tr>
<td><strong>Safe Over Range</strong></td>
<td>±450lbsf (±2000N)</td>
</tr>
<tr>
<td><strong>Accuracy</strong></td>
<td>±0.5% FS Combined Linearity &amp; Hysteresis (CNLH)</td>
</tr>
<tr>
<td><strong>Thermal Effects</strong></td>
<td>Zero ±0.005% FS/°F (Sensitivity ±0.005% of Reading /°F)</td>
</tr>
<tr>
<td><strong>Output</strong></td>
<td>0.5V to 4.5V and 1mV/V (+V in Direction of Arrow)</td>
</tr>
<tr>
<td><strong>Operating Temperature Range</strong></td>
<td>-5°F to 185°F (-20°C to +85°C)</td>
</tr>
<tr>
<td><strong>Compensated Temperature Range</strong></td>
<td>32°F to 185°F (0°C to +85°C)</td>
</tr>
<tr>
<td><strong>Construction</strong></td>
<td>Aluminum</td>
</tr>
<tr>
<td><strong>Electrical Connection</strong></td>
<td>40&quot;, 55spec, 26AWG Cable + DR25 Sleeve</td>
</tr>
<tr>
<td><strong>Thread Sizes</strong></td>
<td>Please See Part Number Configurator - page 2</td>
</tr>
<tr>
<td><strong>Protection Class</strong></td>
<td>IP67</td>
</tr>
<tr>
<td><strong>EMC Protection</strong></td>
<td>EN 50082-1</td>
</tr>
<tr>
<td><strong>Vibration Protection</strong></td>
<td>Mil-Std-810C, Curve L, 20G</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>No Cover: 3.5oz (Excluding Cable) With Aluminum Cover: 5.6oz With Nylon Cover: 9.2oz</td>
</tr>
<tr>
<td><strong>Options</strong></td>
<td>Connector Fitted, Thread Size, Cover Fitted and Labelling</td>
</tr>
</tbody>
</table>

PMC/KA Sensors adopts a continuous development program which sometimes necessitates specification changes without notice.
**Part Number Configurator**

The KA configuration tool is used to specify a standard KA Sensor, other options are available.

### Mechanical Details

- **Dimensions in inches**
  - M5x0.8 (0.59"") Deep (to fit cover)
  - 0.79" Wrench Flats
  - 24AWG 55spec Cable DR25
  - Mounting thread (0.79" Deep)

- **Cover Options:**
  - Aluminum Domed - 207300
  - Aluminum Straight - 207350
  - Nylon Domed - 207100
  - Nylon Straight - 207150

All covers are fitted with an M5 countersunk screw, sub-flush from the top of the cover.

### Electrical Details

<table>
<thead>
<tr>
<th>+Ve Supply</th>
<th>0V Supply</th>
<th>Signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red</td>
<td>Black</td>
<td>White</td>
</tr>
</tbody>
</table>

**Sense**

- Temperature
- Acceleration
- Pressure
- Position
- Torque
- Speed
- Angle
- Force

**Services For:**

- Data Logging
- Telemetry
- Controls
- Wiring

**Contact Us**

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