

# Profound IS – Geotechnical Monitoring System

## IS-system

*Intelligent Sensor system:  
A new standard in geotechnical monitoring*

### General description

Imagine: A network with up to 100 sensors (measurement points) interconnected with just one cable. Via a mobile phone connection you can get the measurement results wherever you are, enabling you to closely follow your project. Impossible? With the fully digital Profound IS-system (IS = Intelligent Sensor) you can actually monitor your project remotely.

### Simple

The IS-system is flexible so it can meet the requirements of every project. Installation and expansion of an IS-system are simple: just one network cable interconnects the 'Intelligent Sensors' and the network computer, whereby the distance between measurement points can be hundreds of feet.



### Ultramodern

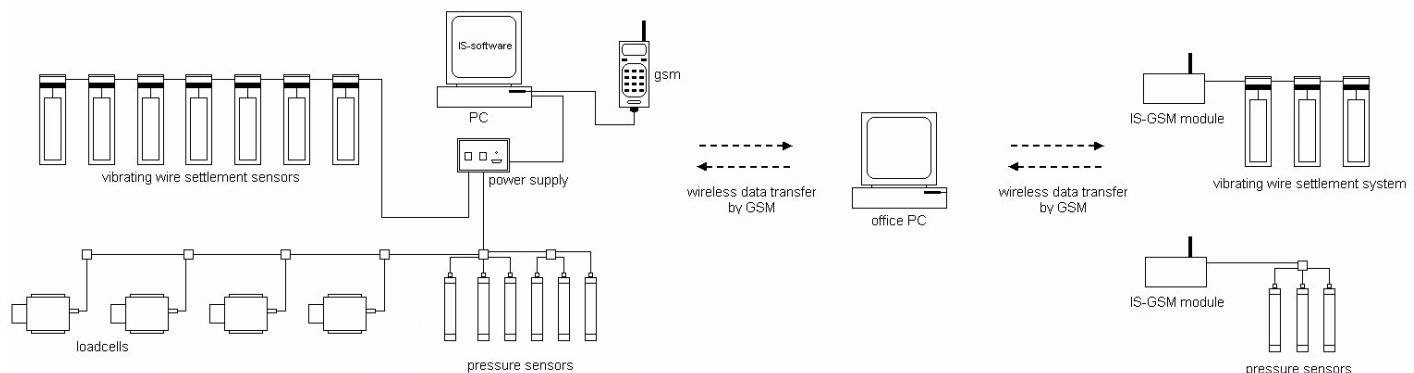
After starting up the system, the network PC automatically detects the sensors connected to the network and these sensors will start measuring at preset intervals. The measurements are sent to the network PC where you can view them in real time. If you equip the IS-network with a GSM-connection, you can also view the data at any place at any time.

### Flexible

You can quickly and easily process, export and graphically present the measurements on your Windows PC.

### Efficient

Without having to use difficult conversion factors, every 'Intelligent Sensor' immediately gives the measured values in the correct unit. The sensors can also carry out simple data processing, like calculating the minimum, maximum and average measured value.



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## Stand-alone

Every IS-sensor is equipped with a data logger so it can be used not only as part of an IS-network, but can also stand-alone. With a Windows PC and an IS-RS232 converter you can easily program the sensor and read out data later on. An advanced alternative is the IS-field unit: a compact and robust hand-held computer.

## Reliable

All relevant parameters, like sensor type, calibration and scale factors can be stored in the memory of the IS-sensor. You only have to set the measuring frequency in the network PC and the PC will collect the measurements accordingly.

## Cost-effective

The IS-system combines existing, economical techniques (like GSM and standard cable work) with advanced network technology. Other advantages are the fast, simple installation, the digital administration, and the minimal time and effort necessary to frequently read so many sensors.

## Technical specifications

Network protocol:	CAN-protocol (Control Area Network)
Maximum cable length:	approx. 2,500 meters (8,200 ft)
4-wire cable system:	Wire 1: 15 volt (max. 18 volt) not stabilized Wire 2: 0 (mass) Wire 3: digital (CAN differential) Wire 4: digital, inverse of wire 3 (CAN differential)
Max. number of sensors:	100 (depending on cable length and sensor type)
Sensor types:	Groundwater level sensors to be used in standpipes Inclinometers Load sensors Potentiometers Pore pressure sensors, e.g. the BAT-system Pressure sensors Vibrating wire sensors Liquid Leveling system
Accessories:	IS-PC Power supply IS-battery holder IS-field unit IS-RS232 converter IS-data logger software IS-network software IS-process software IS-GSM module



*IS-liquid leveling sensor*



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