

BENEFITS IN PRACTICE:

Maintenance-free,
high quality measuring devices
"Made in Germany"

Tamper proof data logging
and documentation

Ideal for long-term measuring

Memory for up to 3,200,000
measurement values

Parallel logging of up to 20
separate measuring channels

Network function

Low energy consumption

Flexible power supply via
battery or USB – optional with PoE
also via LAN

Timer function, variable measuring
intervals, alarm function for each
measuring channel

Measurement information presented
on a three-lined LCD display

Includes professional software

**MultiMeasure
PROFESSIONAL**

External sensors

Two TS910 contact temperature sensors can also be connected to the DL200P in addition to the two electrode pairs from the MultiMeasure electrode program (see p. 48) to determine moisture resistance.



The TS910 external sensor is equipped with a six-metre long cable designed to increase the device's operating range and an IP65 protected housing for monitoring the temperature of liquids.



Such a variety of loggable measurement values makes the MultiMeasure Professional Data Logger an indispensable device with regard to proof of due diligence and in connection with any claims or queries relating to guarantees!

DL200 data logger

For tamper proof logging and documentation
of climate data and additional measurement values



**Made in
Germany**

Tamper proof logging – ideal for long-term measuring

The data loggers in the MultiMeasure Professional Series provide users in trade and industry as well as the construction trade with a wide range of possibilities for carrying out long-term tamper proof measurements. The measuring devices, which all bear the hallmark "Made in Germany", are equipped with internal precision technology designed for logging a variety of different climate data and connection facilities for external sensors and electrodes (DL200P). Because the compact data loggers can either be used as a stationary device with optional Power over Ethernet (DL200H only) or powered by battery, they are ideal for flexible use in changing locations and especially well-suited for experts and surveyors and real estate managers.

Multiple measuring channels – multiple possibilities ...

The data loggers in the series are able to measure as many as 48 parallel measurement values (DL200H 24 measurement values), which allows the user to log individually configurable measurement value combinations on up to 20 separate measuring channels in arbitrary intervals.

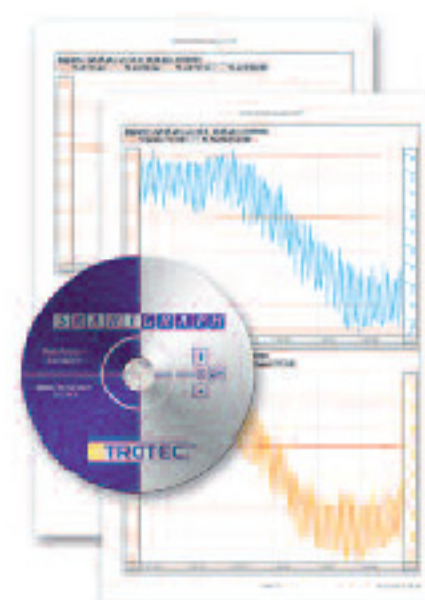
This variability makes the measuring instruments ideal for monitoring the indoor climate and climate sensitive production processes and storage conditions or for proof of due diligence.

The devices are all equipped with a LAN and a USB interface for quick transfer of measuring data.

Professional configuration and measurement data management software

Each of the data loggers in the DL series comes with professional software which allows any number of data loggers to be read out via LAN, even when they are positioned in far-off or remote locations.

In addition to providing a comfortable option for managing data and configuring data loggers, the software enables the user to compile protocols or export recorded measurement series data for archiving.



Data loggers in the DL series – the ideal solution for flexible climate and process data monitoring for industry, data management, logistics, farming and the building trade.



The DL200H is ideal for climate monitoring in buildings, data processing centres, museums and storage rooms and warehouses and for monitoring climate sensitive processes in industry production.

The DL200P has additional ports for external sensors which makes it excellently suited for a wide variety of different applications, for example for monitoring silos or bulk materials or monitoring water based liquids.

In addition, the DL200P's protocol capability allows it to be used during building drying and water damage restoration to



provide uninterrupted documentation for insurance companies and to ward off claims. The practical alarm function also allows damage to buildings or inventory to be recognised at an early stage or to be avoided completely.

Real-time data logging in networks

All the data loggers in the DL series can be provided with an individual IP address – also in decentralised measuring networks with different data loggers – which allows measuring data to be transferred and the loggers to be configured remotely via LAN.



Power can also be supplied via the network (PoE), whereby the internal batteries serve as a UPS in order to ensure an interrupted power supply.

Monitoring tasks in automation and control engineering

Whether it's to determine particle concentration, pressure or flow speeds, the DL200E (available on request) can be configured flexibly to suit a variety of applications and demands. That's because instead of internal sensors the DL200E has external ports for BUS sensors, Pt100 temperature sensors, thermo elements (types K, J, S) as well



as for voltage and power sensors with standardised signals for individual measuring conversion in a variety of physical sizes and measuring units.

Indoor monitoring of CO₂ concentration and air pressure

We are also able to provide data loggers based on the DL200H with additional internal sensors for monitoring and logging CO₂ indoor concentration or air pressure on request.

Technical data		DL 200 H	DL 200 P
Article no.		3.510.260.010	3.510.260.011
Measurable values	Internal sensors	Air temperature (°C/°F), dew point temperature (°C/°F), relative humidity % RH, absolute relative humidity g/m ³	
	External sensors / electrodes	–	Surface temperature (°C/°F), material temperature (°C/°F), air temperature (°C/°F), wood moisture (digits), building moisture (digits)
Internal sensors	Air temperature	Principle: NTC; measuring range: -20 °C to + 50 °C; accuracy: ± 0.3 °C (0...40 °C), otherwise 0.5 °C; display resolution: 0.1 °C;	
	Relative humidity	Principle: capacitive; measuring range: 10 to 95 % RH; accuracy: ±2 % RH; display resolution: 0.5 % RH	
External sensors / electrodes	Temperature	–	with optional TS910 temperature sensor (article number ZB9100145): Principle: NTC; measuring range: -20 °C to +80 °C; accuracy: 0.2 °C (0...40 °C), otherwise 0.8 °C; display resolution: 0.1 °C (0...40 °C), otherwise 0.2 °C; cable length: 6 m; sensor length: 20 mm, sensor diameter: 5 mm; weight: 85 g; protection class: IP65; port: 3.5 mm jack plug
	Material moisture**	–	Principle: resistance measuring method; measuring range: 15 to 100 digits; accuracy*: ± 3 digits; display resolution*: 1 digit
Memory organisation	Measurement data processing	Sampling interval: 10/30 s, 1/10/12/15/30 min, 1/3/6/12/24 h; memory interval: 1/10/12/15/30 min, 1/3/6/12/24 h	
	Data memory	Integrated memory with 16 MB memory capacity (approx. 3,200,000 measurement values)	
	Data logging	Up to 20 measuring channels*** parallel	
Features and dimensions	Housing	Synthetic material; 166 L x 32 W x 78 H mm; weight approx. 250 g;	
	Ports	USB, LAN	USB, LAN, 2 x 3.5 mm jack socket (for external sensors), 2 x BNC connectors (for external electrodes)
Energy supply	Internal	4 x LR6 AA mignon batteries, battery life > 1 year	
	External	USB, LAN (PoE model)	USB
Scope of delivery	Standard	Data logger, USB connecting cable, batteries, CD ROM with PC software for graphic and numerical depiction of the determined measurement values, operating instructions	
	Optional	Measuring device as a PoE model	TS910 external temperature sensor, external electrodes for determination of wood and building moisture

* in the range 20 ... 80 digits

** external measuring electrodes with BNC connector for resistance measurements of material, wood and building moisture; TC 20 connection cable also required

*** Each measurement which has been determined by the data logger in the specified measuring unit represents a channel group. The measured variable temperature in the measurement unit °C represents a channel group, for example, and the measurement unit °F a further channel group. There are four measuring channels (measurement value types) available for logging from each channel group: current, minimum, maximum and the average measurement value. The DL 200H is able to determine measurement values from a total of 24 measuring channels (six channel groups) with two external sensors and the DL 200P can determine a total of 48 measuring channels (twelve channel groups) with up to four external sensors of which 20 can be logged at random.