

## GT-LC Series Vibrating Wire Load Cell



### Features and Advantages

- High strength steel construction
- Proven long term accuracy
- Accommodates eccentric loading
- Multiple gauge system
- Data logger compatible
- Comes with 1 meter cables

Geotech GT-VWM 4000 series Vibrating Wire Load Cells consists of a cylinder of high strength steel with 3 vibrating wire strain sensors from a highly renowned company, Morton Geotechnical Services (MGS) of UK, mounted parallel to the longitudinal axis arranged equidistant around the circumference which measures the compression of the cylinder under load. They are available with a center hole to accommodate anchors, rock bolts and tendons. While solid load cells are manufactured to accommodate struts or beams monitoring. With the multi sensor configuration it is possible to obtain accurate readings under mildly eccentric loading conditions as the sensors are read individually. The readings from the individual sensors are averaged and when used in conjunction with a calibration factor, supplied with each cell, allow the applied load to be calculated.

### Advantages and limitations

- Vibrating wire load cells provide excellent long-term stability and can be used with long cables without adversely affecting the output frequency.
- They are waterproof and have low temperature coefficients.
- Vibrating wire load cells can be used in high radiation environments.
- Eccentric loading is accounted for by averaging the readings from all the strain sensors.
- Vibrating wire load cells are not able to measure dynamic loading and, although they are easily data logged, the multiplicity of sensors requires a corresponding number of channels of the multiplexer.



## Applications

Typical applications such as Measurement of loads acting on:

- Ground anchors
- Rock Bolts
- Tie-backs
- Struts.
- Arch Supports
- Props
- Beams

## Technical Specifications

Range **100T, 200T, 300T, 500T , 700T, 90.0T**

Accuracy **0.5% Full Scale**

Sensor Resolution **0.05% Full Scale.**

Output **1200 to 2800Hz**

Temperature Range **-20°C to 80°C.**

Thermistor **Thermistor 3k Ohms at 25°C**

## Physical Specification

Capacity	100T	200T	300T	500T	700T	900T
OD	140mm	175mm	128mm	165mm	195mm	221mm
ID	90mm	100mm	*	*	*	*
Height	140mm	150mm	115mm	115mm	115mm	115mm

*\* denotes actual dimension will be given upon ordering.*

## Ordering Information

- Capacity
- Cable length.
- Readout.
- Solid or hollow

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