

Micro-Diver DATA SHEET

Water Level and Temperature Measurement with Internal Data Logger



Description

The Schlumberger Micro-Diver provides reliable automatic measurement and registration of groundwater level and temperature data. Measuring a slim 0.7 inches (18 mm) in diameter and 90 mm in length, it is the smallest groundwater level sensor in its class, and a great choice for monitoring wells that are too small to accommodate larger sensors.

The Micro-Diver is available in four ranges for monitoring the following depths:

- 0 - 33 ft (0 - 10 m)
- 0 - 66 ft (0 - 20 m)
- 0 - 164 ft (0 - 50 m)
- 0 - 328 ft (0 - 100 m)

The Micro-Diver has an outstanding internal memory capable of storing 48,000 measurements per parameter. This is sufficient memory to perform one measurement every ten minutes for an entire year.

With its range of measuring functions, the Micro-Diver can be used for fixed, event-dependent, and also pump test measurements.

In addition to internal data storage, the Micro-Diver can be connected to an external data logger, such as the Stevens DataLog_c 3000, or data telemetry systems with the Diver-DCX SDI-12 output adapter, allowing the Diver to be used for real-time data monitoring applications.

Manual data download in the field from a Diver's internal storage can be done by utilizing the optional USB Interface Cable and connecting the diver directly to a desktop or laptop PC.

Features

- Long-term and frequent measurements
- Temperature corrected measurement
- Compact size for small wells
- Non-volatile memory
- Compact size
- Hermetically sealed in stainless steel housing
- Built-in data logger for storing up to 5 million measurements
- Optional SDI-12 adapter for connection to data logger or radio/modem
- Battery powered for long-term, unattended operation
- Maintenance free
- 3 year warranty

Applications

- Pumping and slug tests
- Watershed, drainage basin and recharge areas
- Stream gauging, lake levels and reservoirs
- Harbour and tidal fluctuation monitoring
- Wetlands and stormwater run-off monitoring
- Long term water level monitoring
- All intensive monitoring of groundwater levels
- Groundwater monitoring projects
- Groundwater monitoring network automation

www.stevenswater.com

1.800.452.5272

Stevens
Water Monitoring Systems, Inc.

Technical Specifications

Power Requirements

Battery powered with the capacity to perform:

- 5 million measurements;
- 2,000 readout cycles;
- 2,000 programming cycles.

The maximum lifespan for the Diver battery is 10 years of “typical” use, excluding extreme temperature situations or excessively fast measurements that may prematurely drain the battery.

Sample Interval

0.5 seconds to 99 hours

Output Options

- SDI-12 output when connected to Diver-DCX converter box.
- Manual data download using USB interface cable connected to computer.

Operating Temperature, Compensated

32 °F to 122 °F (0 °C to 50 °C)

Temperature Accuracy

± 0.2 °C

Temperature Resolution

0.018 °F

Physical Size (Length x Diameter)

3.54 in x Ø0.71 in
(90 mm x Ø18 mm)
incl. suspension eye

Wetted Parts Materials

Housing: stainless steel (316L)
O-rings: Viton ®
Pressure Sensor: ceramic (Al₂O₃)
Cap/nose cone: Nylon PA6 30% glass fiber

Weight

2.46 oz (70 grams)

Depth Range	Typical Accuracy	Long-Term Stability	Resolution
33 ft (10 m)	± 0.1% FS	± 0.2% FS	0.07 in (0.2 cm)
66 ft (20 m)	± 0.1% FS	± 0.2% FS	0.15 in (0.4 cm)
164 ft (50 m)	± 0.1% FS	± 0.2% FS	0.39 in (1 cm)
328 ft (100 m)	± 0.1% FS	± 0.2% FS	0.78 in (2 cm)

Diver Accessory Items

All Schlumberger Divers are sold as self-contained units, as every diver is equipped with internal memory and battery power and can be deployed as-is. Stevens Water offers a full line of cables and data download accessories to facilitate the easy transfer of data to data loggers, telemetry communication systems, or field computers.

Optional Cables: Diver Data Cables allow any Diver unit to be deployed down a well, bore hole, or any other location, while giving the end-user the ability to configure or download data from the Diver without removing it.

SDI-12 Diver-DCX Output Adapter: Connects to any Diver, giving the sensor the ability to output readings in standard SDI-12 format, for communication with a data logger or telemetry device.

USB Interface Cable: Connects to the end of the Diver Data Cable, allowing for data download via connection to any computer with a USB Port, using Diver Office software.

Diver Mate: This small handheld storage device connects to any Diver or Diver Data Cable, and automatically downloads stored readings to onboard memory for later analysis.

Diver USB Reading Unit: A small USB-powered cradle that allows the connection a Diver (without cable) to a PC for data download or configuration.

Corporate Headquarters

12067 NE Glenn Widing Drive
Suite 106
Portland, Oregon 97220

800.452.5272 Tel
503.445.8000
503.445.8001 Fax
info@stevenswater.com
www.stevenswater.com

Since 1911, Stevens Water Monitoring Systems, Inc. has provided complete water monitoring solutions including:

- Water Level Sensors
- Water Quality Sensors
- Soil Moisture Sensors
- Chart Recorders
- Staff Gages
- Telemetry Systems
- Data Collection Platforms

Micro-Diver DATA SHEET

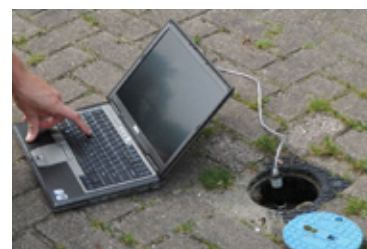
Ordering Information

Part #	Divers and Accessories
51144-601	Schlumberger Micro-Diver, 33 ft (10 m) range
51144-602	Schlumberger Micro-Diver, 66 ft (20 m) range
51144-605	Schlumberger Micro-Diver, 164 ft (50 m) range
51144-610	Schlumberger Micro-Diver, 328 ft (100 m) range
51144-337	SDI-12 Diver-DCX Output Adapter
51144-327	USB Interface Cable, for manual data download from Diver
51144-420	Diver Mate hand-held data download and storage drive
51144-330	Diver USB Reading Unit, for Diver units without cable

Part #	Optional Cables
51152-6001	Diver Data Cable - 3.28 ft (1 m)
51152-6005	Diver Data Cable - 16.4 ft (5 m)
51152-6010	Diver Data Cable - 32.8 ft (10 m)
51152-6015	Diver Data Cable - 49.21 ft (15 m)
51152-6020	Diver Data Cable - 65.61 ft (20 m)
51152-6030	Diver Data Cable - 98.42 ft (30 m)
51152-6040	Diver Data Cable - 131.23 ft (40 m)
51152-6050	Diver Data Cable - 164.04 ft (50 m)
51152-6060	Diver Data Cable - 196.85 ft (60 m)
51152-6080	Diver Data Cable - 262.46 ft (80 m)
51152-6100	Diver Data Cable - 328.08 ft (100 m)



SDI-12 Diver DCX Adapter
attached to Stevens DL3000 logger



USB Interface Cable
attached to Diver Data Cable from laptop computer



Diver USB Reading Unit
shown attached to laptop



Diver Mate
hand-held data download and storage drive