

Stress Monitoring System SMS-01

Earthquake monitoring



Description

The Fos&s stress monitoring system SMS-01 consists of several load cells (oil pads) which are positioned in different angles pertaining to each other.

Features

The stress monitoring system can measure load levels and temperature with a resolution of 0,05% Full Scale and 0,04 °C respectively and an accuracy of 1% Full Scale and 0,4 °C respectively. The load level can be chosen between 1 and 150 bar.

Applications

The stress monitoring system consists of different Load Cells which can be permanently installed in bore holes to measure absolute stresses and stress changes in ground or rock and this in different directions.

Standard specifications

Parameter	Unit	Value
Number of load cells		Maximum 4
Load range	bar	1 - 150
Load Resolution	bar	0,05% FS
Load accuracy	bar	1% FS
Temperature resolution	°C	0,1
Temperature accuracy	°C	1
Temperature range ¹	°C	0 to 85
FBG central wavelength	nm	1530 to 1570 nm
Connector type	-	FC/PC, FC/APC

¹ Extended temperature range possible on request

FOS&S

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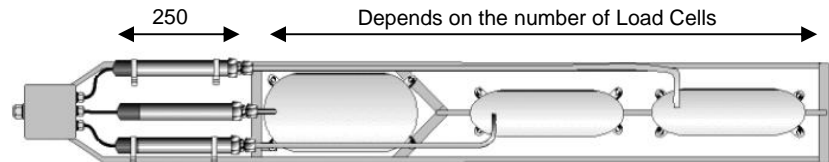
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Technical Drawing (in mm)

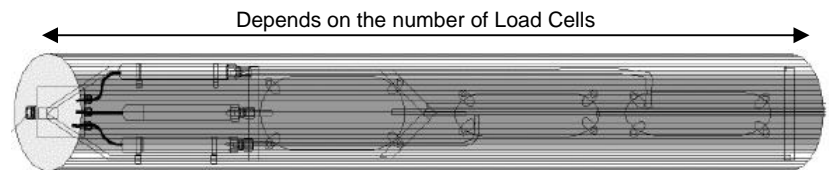
Soft Inclusion

Installation of the stress monitoring system into soft rock such as shale or clay.



Hard Inclusion

Installation of the stress monitoring system in hard rock the preferred method would be to prepare a hard inclusion.



Note: Other designs and setups are available upon request

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Note: The reported resolution and accuracy values assume the use of a measurement unit with a resolution better than 1 pm and a relative wavelength accuracy better than 10 pm.

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