

Profound IS – Geotechnical Monitoring System

Profound IS-system

geotechnical precision monitoring

Applications of the IS-system I

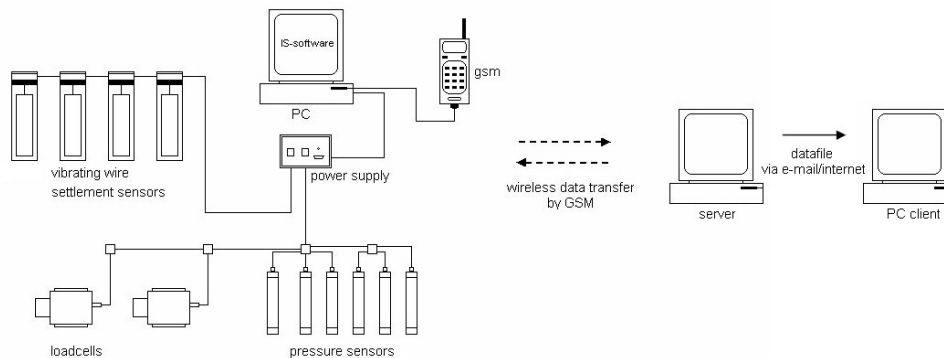
An IS-system is an effective tool for precision monitoring in the geotechnical field. Real-time measuring data on your PC enable you to closely follow your project wherever you are.

Typical applications include monitoring of settlements, and pore pressures, as well as load monitoring and strain measurements. Different measurements can easily be combined in one network, as each sensor (e.g. load, strain, pressure sensor) has been equipped with the 'Intelligent Sensor' (IS)-technology.

The IS-system is a fully digital monitoring network of Intelligent Sensors, connected to a single computer. Just one network cable interconnects up to 100 sensors with the central network computer whereby the distance between the sensors can be hundreds of meters.

If you equip the IS-network with a GSM-connection, you will also be able to view the measuring data remotely at any moment. You can quickly and easily process, export or graphically display the measurement results on a Windows PC. As shown below, you can customize the IS-system to your own needs.

I: IS-network (with a local network PC)



This network consists of:

- 6 IS-pressure sensors
- 2 IS-load cells
- 4 IS-liquid leveling settlement sensors
- 1 IS-power supply
- 1 Windows PC with ISN-software
- 1 GSM

The sensors are interconnected by one 4-core network cable. After start-up the network PC automatically detects the sensors attached to the network and the sensors will start measuring at the time intervals set by the user. The measurement results are sent to the local network PC where you can directly view them in real-time. As the network has been equipped with a *GSM-link*, you can retrieve the data from your office PC at any time.



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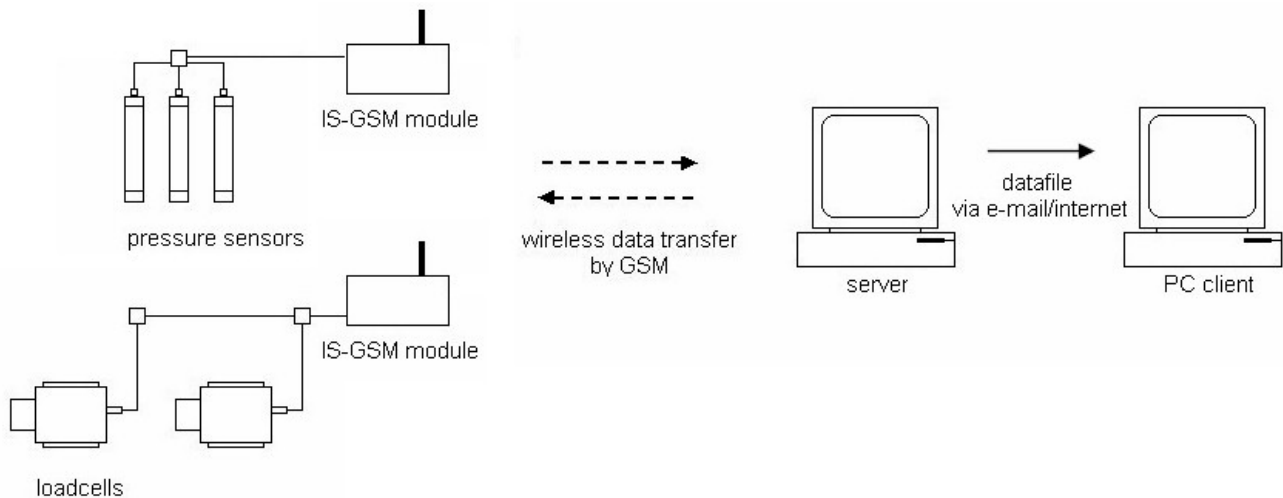
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Applications of the IS-system II

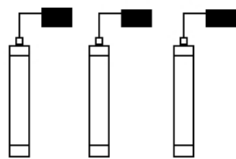
II: IS-network (with IS-GSM module)



An alternative to a local network PC is the battery powered IS-GSM module. Depending on the sensor type, up to 5 sensors can be connected to this module enabling you to have an IS-network in the field without a separate power supply. With an IS-GSM module measurement data can also be sent to a remote server. However, the latter option is not yet available in North America

III: IS-system (stand-alone option)

IS-data loggers
(stand-alone option)



IS-pressure sensors

IS-sensors can also function stand-alone, if they are equipped with an IS-battery holder. The sensors will start measuring at the time intervals set by the user, and the collected data will be stored in the data logger, which is a standard part of each sensor.

With a Windows laptop and an IS-RS232 converter or with an IS-field unit you can then periodically download the measurement data from the sensor.



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