# Vibrating Wire Load Cell

## Model 4310-GS-VLC Series

## FEATURES

- Vibrating wire sensors
- High stability and sensitivity
- Readings can be datalogged
- Rugged waterproof construction
- Accurately measures eccentric loading
- Versatile design for use with tiebacks, rockbolts, struts or arch supports

## General

*The Geosystems Vibrating Wire Load cell Model 4310 consists of a high-strength, heat-treated steel cylinder, with three to six vibrating wire strain gauges located around its circumference.*

*Loads applied to the cell are measured by the vibrating wire strain gauges and the readings averaged to minimise the effects of uneven and eccentric loading.*

## Description

*All model 4310 load cells are fitted with inbuilt thermistors to enable load reads to be corrected for temperature variation. The average sensitivity of these cells is 0.005% F.S.*

*The vibrating wire type load cell has proven long-term stability, and the housing and cable are permanently sealed for field conditions. The load cell is optionally supplied with a military standard connector mounted on the cell, or a specific length of cable. If a plug is fitted to the end of the cable, it should be protected (with a cap or closure) against dirt, moisture and damage.*

*A switch adaptor is available to facilitate the readout procedure. This unit enables rapid connection of all gauges to the readout box. Alternatively a multiplexer module can be used to automatically sum the outputs of the strain gauges. The total load can then be displayed by the readout unit in Engineering units.*

*Each load cell is supplied with a calibration certificate.*

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FOR FURTHER INFORMATION
environmental systems & services | 8 River Street, Richmond VIC 3121 Australia
T + 61 3 8420 8999 | F + 61 3 8420 8900 | geotechnical@esands.com | **www.geosystems.com.au**

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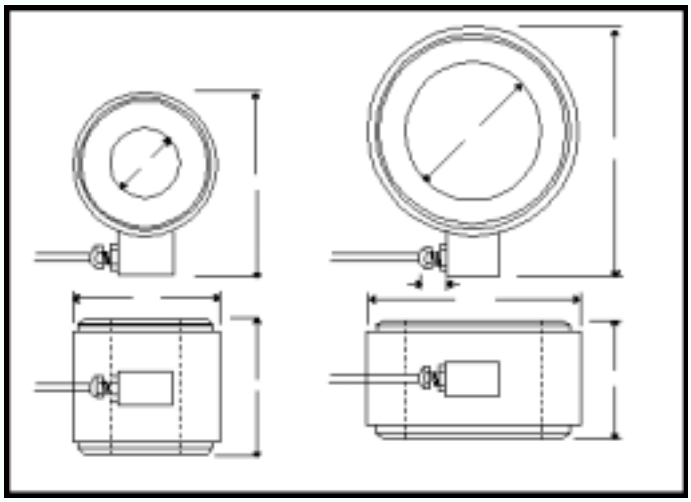
## Models



## Specifications

| | |
|---|---|
| **Model Number:** | 4900 |
| **Rated capacities:** | 50kg to 500 tonnes |
| **Over-range capacity:** | 50% F.S. |
| **Sensitivity (min.):** | 0.01% F.S. |
| **Accuracy (linearity):** | 0.5% F.S. |
| **Temperature range:** | -40 to +75°C |
| **Strain gauges:** | 3 or 6 (depending on dia meter of load cell) |

| Model Number | Load Range (tonnes) | Central Hole Diameter (mm) |
|---|---|---|
| 4310-100-0.0 | 45 | No hole |
| 4310-200-0.0 | 91 | No hole |
| 4310-300-0.0 | 136 | No hole |
| 4310-100-1.0 | 45 | 25 |
| 4310-100-2.0 | 45 | 50 |
| 4310-200-1.0 | 91 | 25 |
| 4310-200-2.0 | 91 | 50 |
| 4310-300-1.0 | 136 | 25 |
| 4310-300-2.0 | 136 | 50 |
| 4310-300-3.0 | 136 | 75 |
| 4310-400-3.0 | 181 | 75 |
| 4310-300-3.5 | 136 | 87.5 |
| 4310-300-4.0 | 136 | 100 |
| 4310-400-3.5 | 181 | 87.5 |
| 4310-400-4.0 | 181 | 100 |
| 4310-300-5.0 | 136 | 125 |
| 4310-400-5.0 | 181 | 125 |
| 4310-500-6.0 | 136 | 150 |
| 4310-400-6.0 | 181 | 150 |
| 4310-500-3.0 | 227 | 75 |
| 4310-500-4.0 | 227 | 100 |
| 4310-500-5.0 | 227 | 125 |
| 4310-500-6.0 | 227 | 150 |
| 4310-600-3.0 | 272 | 75 |
| 4900-600-4.0 | 272 | 100 |
| 4310-600-5.0 | 272 | 125 |
| 4310-600-6.0 | 272 | 150 |

## Accessories

- *Bearing Plates & Centraliser*
- *Portable Readout Unit*
- *Switch Adaptor Unit*
- *Dataloggers*
- *Terminal Box*

## Ordering Information

- *Model Number*
- *Maximum Load*
- *Diameter of Centre Hole*
- *Connector & Cable Requirements*
- *Cable Length*

Due to on-going design improvements and reviews, we reserve the right to amend product and specifications without prior notice

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