

## VW Load Cell VWLC-5050 Series

Typically used to measure and monitor compressive load or force in structural members, struts and piles



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## Overview



The Geosense® VWLC 5050 series of Vibrating Wire Load Cells consist of a solid cylinder of high strength steel with 3 or 5 vibrating wire strain sensors mounted parallel to the longitudinal axis arranged equidistant around the circumference which measure the compression of the cylinder under load.

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.

The Geosense® VWLC 5050 series is typically used to measure and monitor compressive load or force in structural members, struts and piles.

Connection to the load cell is via a heavy duty multi-core sheathed cable which can be connected to a direct portable readout, data logging or Wi-SOS 400 system.

### APPLICATIONS

Measurement of load acting on:

Piles

Struts

Arch Supports

Props

### FEATURES

High strength steel construction

Load distribution plates available

Proven long term accuracy

Accommodates eccentric loading

Multiple gauge system

Data logger compatible

Available with plug connector or cable

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## Specifications

### VW LOAD CELL

Thermistor	3k Ohms at 25°C
Over range capacity	150% FS
Accuracy <sup>1</sup>	0.5% FS*
Resolution	0.05% FS
Output	1200 - 2800 Hz
Temperature range	-20°C to + 80°C
Material	High tensile, stress relieved steel

<sup>1</sup>System accuracy depends on loading conditions; \*0.25% FS. available on request: accuracy calculated using second order polynomial under laboratory conditions.

### STANDARD DIMENSIONS

Capacity(kN)	Sensors	OD(mm)	Height(mm)
500	3	87.5	100
750	3	87.5	100
1000	3	87.5	100
1250	3	107.4	100
1500	3	107.4	100
1750	3	123.6	100
2000	3	123.6	100
2500	5	137.9	100
3000	5	150.9	100
4000	5	173.9	100
5000	5	194.9	100

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### LOAD DISTRIBUTION PLATES

	OD(mm)	Height(mm)
To fit load cell OD 87.5mm	96	40
To fit load cell OD 107.4mm	115	40
To fit load cell OD 123.6mm	132	40
To fit 2500kN load cell OD 137.9mm	146	50
To fit 3000kN load cell OD 150.9mm	159	60
To fit 4000kN load cell OD 173.9mm	182	60
To fit 5000kN load cell OD 194.9mm	202	60

### ANCILLARY EQUIPMENT

MP12 readout

VW-2106 readout

Data loggers

Load distribution plates

Cable - Type 900 - VW Sensor with Foil Screen & Drain Wire

Centraliser bushings if required

Fly Connector

Cable End Protector

Jump Cables

### ORDERING INFORMATION

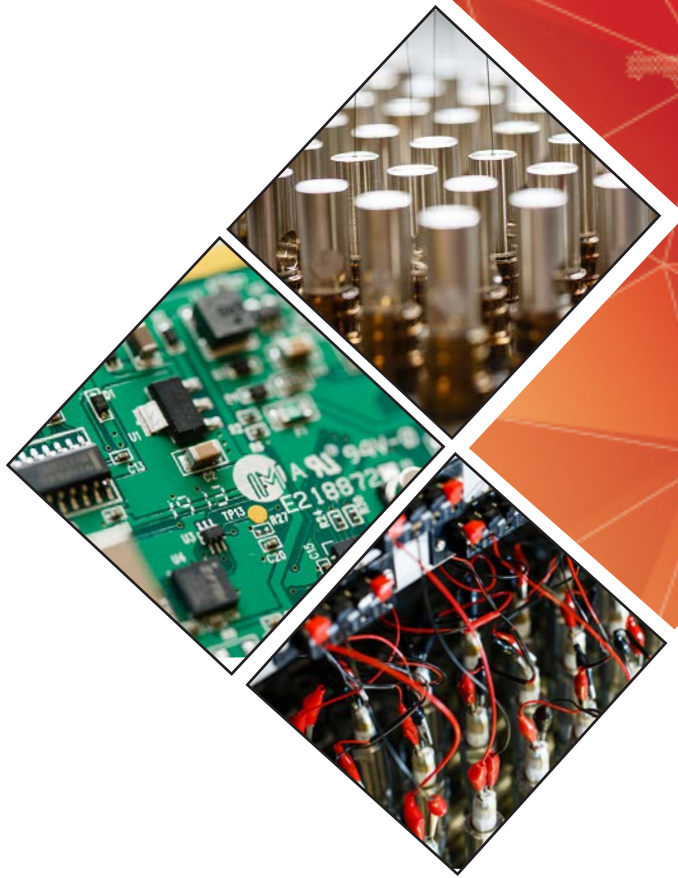
Capacity

Cable length

Readout

Load distribution plate

Connectors



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