

Wireless Groundwater & Surface Water Data Transmission

Maximize data quality Reduce operating costs Near real-time insight

# Diver-NETZ

### Introduction

Diver-NETZ is a complete wireless system for managing groundwater monitoring networks, that combines reliable and accurate Diver dataloggers with the latest developments in wireless communication and data collection technology. The various components of Diver-NETZ are designed to streamline workflows enabling effective and efficient management of groundwater and surface water monitoring networks.

### Diver Dataloggers and Diver-DXT

Diver-NETZ consists of cost-effective, compact and reliable Diver\* groundwater dataloggers, for monitoring water level, temperature and electrical conductivity. A data cable connects the Diver to a Diver-DXT which is mounted at the top of the well. The Diver-DXT is a battery powered radio device that wirelessly transmits data. A built-in barometric datalogger is used to convert pressure data into accurate groundwater levels.

configurations. Diver-NETZ Mobile requires a field technician to go out into the field to wirelessly collect data. With Diver-NETZ Static, groundwater data is sent automatically to the office.

There are two types of Diver-NETZ

### **Benefits of Diver-NETZ**

### Maximize data quality:

Diver-NETZ increases the quality of your data by providing continuous insight into equipment status and water levels.

### **Reduce operating costs:**

Diver-NETZ saves time and money by reducing manpower and the number of field visits for data collection.

### Near real-time insight:

Diver-NETZ delivers turn-key intelligence to your desktop in near real-time.

# 1. Measure

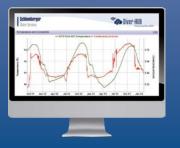
CONTROL

3 STEPS

2. Transmit



3. Analyze



### **Diver-Gate**

The Diver-Gate is a low-power device that communicates wirelessly with the Diver-DXT to retrieve the data from the Diver dataloggers. Collected data is then transferred automatically to your mobile device or directly to the office.

### Diver Software

Diver-NETZ data can be easily imported and analyzed using Diver-Office and Diver-Office Premium software, or visualized from anywhere in the world using the Diver-Hub secure online portal.

# Diver-NETZ Mobile 🕒

Wireless data collection in the field



Wireless data transmission Low energy consumption Simple installation Workflow automation

### **Overview**

Diver-NETZ Mobile allows groundwater professionals to wirelessly collect groundwater data in the field.

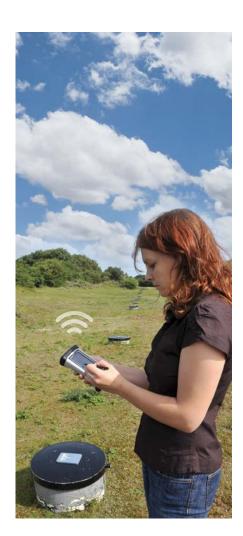
A field technician carries a portable Diver-Gate and a mobile device to the well site. When the field technician is within radio range of one or more Diver-DXTs, the Diver data is collected wirelessly by the Diver-Gate which then relays the data to your mobile device or laptop. Collected data can then be transferred to the office where it can then be validated and analyzed using desktop software.

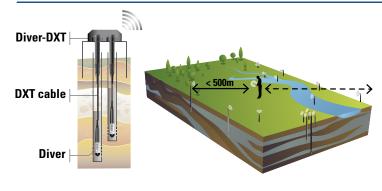
### **System Components**

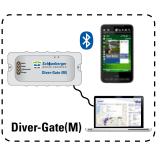
- · Diver dataloggers
- Diver-DXT and DXT cable
- Diver-Gate(M)
- Diver-Mobile
- Diver-Office/Diver-Office Premium

### **Features & Benefits**

- Improve efficiency by up to 85% and reduce labor costs by collecting field data wirelessly from multiple wells
- Achieve accurate measurements of groundwater levels, temperature and conductivity with accurate and reliable Diver dataloggers
- Safely collect data wirelessly in areas where wildlife or environmental hazards may pose a safety risk
- Deploy effortlessly in virtually any environment and in most monitoring wells
- Simplify project workflows by automatically processing monitoring data
- Manage, analyze, visualize, and report your monitoring data using user-friendly desktop software and/or a secure online portal









**Diver Software** 

# Diver-NETZ Static \*\*

### Wireless data collection from field to office











**AUTOMATE** WORKFLOW

### **Overview**

**Diver-NETZ Static allows wireless** data collection directly from the field to the office. A Diver-Gate is placed permanently in the field within radio range of one or more Diver-DXTs. At a scheduled interval the Diver-Gate will wirelessly connect to nearby Diver-DXT devices and collect the data. Through a GSM/GPRS connection this data is directly forwarded to a server and can be immediately visualized in your internet browser using the interactive Diver-Hub online portal. Data can be further interpreted and analyzed using Diver-Office and Diver-Office Premium software.

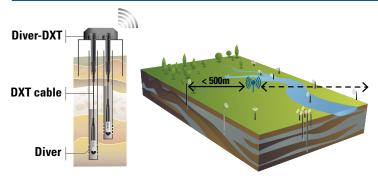
### **System Components**

- · Diver dataloggers
- · Diver-DXT and DXT-cable
- Diver-Gate(S)
- · Diver-Hub online portal

### **Features & Benefits**

- Gain near real-time insight into equipment status and groundwater conditions for proactive groundwater resource management
- · Realize costs savings for high density monitoring networks by deploying a single gateway for multiple monitoring points
- · Achieve accurate measurements of groundwater levels, temperature and conductivity with accurate and reliable Diver dataloggers
- · Safely collect data wirelessly in areas where wildlife or environmental hazards may pose a safety risk
- Deploy effortlessly in virtually any environment and in most monitoring wells
- Simplify project workflows by automatically processing monitoring data
- · Manage, analyze, visualize, and report your monitoring data using user-friendly desktop software and/or a secure online portal





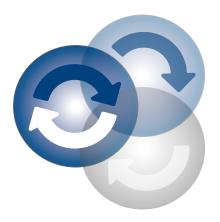




**Diver Software** 

# Diver-DCX

### **SDI-12 Interface for Diver Dataloggers**



### CONNECT YOUR DIVER

### Schlumberger Water Services also offers integration of Diver dataloggers to third-party telemetry systems

### **Overview**

Diver Direct Communication eXchanger (Diver-DCX) is specifically engineered to integrate Divers into any SDI-12 compatible telemetry system.

The SDI-12 standard was developed to interface dataloggers with smart sensors for environmental data acquisition, and is used globally for applications in water resource management, industry, mining, and research. Diver-DCX extends the communication format of Divers to any SDI-12 compatible telemetry system, enabling real-time digital transmission of water level and water quality data.

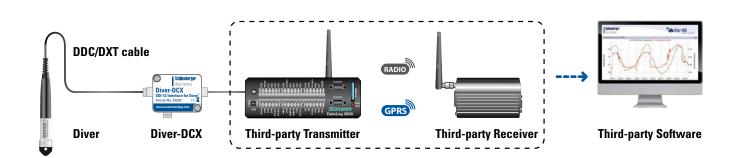
### **System Components**

- Diver dataloggers
- Data cable
- SDI-12 compatible telemetry system

### **Features & Benefits**

- Built-in pressure sensor provides barometric compensation of water levels collected by the Diver, which reduces the need for post-processing
- Robust compact housing and pressure vent, made from industrystandard GORE-TEX®, offer a durable water resistant barrier to the internal electrical components, resulting in reliable operation
- Power is supplied by an external source (no internal battery is required), this allows the compact Diver-DCX to be mounted inside the well casing, translating to long-term, uninterrupted use
- Expands Diver monitoring networks to telemetry systems, offering "real-time" monitoring
- Provides built-in barometric compensated water levels; no post-processing required
- No internal power source required, allowing for flexible installation options











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