MORE INSIGHT INTO YOUR INFRASTRUCTURE

Real-Time insight into movements, changes, settlement and repairs of infrastructural objects



www.infrasensorsolutions.com



THE NUMBERS TELL THE TALE

Today, fibre optic technology offers unprecedented opportunities to collect data and valuable information, to rapidly transport it and to even access it remotely in real time. Increasingly more sectors use the fibre optic infrastructure, with the result that the need for information grows.

The management and maintenance of infrastructural objects consumes vast amounts of money annually, mostly on preventive measures. Great savings can be realised by measuring the need for maintenance. Regular measuring can accurately determine component wear. This makes it possible to predict the moment of required maintenance, which considerably increases efficiency.

It means in many cases that a repair or replacement can be more efficiently planned, which can realise considerably cost reductions.

When infrastructural objects are built, they are often over dimensioned. By gaining experience with the data that become available from the measurement results, it might be possible to use fewer or different materials during the realisation of the objects. This could mean a significant cost saving during the realisation phase.

Infra Sensor Solutions offers you:

V Real-Time information	V Long distances can easily be bridged
Accuracy to the micrometre	Online monitoring
Vo electromagnetic interference	Remote access to your information
No interference with external sources	Alarm when thresholds are exceeded
No power supply required at the measurement location	No resources required at the measurement location

What can you expect from us?

Service provision You need have no concerns about the equipment that is employed, nor does hardware need to appear on the balance sheet. Infra Sensor Solutions guarantees a certain level of availability of information in advance. We supply, in real time, the data or information you request, and by doing so remove all concerns about your infrastructural objects.

WELCOME,

The dynamic intensity of the number of road and transport movements is rapidly increasing.

The numbers, the weights and the dynamic speeds all influence the wear and tear on the infrastructure. The design parameters of civil engineering structures, roads and railway objects will change along with these developments.



To keep the infrastructure up-todate, we see that there is a pressing need to obtain measurement data regarding the behaviour of infrastructural objects in these changing circumstances.

The reliability, accuracy and the real-time availability of measurement data are essential and demand different capabilities than the conventional copperbased measurement methods. At the same time, we see a growing need to get a picture of the predictability of maintenance and repairs. We established Infra Sensor Solutions to meet this need

The service we provide stands out due to the commitment and a focus on the content of the agreement made. Our motto is: an agreement is an agreement.

I look forward to meeting you personally so that together we can inventory your needs and define the opportunities, and by doing so, give you the prospect of a carefree future.



John van Steen

Infra Sensor Solutions: your partner for the future; measurement data using fibre optic technology New

Prinsenbeek, 13 April 2012 - Infra Sensor Solutions NBG Holding, Ostara Communications and BAM Infratechniek saw the official start of their joint venture on 12 April 2012 in Prinsenbeek.

The starting ceremony was held in the presence of Mr P.A.C.M. van der Velden, Mayor of Breda. Infra Sensor Solutions focuses on supplying measurement data, obtained through monitoring infrastructural installations (civil engineering structures, roads, railways, dykes, Weigh-In-Motion, etc.) using state-of-the-art fibre optic (measurement) technology. This is an innovative measurement method when compared to traditional geodetic surveying. Using these techniques, we can make remote, extremely accurate, online measurements of movements, changes and sounds (at the micrometre level). The information can be directly read remotely, without the need of a power supply or people at the measurement location. This measurement technology makes it possible to gain detailed insight into the measured objects. In part due to the explosive growth in the number of fibre optic links, applications that can use this technology have come within reach of ever more market sectors.

Because the measurement data are continually available, models can be created that can predict when maintenance is required, which can result in an enormous reduction in maintenance costs.

During the creation of new infrastructural objects, this measurement technology can be easily installed, which guarantees insight into the behaviour of these objects in the long term. Infra Sensor Solutions has extensive specialist knowledge and guarantees high-quality service.

We currently operate in the Benelux, England and Germany.

INFRA SENSOR SOLUTIONS))	S CONVENTIONAL MEASUREMENT
Real-Time information	Periodic information
Insensitive to failure	Subject to failure
Proven accuracy down to the micrometre	Accurate if there is no interference
No power supply required at the measurement location	Power supply required at the measurement location
No interference from other sources	Interference from other sources easily possible
Central measuring equipment up to 50 km from the measured object	Central measuring equipment within 100 metres of the measured object
Online monitoring means no need to be on site	People must be present on site to read results
Alarm generation when thresholds are exceeded (online)	Thresholds can be exceeded periodically
Remotely controllable through a TCP/IP link	Difficult remote access







Real-Time information

The measurement information can be obtained in real time from the central measurement unit. This is unique and of great value. Based on a standard TCP/IP link, it is possible to log in to the central measurement unit from a great distance, allowing you to consult the information in real time on your smartphone or tablet.





Accuracy

Due to the development of optical measurement equipment, it is possible to achieve an accuracy of micrometres. This accuracy is necessary to record the smallest changes including vibrations, cracking and expansion. The Infra Sensor Solutions interrogator is designed to handle this.





Cost savings

The collected information makes it possible to make periodic and incidental maintenance predictable. The acquired information can make material use more efficient. This results in substantial cost savings.







Safety

Permanently monitoring the condition of infrastructural objects makes it easy to guarantee safety. Moreover, if the threshold parameters set in advance are exceeded, rapid action can be taken in the event of incidents or potentially unsafe situations.





No interference

Because the method is based on fibre optic technology, the signal is not distorted by external interference, which is often the case with conventional measurement techniques. In this respect, consider magnetic fields, sound sources, et cetera.





Access to the measurement locations

After installing the sensors, the location does not need to be visited. The information can simply be read via the internet. Moreover, large distances can be bridged using fibre optics. Because no power supply is required at the measurement location, we can be enormously flexible. Our solutions can be easily installed at the most remote locations. We would be pleased to discuss the possibilities offered by our fibre optic (measurement) techniques and solutions

seeing = believing

Please ask us for a demonstration

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