

HYDRAULIC PRESSURE CELL



Hydraulic pressure cells were developed to measure the total load in embankments and foundations and are mainly used in dams, tunnels, bridges.

They may be embedded in concrete or cemented in fissures in rock or structures.

The pressure cell is made of two steel shells welded along their edges and filled with hydraulic fluid.

There are two diametrically opposed tubes attached to the cell: one is for filling the hydraulic fluid and the other for attaching a pressure transducer or, in special cases, a dial gauge.

The cell can be of different shapes (square, circular, rectangular) and dimensions (\varnothing 100, 200, 300 mm and more) according to requirements.

The tube taking the fluid to the sensor may, as well, be of variable length.

The pressure cell can be installed either be-

tween a structure and the underlying surface or inserted within the earthworks in the most effective manner.

An electrical cable carries the signal to the data reading point in an appropriate unit of measurement.

The measurement can be read locally using a hand-held reader or remotely using AGISCO equipment via a modem.

There are other models of hydraulic load cells which use plastic and rubber material according requirement.

Some are given a protective coating to resist erosion by chemical agents.

These soft walled cells are particularly useful for measuring the loading of landfill sites because they do not require a solid base to be built from.

TECHNICAL SPECIFICATIONS

HYDRAULIC PRESSURE CELL

Type of sensor	Pressure transducer
Shape/Dimension/Weight	Square: 150x150, 100x200, 200x400 Circular $\varnothing = 200, 300, 500$ 0,3 ÷ 8 kg
Measurement range	2, 5, 10, 50, 100 bar
Overload	50% F.S.
Resolution	0,01 % FS
Linearity	1% F.S.
Supply	8-35 Vdc
Output	4-20 mA/Vdc
Level of protection	IP69
Material	Steel/Stainless steel AISI 304
Operating temperature range	-10 ÷ +80 °C

Agisco reserve the right to change their products and specifications without notice

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