

Hydraulic Load Cell HLC-6050 Series



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



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Overview



The Geosense® HLC-6050 series of Hydraulic Load Cells consist of a sensitive pressure pad formed by joining two stiff steel discs at their periphery. The void inside the cell is filled with de-aired fluid. When load is applied to the cell the pressure of the inside liquid changes. The changes in pressure correspond directly to the load applied.

The pressure in the loads cell is measured either by a manometer, vibrating wire or resistance transducer and are available in the following models:

HLC-6050 - Manometer for pressure indication

HLC-6051 - Vibrating wire transducer

HLC-6052 - Resistance transducer

Models HLC-6051/2 can be read with portable manual readouts, connected into a GeoLogger or Wi-SOS 480 automatic data acquisition system.

Mounting surfaces should be flat and parallel for optimum performance and the use of very stiff bearing plates and load distribution plates is recommended.

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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

LOAD CELL

Range (kN)	1000, 2000, 3000, 5000, 10000
Non linearity	± 1% FS
Over range	150%
Excitation	10V DC
Output	1.5mV/V
Bridge resistance	1400 Ohms
Number of sensors	16
Material	Stainless steel
Temperature range	-20 to + 70°C
Temperature effect on output	0.01% applied load/°C

DIMENSIONS

Capacity (kN)	OD (mm)	Height (mm)
250	107	30
500	145	30
750	174	30
1000	198	30
1250	219	30
1500	239	30
2000	273	30
3000	331	30
4000	380	30
5000	423	30

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Specifications



LOAD DISTRIBUTION PLATES

Capacity(kN)	OD(mm)	Height(mm)
250	53	30
500	94	30
750	122	40
1000	156	40
1250	188	40
1500	211	50
2000	241	50
2500	278	50
3000	285	60
4000	298	60
5000	315	60

ANCILLARY EQUIPMENT

MP12 readout

VWR-1 readout

Wi-SOS 480

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

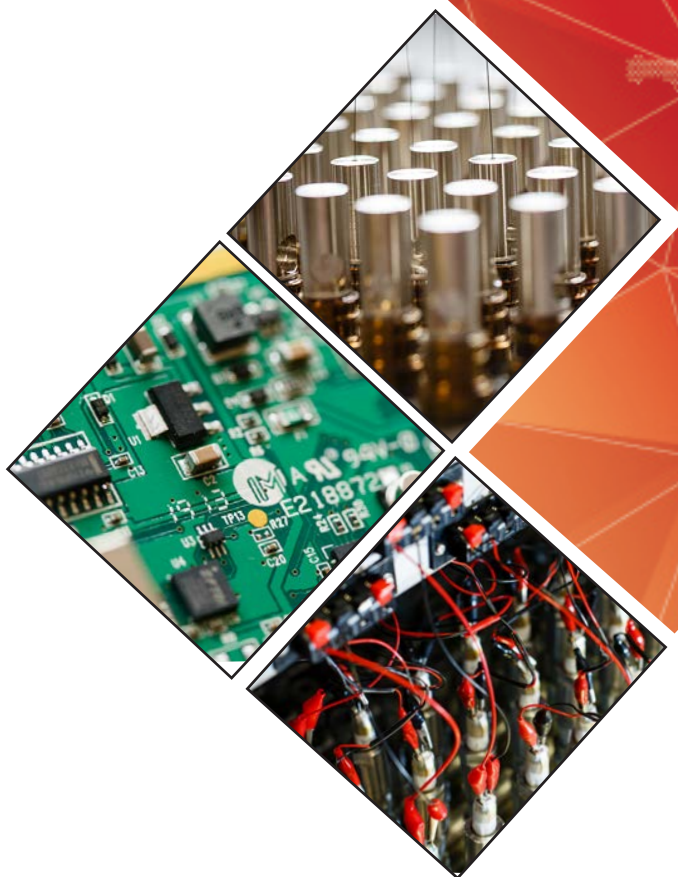
Output

Cable length

Readout

Load distribution plate

Connectors



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