

# Water Quality Monitoring

Multi-Parameter Probes

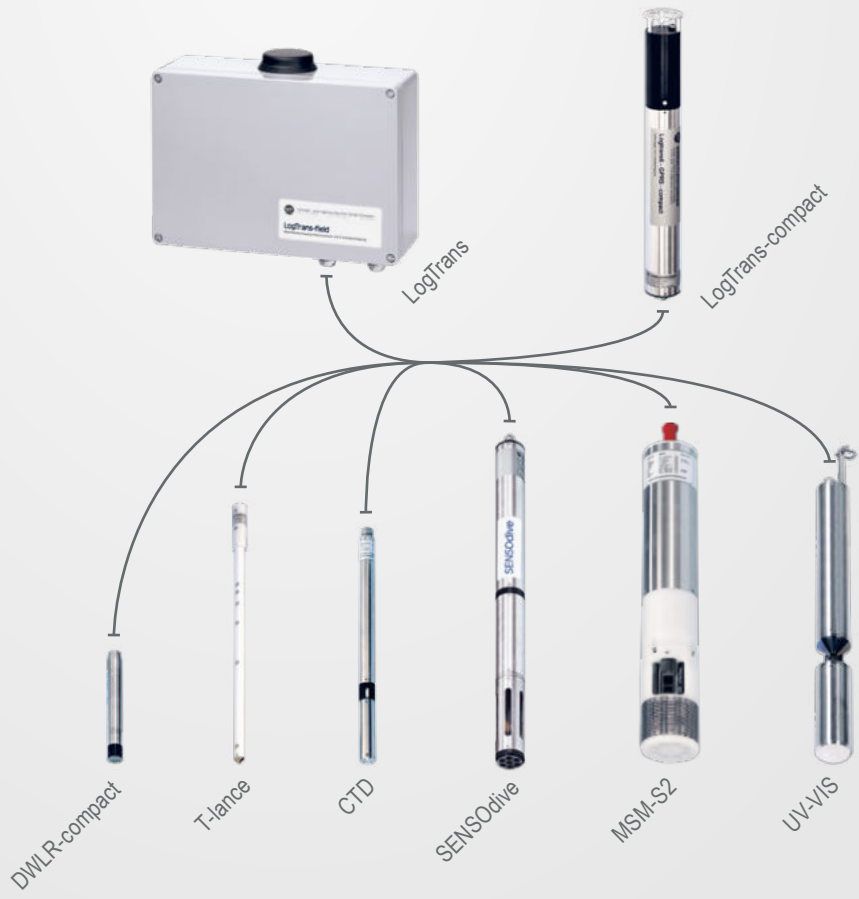
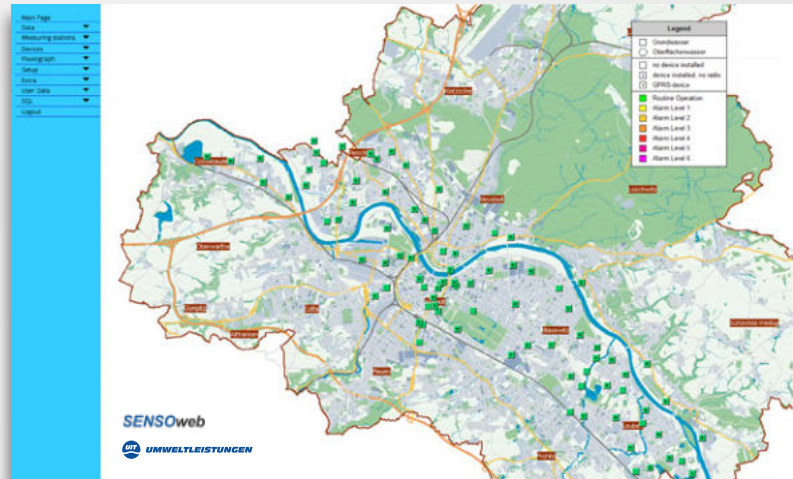


Measuring Devices

# Remote Sensing/ Monitoring

## SENSOweb<sup>®</sup>

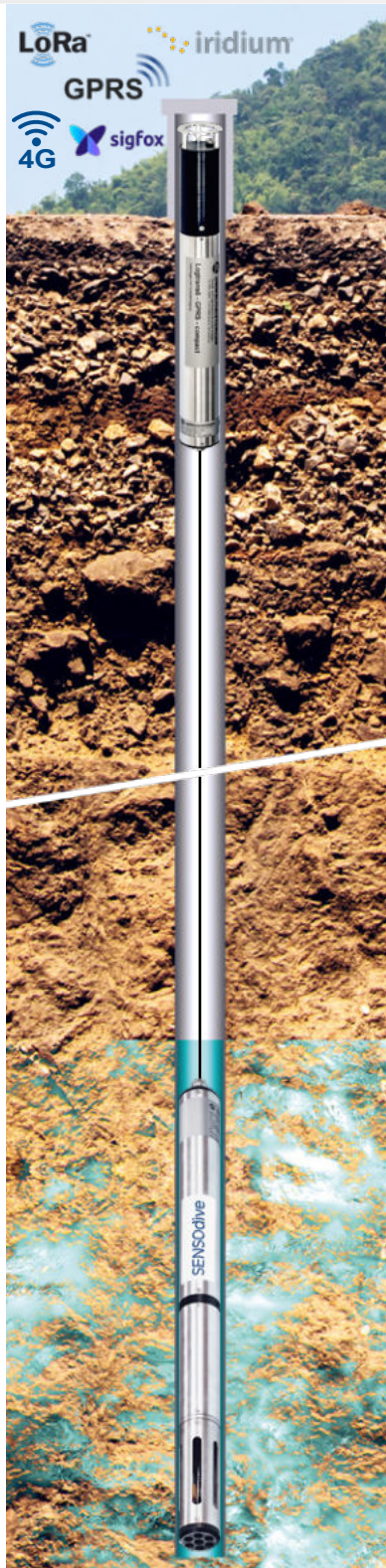
Probes ))))))) Wireless Telemetry ))))))) Data Management )))))))



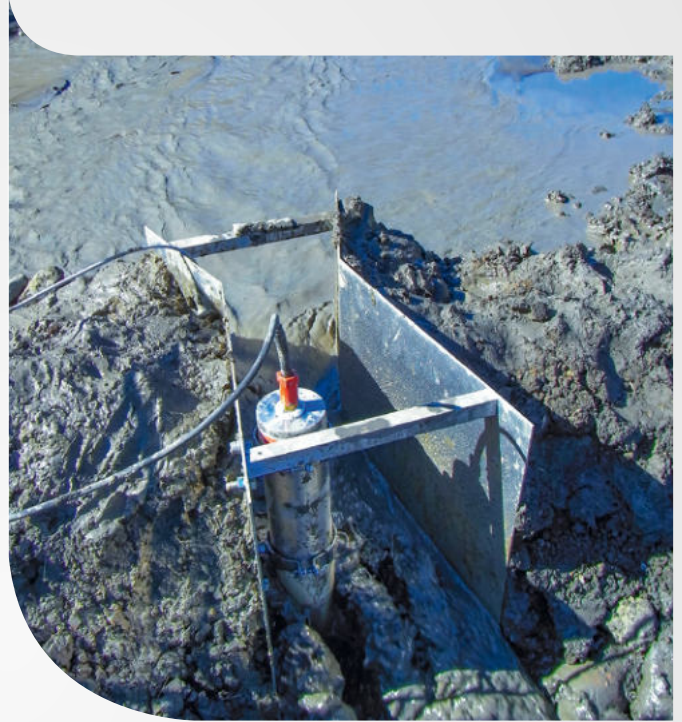
# Applications

## Measuring parameters

- pH
- ORP (redox potential)
- Conductivity
- Temperature
- Dissolved oxygen
- Nitrate - ion selective
- Nitrate- photometric
- Ammonia
- Chloride
- Bromide
- Free chlorine
- CO<sub>2</sub>
- Turbidity
- Chlorophyll (a)
- Cyanobacteria
- Pressure / water level
- COD<sub>eq</sub>
- BOD<sub>eq</sub>
- TOC<sub>eq</sub>
- DOC<sub>eq</sub>



## Application MSM multi - sensor module



## Surface Water Monitoring



## SENSOdive<sup>®</sup> Multi-Sensor Module with innovative telemetry

The multi-sensor module **SENSOdive** with remote data transmission technology and a stand-alone power supply is suitable for installation in groundwater monitoring wells from 2" diameter or at surface water measuring points. The **SENSOdive** measuring system impresses with precise sensors and a powerful integrated data logger combined with state-of-the-art remote data transmission technology.

Sensors - 3 Sensors plus installable pressure and temperature and ext. sensors	
Relative pressure sensor	0 ... 10 m; 0 ... 20 m; 0 ... 50 m; 0 ... 100 m water level
Absolute pressure sensor	800 - 2,100 mbar; 800 - 6,100 mbar; 800 - 11,100 mbar
Temperature sensor	0 °C ... 50 °C; resolution: 0.04 °C
Conductivity sensor	0 ... 20 mS/cm; resolution 1 µS/cm or 0 ... 0.2/2/20/500 mS/cm; resolution up to 0.1 µS/cm
pH	1 ... 14, resolution ΔpH = 0.01
Redox potential	-2,000 ... +2,000 mV; resolution 1 mV
pH/Redox – combination sensor	pH 1 ... 14; redox -2,000 ... +2,000 mV
DO [O <sub>2</sub> ] – luminescence	0 ... 40 mg/l O <sub>2</sub> ; resolution 0.02 mg/l O <sub>2</sub>
Ion selective sensors	Chloride, nitrate, ammonia and bromide – specification on request
External sensors	Turbidity; chlorophyll – only with data logger LogTrans7-compact or Logtrans-field

Technical data – SENSOdive – Probe plus Data logger	
Dimensions	Measurement probe: diameter: 48 mm; length: 600 mm
Material with medium contact	Stainless steel; POM; PUR, EPDM, NBR, PE plus sensor materials
Data logger	Technical data and selection: see pages 17 ... 18
Probe cable	Cable sheath PUR or PE
Operating temperature range	0 °C ... 50 °C <b>SENSOdive</b> ; data logger -25 °C ... +70 °C



SENSOdive

LoRa<sup>™</sup>

4G

GPRS

iridium

SENSOdive

QR code

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## SENSOdive<sup>®</sup> - compact Multi-Sensor Module

The multi-sensor module **SENSOdive-compact** with remote data transmission technology and a stand-alone power supply is suitable for installation in groundwater observation wells from 2" diameter or at surface water measuring points. The **SENSOdive** measuring system impresses with precise sensor technology and a powerful integrated data logger combined with ultra-low power consumption.

Sensors - 3 Sensors plus installable pressure and temperature and ext. sensors	
Absolute pressure sensor	800 ... 2,100 mbar; 800 ... 6,100 mbar; 800 ... 11,100 mbar
Temperature sensor	0 °C ... 50 °C; resolution 0.04 °C
Conductivity sensor	0 °C ... 20 mS/cm; resolution 1 µS/cm or 0 ... 0.2/2/20/500 mS/cm; resolution up to 0.1 µS/cm
pH	1 ... 14; resolution ΔpH = 0.01
Redox potential	-2,000 ... +2,000 mV; resolution 1 mV
pH/ redox – combination sensor	pH 1 ... 14; redox -2,000 ... +2,000 mV
DO [O <sub>2</sub> ] – luminescence	0 ... 40 mg/l O <sub>2</sub> , resolution 0.02 mg/l O <sub>2</sub>
Ion selective sensors	Chloride, nitrate, ammonia and bromide – specification upon request

Technical data – SENSOdive – Probe plus Data logger	
Dimensions	Measurement probe: diameter: 48 mm; length: 900 mm
Material with medium contact	Stainless steel; POM; PUR, EPDM, NBR, PE plus sensor materials
Data logger	Integrated LogTrans6-compact – see pages 17 ... 18 wireless transfer not usable
Operating temperature range	0 °C ... 50 °C <b>SENSOdive</b> – no frozen water

SENSOdive-compact



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## SENSOdive<sup>®</sup> - Profiler Mobile measuring system

The multi-sensor module **SENSOdive - Profiler** is suitable for recording water quality profiles in groundwater observation wells or lakes. The system can be used with level diameters from 2" and has a Bluetooth interface for wireless operation.

Sensors - 3 Sensors plus pressure and temperature	
Absolute pressure sensor	800 ... 2,100 mbar; 800 ... 6,100 mbar; 800 ... 11,100 mbar
Temperature sensor	0 °C ... 50 °C; resolution: 0.04 °C
Conductivity sensor	0 °C ... 20 mS/cm; resolution 1 µS/cm or 0 ... 0.2/2/20/500 mS/cm; resolution up to 0.1 µS/cm
pH	1 ... 14; resolution ΔpH = 0.01
Redox potential	-2,000 ... +2,000 mV; resolution 1 mV
pH/Redox – combination sensor	pH 1 ... 14; redox -2,000 ... +2,000 mV
DO [O <sub>2</sub> ] – luminescence	0 ... 40 mg/l O <sub>2</sub> ; resolution 0.02 mg/l O <sub>2</sub>
Ion selective sensors	Chloride, nitrate, ammonia and bromide – specification upon request

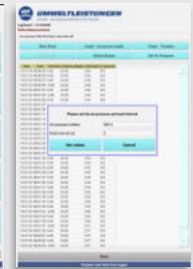
Technical data – SENSOdive – Probe plus cable reel plus data logger	
Dimensions	Measurement probe: diameter: 48 mm; length: 600 mm Cable reel: height 50 cm, width 40 cm, depth: 37 cm
Material with medium contact	Stainless steel; POM; PUR, EPDM, NBR, PE plus sensor materials
Data logger	LogTrans-field - special housing – see pages 17 ... 18 - but with Li-Ion accumulator 12V/ 2.6 Ah
Bluetooth-module	Wireless use during profile recording; Bluetooth 2.0 – Class 2 – approx. 10 ... 50 m range with SENSOapp
Operating temperature range	0 °C ... 50 °C <b>SENSOdive</b> ; cable reel -20 °C ... +60 °C



GPRS



SENSOdive - Profiler



SENSOapp



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## SENSOdive<sup>®</sup> - MODBUS Multi-Sensor Module

The multi-sensor module **SENSOdive - MODBUS** is equipped with a MODBUS RTU interface and is therefore ideally suited for connection to higher-level data acquisition systems (data loggers, PLC, etc.). The wide range power supply combined with a low current consumption allows a simple electrical connection. The calibration data for the individual sensors are stored within the probe.

Sensors - 3 Sensors plus pressure and temperature	
Relative pressure sensor	0 ... 10 m; 0 ... 20 m; 0 ... 50 m; 0 ... 100 m water level
Absolute pressure sensor	800 - 2,100 mbar; 800 - 6,100 mbar; 800 -11,100 mbar
Temperature sensor	0 °C ... 50°C; resolution: 0.04 °C
Conductivity sensor	0 ... 20 mS/cm; resolution 1 µS/cm or 0- 0,2/2/20/500mS/cm; resolution up to 0,1 µS/cm
pH	1 ... 14; resolution ΔpH = 0.01
Redox potential	-2,000 ... +2,000 mV; resolution 1 mV
pH/redox – combination sensor	pH 1 ... 14; redox -2,000 ... +2,000 mV
DO [O <sub>2</sub> ] – luminescence	0 °C ... 40 mg/l O <sub>2</sub> ; resolution 0.02 mg/l O <sub>2</sub>
Ion selective sensors	Chloride, nitrate, ammonia and bromide – specification on request

Technical data – SENSOdive – Probe	
Dimensions	Measurement probe: diameter: 48 mm; length: 600 mm
Material with medium contact	Stainless steel; POM; PUR, EPDM, NBR, PE plus sensor materials
Probe cable	Cable sheath PUR or PE
Output signal	MODBUS-RTU- RS485
Power supply	6 ... 14 VDC; 100 - 300 mA depending on equipping status, warm up time 10 s, switchable
Operating temperature range	0 °C ... 50 °C

SENSOdive - MODBUS

**Modbus**



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## MSM-S2

### Multi-Sensor Module

The multi-sensor module **MSM-S2** with remote data transmission technology and a stand-alone power supply is particularly suitable for installation in surface water areas. The measurement system impresses with precise sensors and a powerful data logger combined with state-of-the-art remote data transmission technology.

Sensors - 6 Sensors plus pressure and temperature and ext. sensors configurable	
Absolute pressure sensor	800 ... 2,100 mbar; 800 ... 6,100 mbar; 800 ... 11,100 mbar
Temperature sensor	0 °C ... 50 °C; resolution: 0.04 °C
Conductivity sensor	0 ... 20 mS/cm; resolution 1 µS/cm or 0- 0,2/2/20/500mS/cm; resolution up to 0,1 µS/cm
pH	1 ... 14; resolution ΔpH = 0.01
Redox potential	-2,000 ... +2,000 mV; resolution 1 mV
pH/Redox – combination sensor	pH 1 ... 14; redox -2,000 ... +2,000 mV
DO [O <sub>2</sub> ] – luminescence	0 ... 40 mg/l O <sub>2</sub> , resolution 0.02 mg/l O <sub>2</sub>
Turbidity	0 - 25/125/500/2500 NTU
Ion selective sensors	Chloride, nitrate, ammonia and bromide – specification on request
External sensors	Turbidity; chlorophyll

Technical data – MSM-S2 – Probe plus Data logger	
Dimensions	Measurement probe: diameter: 89 mm; length: 510 mm
Material with medium contact	Stainless steel; POM; PUR, EPDM, NBR, PE plus sensor materials
Data logger	Technical data and selection, see pages 17 ... 18
Probe cable	Cable sheath PUR
Operating temperature range	0 °C ... 50 °C probe; data logger -25 °C ... +70 °C



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## SENSOdive<sup>®</sup> + UV spectral photometer

The measuring system **SENSOdive + UV spectral photometer** comes as combination of a classic **SENSOdive** probe along with a UV spectrophotometer. Both probes are connected to the LogTrans-field data logger, providing a wide range of analyses. The data logger also controls the optional wiper cleaning system. The measuring system can be equipped with remote data transmission technology.

UV probe – spectral photometer - OPUS UV	
<i>UV – spectral probe for online analysis of organic loads and nitrogen components. Using full spectrum analysis, the UV-probe is able to give reliable readings for various parameters, such as NO<sub>3</sub>-N, NO<sub>2</sub>-N, COD<sub>eq</sub>, BOD<sub>eq</sub>, TOC<sub>eq</sub>, TSS<sub>eq</sub> – ranges upon request</i>	
Equipment status	Measuring parameters are offered project-specifically
Light source	Xenon flash lamp
Detector	High-end miniature spectrometer
Detector range	200 ... 360 nm; 256 channels; 0.8 nm/pixel
Analytical methods	Photometer attenuation, spectral analysis
Air pressure cleaning/ optional	Connector for air pressure cleaning of optical elements/ external compressed air supply necessary
Dimensions	Diameter 48 mm; length 470 mm
Optical path	0.3; 1; 2; 5; 10; 50 mm
Coating	Nano coating of optical elements
SENSOdive – Multi-Sensor-Modul	
Measurement parameter	pH, conductivity, redox, DO, ammonia, chloride, bromide, turbidity, water level, pressure
Specification	See page 04
Data logger	
Data logger	LogTrans-field specification see page 17 ... 18
Operating temperature range	0 °C ... 50 °C probe; data logger -25 °C ... +70 °C

SENSOdive + UV spectral photometer



## SENSONitrate optical Nitrate Measurement System

**SENSONitrate** is a nitrate measurement system consisting of an optical nitrate probe and a data logger with a robust power supply and modern remote data transmission technology. The four detection channels allow a precise optical determination of nitrate by absorption, taking into account turbidity and organic substances. It can be installed in measuring points with a diameter of 2" or more.

Nitrate Photometer - NICO	
Light source	Xenon flash lamp
Detector	4 photo diodes + filter
Measurement principle	Attenuation / spectral photometer
Parameter	NO <sub>3</sub>
Turbidity compensation	yes
Optical path	0.3 mm, 1 mm, 2 mm, 5 mm, 10 mm, 50 mm
Range NO <sub>3</sub> depending on path length	path 0,3 mm - 7,26...886 mg/l   path 1 mm - 2,2...266 mg/l   path 2 mm - 1,1...133 mg/l path 5 mm - 0,44...53 mg/l   path 10 mm - 0,22...26 mg/l   path 20 mm - 0,11...13 mg/l path 50 mm - 0,04...5 mg/l   1 mg/l N-NO <sub>3</sub> according to 4,43 mg/l NO <sub>3</sub>
Accuracy	+/- 5% under standard conditions plus basis error-see separate data sheet
Dimensions	370 x 48 mm at 10 mm path length
Material	Stainless steel 1.4571/ 1.4404

Data logger LogTrans 7 - compact or LogTrans-IoT-compact	
Technical data	See pages 17 ... 18
Power supply	3 pcs. Li-Ion accumulators, capacity 5.2 Ah; 14 VDC
Power consumption probe plus data logger	Sleep mode 0.1 mA; measurement: 800 mA for 45 ... 60 seconds; data transmission: ca. 100 mA for 60 seconds

SENSO nitrat



iridium

GPRS

4G

LoRa

Bluetooth

QR code

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## CTD-4G compact

### Conductivity | Temperature | Water level

The **CTD-4G - compact** is a measurement system for measuring and storing conductivity, water level, and temperature data, and includes remote data transmission technology. This measurement system has a complex alarm functionality and is therefore ideal for early warning applications. The system is also available in a flood-proof design.

CTD - sensor	
Relative pressure sensor	0 ... 10 m; 0 ... 20 m; 0 ... 50 m; 0 ... 100 m water level
Absolute pressure sensor	800 ... 2,100 mbar; 800 ... 6,100 mbar; 800 ... 11,100 mbar
Accuracy	0.05 % FS at 10...40°C; resolution 0.002 % FS + drift
Temperature sensor	0 °C ... 50°C; resolution 0.04 °C
Conductivity sensor / graphit electrode	Option 1: 0 - 20 mS/cm; resolution 1 µS/cm - two electrode system Option 2: 0 - 0,2/2/20/200 mS/cm; resolution up to 0,1 µS/cm - four electrode system
Probe cable	Material PUR with air pressure capillary
Dimensions	Diameter probe: 22 mm; length: 340 mm
Material with medium contact	Stainless steel; POM, PUR, EPDM, NBR, PE plus sensor materials Variant for high chloride content (sea water) on request

Data logger LogTrans 7 - compact	
Dimensions:	Diameter: 48 mm, length: 700 mm
Protection degree:	Option 1 – with air pressure membrane: IP 65 Option 2 – without air pressure membrane : IP 68
Temperature range:	-25 °C ... 70 °C
Power supply:	4 batteries, type Duracell Alkaline – up to 8 Ah – other types on request
Wireless data transfer:	4 band GSM/ GPRS modem, 900 MHz, 1,800 MHz, GSM: 800, 1,900 MHz + 4G (LTE) or 4G (NB-IoT)
Optional: external antenna	Mountable with the same protection degree
Optional data logger	see pages 17 ... 18

CTD-4G compact

The image shows the CTD-4G compact sensor and data logger. The sensor is a long, thin, black and silver probe with a cable attached. The data logger is a larger, black and silver cylindrical device. The image is surrounded by logos for wireless communication technologies: GPRS, 4G, LoRa, and Iridium. A QR code is located in the bottom right corner, next to contact information for support.

QR code

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## SENSOlab SL 160

### Water quality measurement system

The **SENSOlab SL 160** water quality measurement system is a compact unit for measuring and storing water quality parameters in laboratories and in the field. It comes with a large, ergonomically adjustable touch display. Optionally, the system can be equipped with a MODBUS interface.

Sensors	
Relative pressure sensor	0 ... 10 m; 0 ... 20 m; 0 ... 50 m; 0 ... 100 m water level
Absolute pressure sensor	800 ... 2,100 mbar; 800 ... 6,100 mbar; 800 ... 11,100 mbar
Temperature sensor	0 °C ... 50°C; resolution 0.04 °C
Conductivity sensor	0 ... 0.2/2/20/500 mS/cm; resolution up to 0.1 µS/cm
pH	1 ... 14; resolution ΔpH = 0.01
Redox potential	-2,000 ... +2,000 mV, resolution 1 mV
DO [O <sub>2</sub> ] – luminescence	0 ... 40 mg/l O <sub>2</sub> , resolution 0.02 mg/l O <sub>2</sub>
Free chlorine	Range 0 ... 2 mg/l, application area pH 4 ... 12, amp. sensor, other ranges on request
Turbidity	0 - 25/125/500/2500 NTU
Ion selective sensors	Chloride, nitrate, ammonia and bromide – specification upon request

SENSOlab SL 160	
Basis system	<b>SENSOlab SL 160</b> – aluminium case WxHxT 166 x 184 x 70 mm without connectors, without external power supply unit
Display / keypad	800 x 480 pixel, 5" display; 110 x 67 mm, keypad
Protection degree	IP 54 – application area: no condensing humidity, 5 °C ... 40 °C, not suitable for outdoor use without additional field housing
Power supply unit	110-230VAC/24 VDC (external power supply unit)
Memory / Interface	Internal flash memory with data logger; MODBUS RTU; USB

SENSOlab SL 160



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## SENSOwater Water analysis panel

The **SENSOwater** analysis panel is used particularly in drinking water monitoring and process control. The basic unit used is the **SENSOlab SL 160** water quality measurement system. Furthermore, the measuring panel is equipped with the necessary flow cells.

Sensors	
Relative pressure sensor	800-11.100 mbar absolutely pressure or 0-10 bar relative other ranges on request
Absolute pressure sensor	800 ... 2,100 mbar; 800 ... 6,100 mbar; 800 ... 11,100 mbar
Temperature sensor	0 ... 50°C; resolution 0.04 °C
Conductivity sensor	0 ... 0.2/2/20/500 mS/cm; resolution up to 0.1 µS/cm
pH	1 ... 14; resolution $\Delta$ pH = 0.01
Redox potential	-2,000 ... +2,000 mV; resolution 1 mV
DO [O <sub>2</sub> ] – luminescence	0 ... 40 mg/l O <sub>2</sub> ; resolution 0.02 mg/l O <sub>2</sub>
Free chlorine	Range 0 ... 2 mg/l; application area pH 4 ... 12, amp. sensor, other ranges on request
Turbidity	0-25/125/500/2500 NTU
Ion selective sensors	Chloride, nitrate, ammonia and bromide – specification on request
Spectrometer	UV-probe or nitrate photometer

Water analysis panel	
Dimensions	Standard 135 x 115 cm, valid for equipping status pH, turbidity, free chlorine, pressure + analogue inputs + counter inputs
Main material	PVC
Max. input pressure	10 bar
Flow rate	approx. 1 l/min - recommended
Measurement system	SENSOlab SL 160

SENSOwater



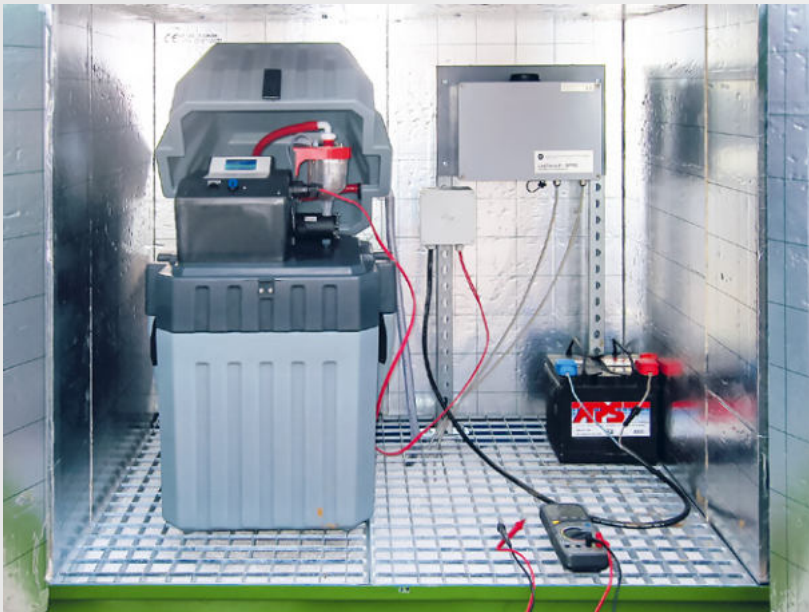
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## Compact measuring station Water quality

The compact measuring station for water quality is a combination of measuring probes with an automatic water sampler. The compact measuring station is equipped with a data logger and includes remote data transmission. The water sampler and data loggers are installed in a field cabinet and thus robustly housed. Sampling can be triggered automatically or by time.

Field case	
Dimensions	140 cm x 85 cm x 145 cm
Material	Steel with isolation
Type	Lockable
Automatic sampler	
Bottles	24 x 1 litre suction
Sampling system	Vacuum system; suction head up to 6.5 m at 1.013 hPa air pressure
Sampling method	Time-controlled and/or alarm triggered
Probes	
Option 1	<b>SENSOdive</b> – specifications: see page 03
Option 2	<b>MSM-S2</b> – specifications: see page 07
Data logger	
Optional	LogTrans-field - specification see pages 17 ... 18
Power supply	Accumulator 12V/60 Ah
Solar power supply	Option



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Measuring station - compact



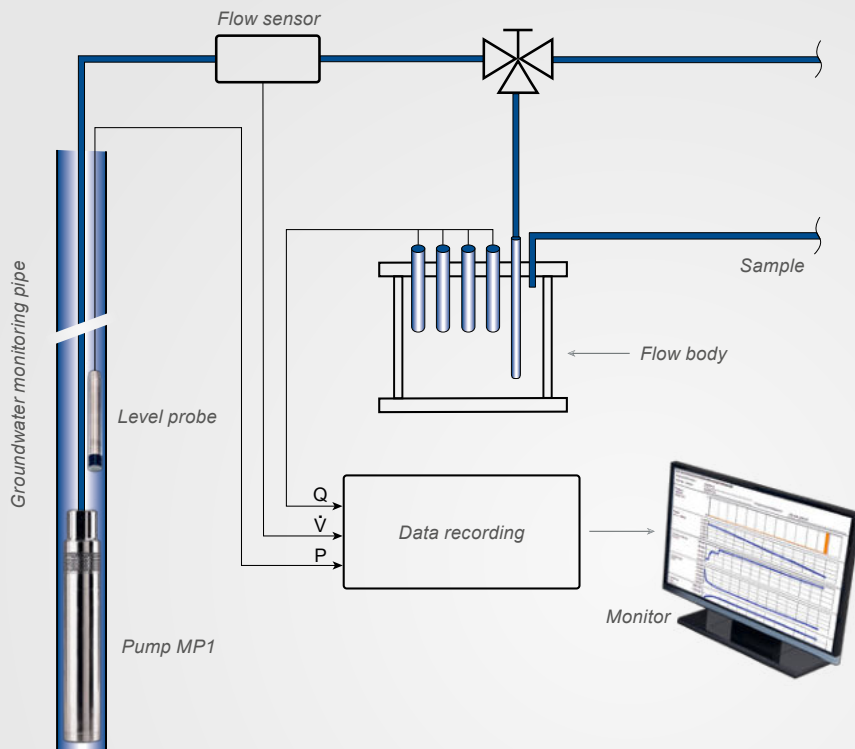
# Measurement technology

## Groundwater sampling

According to regulations, it may be necessary to record and, if necessary, store environmental and hydraulic parameters during groundwater sampling or pumping tests. The DMT system is a proven and compact measurement system. The following standards are supported: **DVWG W 112, BWK sheet M5, DIN 38402-A13, MHM of LMBV**. Furthermore, **customer and plant-specific regulations** are supported. **Please do not hesitate to contact us!** Depending on the requirements, the following equipment options are available:

Equipment variants	A	B	C
Sensor pH, redox, conductivity, T, O <sub>2</sub>	✓	✓	✓
Sensor water level, volume flow rate	Option	✓	✓
Flow cell for sensors	✓	✓	✓
Inputs and outputs for volume flow and sample flow	✓	✓	✓
Data logger for continuous data acquisition	-	✓	✓
Software for sampling and data visualization incl. protocol software	-	✓	✓
Linking with database for the measuring points	-	✓	✓
Pump control for sampling pump (MP1)	-	-	✓

### STRUCTURE FROM VARIANT B

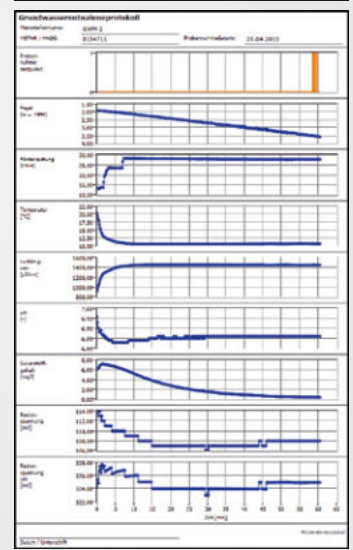


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Sensordatenmessprotokoll		
Protokollnummer	0099-2	Art der Messstelle
Messort	0104711	Abflussstation
Messortname	Wasserwerk ÜNB	Abfluss
Messgröße	335.48 [m³/s]	Durchfluss
Messzeitpunkt	01.05.2010 14:00	Messdauer
Messperson	...	...

Sensordatenmessprotokoll		
Protokollnummer	0099-2	Art der Messstelle
Messort	0104711	Abflussstation
Messortname	Wasserwerk ÜNB	Abfluss
Messgröße	335.48 [m³/s]	Durchfluss
Messzeitpunkt	01.05.2010 14:00	Messdauer
Messperson	...	...

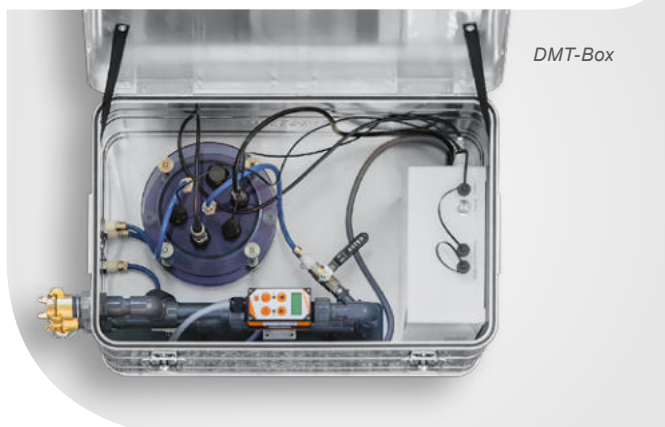


## Measurement technology

### Groundwater sampling

A distinction is made between the **DMT-Box** and a measuring vehicle configuration. Technical data of the **DMT-Box** also applies to the measuring vehicle, but is integrated in the vehicle. Technical data:

DMT-Box - Sensors	
Relative pressure sensor	0 ... 10 m; 0 ... 20 m; 0 ... 50 m; 0 ... 100 m water level
Flow rate	1.6 ... 32 l/h option: 2.5 ... 50 l/h or 3.2 ... 63 l/h
Temperature sensor	0 ... 50°C; resolution 0.04 °C
Conductivity sensor	0 ... 0.2/2/20/500 mS/cm; resolution up to 0.1 µS/cm
pH	1 ... 14; resolution $\Delta$ pH = 0.01
Redox potential	-2,000 ... +2,000 mV; resolution 1 mV
DO [O <sub>2</sub> ] – luminescence	0 ... 40 mg/l O <sub>2</sub> ; resolution 0.02 mg/l O <sub>2</sub>
Turbidity	Option: 0 ... 25/125/500/2500 NTU
Technical data – Box/ data logger	
Dimensions	70 cm x 38 cm x 38 cm
Weight	16.5 kg
Connectors	Input GEKA ¾“; output GEKA ¾“ – bayonet fitting, output flow cell
Flow cell	Suitable for installation of sensors pH, conductivity, T, DO, redox
Flow divider	Splitting of the flow to flow cell and direct output
Data logger	LogTrans-field integrated in the water quality module special housing
Power supply	12V/ 6.5 Ah suitable for several days of work, incl. charger





## Data loggers

### With remote transmission technology

The data loggers produced by [UIT GmbH Dresden](#) are ideally suited for setting up measurement systems with low power consumption and remote data transmission technology. All data loggers have highly effective alarm functions and are available with various data transmission technologies.

General technical data of UIT data loggers	
Interfaces	MODBUS, RS 485
Inputs	2 counter, optional analogue inputs
Sample rate	1 s ... 24 h
Memory	512 MB for values and 512 MB for pictures
Interface	USB 2.0 to be parametrized with <b>SENSolog</b>
Alarm notification	Two channels with up to 6 alarm notifications
Power consumption	Sleep mode 0.08 mA, with Bluetooth 4.0; 0.12 mA, Bluetooth-communication 16 mA, measurement and/or USB connection 20 mA + power consumption of probe, wireless data transfer 200 mA – other values valid for data transfer via satellite communication
Operating temperature range	-25 °C ... +70 °C

MSM S2 Multisensor-module



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The following data logger variants are available and, in addition to the general technical data mentioned above, have the following product-specific technical data.



Data logger LogTrans 7-compact

Data logger LogTrans 7-compact	
Wireless data transfer	GSM/ GPRS modem, 900 MHz, 1,800 MHz, GSM: 800, 850, 1,900 MHz, option 3G, option LTE or 4G NB-IoT modem
Data security	Option: TLS - client-server certificate
Optional: air pressure sensor	800 ... 1,200 mbar, installed in data logger
Option: Bluetooth	Bluetooth LE for wireless basic parameterization and data display only with 3G-modem or LTE-modem
Power supply	2 - 4 lithium batteries – 13/26Ah or 4 alkaline Baby 1.5 V (Duracell) or Li-Ion accumulators, 5.2 Ah, definition with offer
Dimensions	Diameter 48 mm, length 700 mm
Protection degree	Option 1 – with air pressure membrane: IP 65 Option 2 – without capillary: IP 68 Option 3 – without capillary, with air pressure sensor: IP 68
Optional: external antenna	Mountable with the same protection degree

## Data loggers

### With remote transmission technology



Data logger LogTrans 7-sat-compact

Data logger LogTrans 7-sat-compact	
Wireless data transfer	Integrated Iridium modem for the Iridium satellite system with the widest possible complete worldwide coverage. Iridium Modem 1616...1626,5 MHz; No activation via SIM card, but activation via IMEI registration at the provider.
Optional: air pressure sensor	800 ... 1,200 mbar, installed in data logger
Power supply	2 - 4 lithium batteries– 13/26Ah or 4 alkaline Baby 1.5 V (Duracell) or Li-Ion accumulators, 5.2 Ah, definition with offer
Dimensions	Diameter 48 mm, length 700 mm
Protection degree	Option 1 – with air pressure membrane: IP 65 Option 2 – without capillary: IP 68 Option 3 – without capillary, with air pressure sensor: IP 68
External antenna	necessary



Data logger LogTrans –LoRa-compact

Data logger LogTrans – IoT-compact	
Wireless data transfer	LoRa® or LoRaWAN® – 868 MHz
Optional: air pressure sensor	800 ... 1,200 mbar, installed in data logger
Power supply	2 - 4 lithium batteries– 13/26Ah or 4 alkaline Baby 1.5 V (Duracell) or 2 x Li-Ion accumulators, 5.2 Ah, definition with offer
Dimensions	Diameter 48 mm, length 700 mm
Protection degree	Option 1 – with air pressure membrane: IP 65 Option 2 – without capillary: IP 68 Option 3 – without capillary, with air pressure sensor: IP 68
External antenna	Option: mountable with the same protection degree
Gateways	Option: Gateways for LoRa® or LoRaWAN®



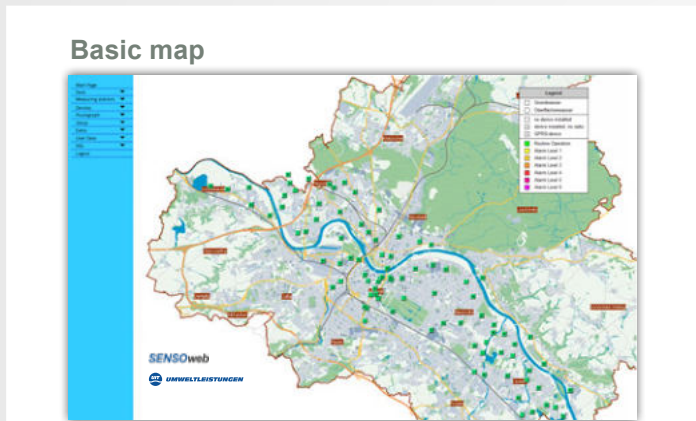
Data logger LogTrans-field

Data logger LogTrans-field	
Option: extension board	3 x 0 ... 5 VDC and 3 x 0 ... 20 mA single ended, multiple boards installable, 16 Bit resolution
Wireless data transfer	Integrated 4 band GSM/ GPRS modem Options 4G LTE/ LoRaWAN/ NB-IoT/ Iridium - Modem
Standard antenna	Roof antenna, 3 dB gain
Power supply	
Option 1: - accumulator	12 V, 6,5 Ah for data logger and sensor useable
Option 2: - solar	Additional solar charger mounted in the aluminum case
Option 3: - power supply	220 VAC/ 12 VDC, 3 A
Sensor power supply 12 V	Power supply for sensors switched
Option: Bluetooth	Bluetooth LE for wireless basic parameterization and data display only with 3G-modem or LTE-modem
Protection degree	IP 65
Case dimensions	Aluminum 330 x 290 x 115 mm, incl. antenna, IP 65

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Wireless technologies



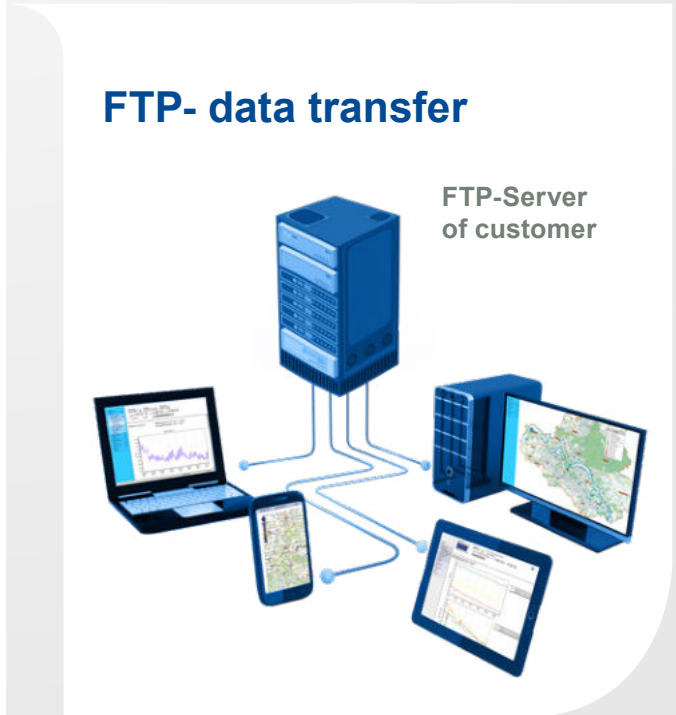
Submaps – alarm parameterization

Alarm level	Alarm active	Temperature [°C]		D*		Measuring interval [s]	Transmission interval [s]	Average	Message delay	Alarm transmission active
		Minimum	Maximum	Minimum	Maximum					
1	<input checked="" type="checkbox"/>	5.0	5.0	no channel selected	no channel selected	60	24	1	1	<input type="checkbox"/>
2	<input checked="" type="checkbox"/>	5.0	5.0	no channel selected	no channel selected	15	6	1	1	<input type="checkbox"/>
3	<input checked="" type="checkbox"/>	20.0	5.0	no channel selected	no channel selected	18	6	1	1	<input type="checkbox"/>
4	<input type="checkbox"/>	5.0	5.0	no channel selected	no channel selected	60	24	1	1	<input type="checkbox"/>
5	<input type="checkbox"/>	5.0	5.0	no channel selected	no channel selected	60	24	1	1	<input type="checkbox"/>
6	<input type="checkbox"/>	5.0	5.0	no channel selected	no channel selected	60	24	1	1	<input type="checkbox"/>

Remote parameterization: Alarm levels

Main Page  
Data  
Site: Station 5 (143)  
Value as: Measured data  
Period: Calendar Week(s) from 15 2018 to 16 2018  
Display as: Measured Data  
Display range: [ ]  
Chart / Table / Create/Refresh

OR



# Technology pro Environment



● Worldwide activities of UIT

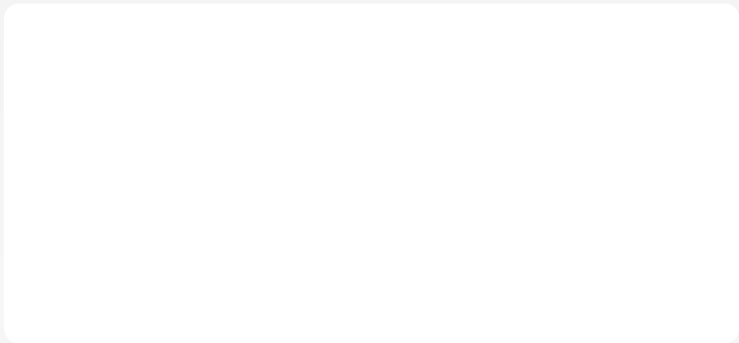
[www.uit-gmbh.de](http://www.uit-gmbh.de)

The company belongs to General Atomics Europe Gruppe and as such is part of the global network of General Atomics.



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The data sheet also describes optional special equipment.  
The concrete scope of delivery is defined in each case with the offer.

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