

## Components of the system



### Description of the Diver-NETZ components

- 1. Diver-Suite.** Achieve precise measurements of groundwater levels, temperature, and conductivity with Diver® dataloggers. The Mini-Diver, Cera-Diver, Micro-Diver, CTD-Diver, and Baro-Diver are industry recognized, offering reliability and accuracy.
- 2. Diver-DXT® (art. no.: 11.11.50.00.01).** The Diver-DXT makes the wireless communication possible. The water resistant housing contains a barometer for the logging of local barometric pressure. The Diver-DXT housing can be mounted on top of a 1 inch diameter well.
- 3. MDC cable (art. no.: 11.11.50.01 t/m 11.11.53.00).** The **Modular Diver Cable** is mounted into the Diver-DXT housing using a heavy duty, water tight connector that allows you to adjust the cable length as needed.
- 4. Diver-Gate (M) (art.no.: 11.11.50.00.05).** The portable Diver-Gate(M) provides the communication between the Diver-DXT and the smart phone device via a blue tooth connection.
- 5. Diver-Mobile (art.no.: 11.11.50.00.06).** Diver-Mobile is a user-friendly smart phone application that allows you to remotely connect to deployed Divers, collect Diver data and transfer data to the office via cellular network.
- 6. Diver-Office (art. no. 11.11.14) and Diver-Office Premium (art. no. 11.11.14.01).** Easy-to-use desktop software for managing, analyzing and qualifying collected Diver data on the PC.

# Diver-NETZ

## Diver-NETZ wireless system for efficient groundwater monitoring

Would you like to be able to collect groundwater data faster and more efficiently? Would you like to be able to safely access monitoring data in hard-to-reach locations?

Diver-NETZ® from *Schlumberger Water Services (SWS)* is a complete system of first class technologies that combines highly accurate datalogger measuring devices with the latest developments in the field of wireless communication and data collection. The various components have been designed to streamline project workflows to enable you to manage and maintain your groundwater monitoring networks more efficiently and effectively.

Since the launch of the original Diver-NETZ in 2007 significant improvements have been made to the system. From the technology selection to its deployment in the field, the new and improved Diver-NETZ provides:

- Improved wireless communication over longer distances.
- 360-degree homogenous radiation pattern.
- Improved battery life of 5 years (depending on intensity of use).
- A barometric datalogger is included in each DXT .
- Customizable cable lengths.

**Diver-NETZ**®  
wireless groundwater monitoring



All it takes for environmental research



## Key benefits

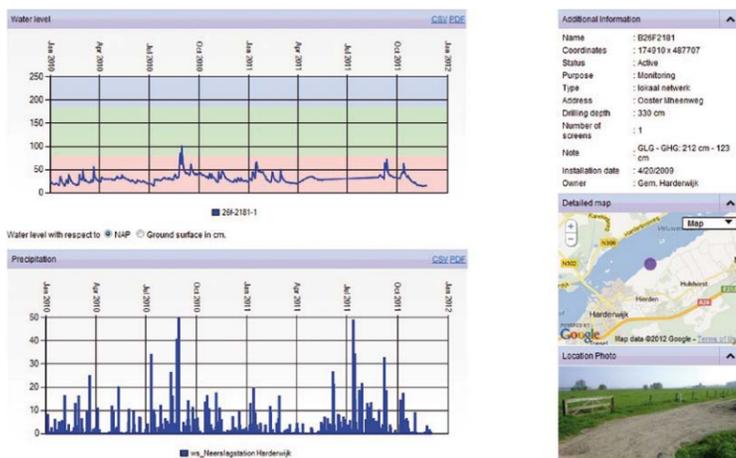
- Water resistant housing.
- Gain access to data in hard-to-reach places easily and safely.
- Collect and transfer field data to the office faster, more efficiently.
- Achieve precise, reliable measurements of groundwater levels, temperature and conductivity.
- Simple, easy to use allowing virtually anyone to collect groundwater monitoring data.

## Key features

- Fully compatible with all existing Diver dataloggers delivered since 2006.
- 5-year battery life (depending on intensity of use).
- Simple and easy to install in wells of at least 1 inch in diameter.
- Multi-directional antenna allowing for a communication range of 500 m. LOS (Line of Sight), depending on weather conditions and obstacles.

## Wireless communication in a few steps

- Select the right Diver for your application.
- Deploy the Diver, MDC-cable and Diver-DXT in the well.
- As soon as the complete system is installed, the data can be downloaded from a distance using Diver-Gate(M), Diver-Mobile, Diver-Pocket-Premium and your smartphone or field pc.
- Back in the office, you will be able to bring value to your data set using Diver-Office or Diver-Office-Premium.



## Pilot projects

In 2011 a number of projects in different environments and in different countries were started to test the overall performance of the system and receive feedback from users. The projects have proven that products are performing according the specifications, showing that customers all over the world were able to mount and use the system with just a little support and training.

The pilot projects have been deployed in the heat of the desert in Qatar, the tropical conditions of Florida, the cold of Canada and the mountains in Chili. There were also three pilot projects in the Netherlands, two within communities (flush mounted wells) and one in a rural area with animal activities and changes of flooding.

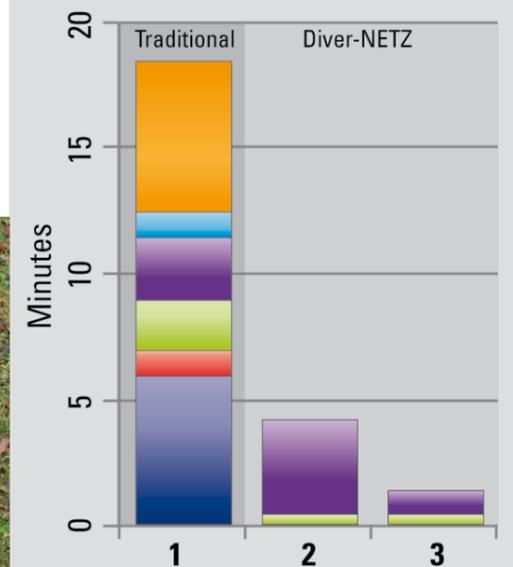
### Experiences municipality Den Helder

"Because of the combination of the Diver-DXT and the Diver-Gate(M) wireless communication system we were able to decrease the time used for our monitoring activities. The total system gives us the required data in a fast way, minimizing the chances of errors during downloading or acquiring the data. The system has also proven to be reliable and has surpassed our expectations."



## Diver-NETZ 85% more efficient than traditional data readout\*

- Walking from the car to a monitoring point
- Opening the lock and well cover
- Connecting with the Diver
- Downloading the Diver data
- Closing the well cover and lock
- Walking back to the car



- Traditional read out (DDC cable)
- Read out DXT
- Read out DXT (last data)

\* Reading out of a Diver and Baro-Diver / DXT baro after 1 year with a measurement frequency of once per hour. With the last data option of Diver-NETZ only the last data is read out. In this way, the user receives only data which is not collected before.