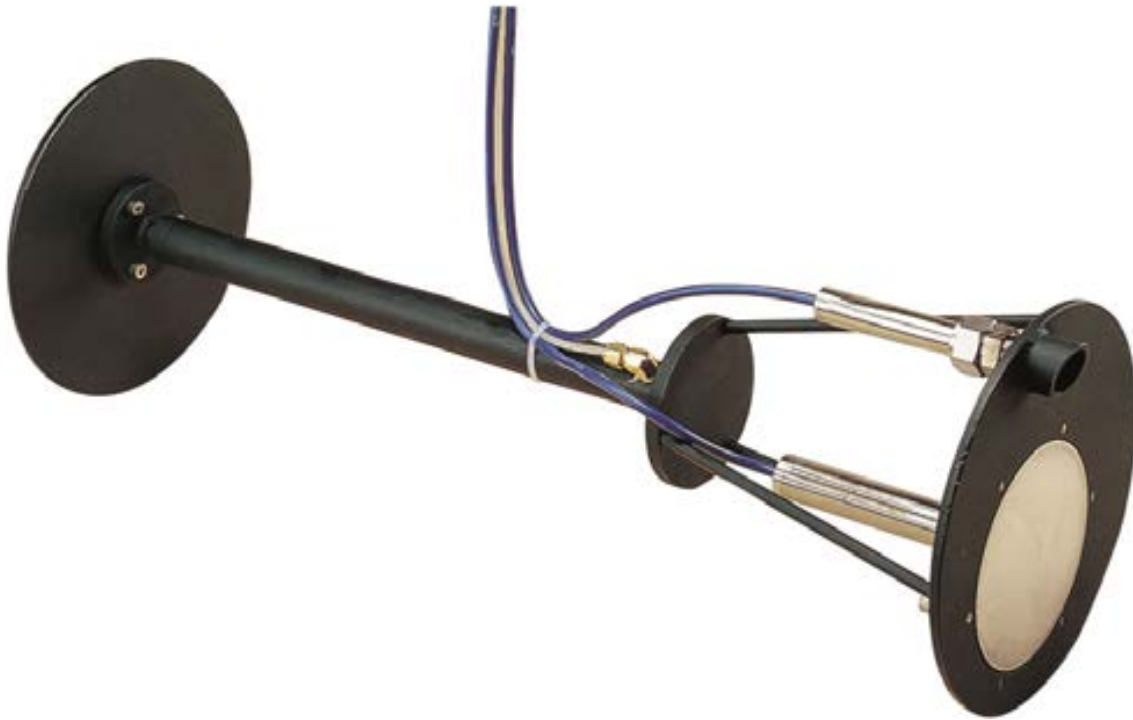


Jackout Pressure Cell VWJPC-4500

Jackout Pressure Cells are used to measure active and passive pressures on diaphragm walls during excavation



Jackout Pressure Cell VWJPC-4500



Overview



APPLICATIONS

Measurement and control of contact pressures on diaphragm walls

Verifying design assumptions, assuring soil pressures are not larger than those the structure was designed to withstand

FEATURES

High accuracy

Long-term stability

Robust construction

High height to diameter ratio

VW or strain gauge readout

Suitable for remote reading and data logging

Geosense VWJPC-4500 Jackout Pressure Cells are used to measure active and passive pressures on diaphragm walls during excavation. They are installed within the diaphragm wall cage to monitor pressure on the walls. Any build-up of excessive pressure can be detected in time for remedial measures to be carried out.

The Pressure Cell itself is constructed of two circular, stainless steel plates welded around their periphery. The space between the two plates is filled with an incompressible fluid. A transducer is connected to this space and measures the pressure exerted on the incompressible fluid. The cell is mounted onto one end of a double acting hydraulic ram via a swivel joint and at the other end is a reaction plate the same diameter as the cell.

The ram and cell assembly is installed into the reinforcement cage with the cell and reaction plate positioned either side of the cage with the ram passing through the reinforcement. It is loosely supported in the cage by tie wires or a prefabricated cradle.

After the reinforcement cage is lowered into the trench the hydraulic jack is hydraulically pressurised forcing the earth pressure cell and reaction plate against the sides of the trench. The hydraulic pressure is increased to ensure good embedment into the trench wall. The ram pressure is maintained throughout the pouring and curing of the concrete.

A vibrating wire piezometer can also be incorporated to measure pore water pressure.



Jackout Pressure Cell VWJPC-4500

Specifications

VWJPC-4500

Pressure range	3350, 700kPa; 1, 2, 3, 5 MPa
Over range	150%
Signal output	2000 - 3500 Hz
Resolution	± 0.025%
Accuracy ¹	± 0.1% FS
Linearity	<0.5% FS
Outer diameter	165, 245, 320mm
Active diameter	150, 230, 305mm
Thickness	12.5mm
Cell material	Stainless steel
Operating temp	-20°C to +80°C

¹ Calibrated accuracy of pressure sensor

ORDERING INFORMATION

Pressure range
Diameter
Sensor type
Cable length
Readout



Geosense Ltd, Nova House, Rougham Industrial Estate, Rougham, Bury St Edmunds, Suffolk IP30 9ND, England

www.geosense.co.uk e sales@geosense.co.uk t +44(0)1359 270457

Specifications are subject to change without notice and should not be construed as a commitment by Geosense. Geosense assumes no responsibility for any errors that may appear in this document. In no event shall Geosense be liable for incidental or consequential damages arising from the use of this document or the systems described in this document. All Content published or distributed by Geosense is made available for the purposes of general information. You are not permitted to publish our content or make any commercial use of our content without our express written consent. This material or any portion of this material may not be reproduced, duplicated, copied, sold, resold, edited, or modified without our express written consent.

V1.3 06/2023