Technical Data basic modul

Cable
4-cores round cable, polyethelene V2a-conductors with copper core, black cm-division with dm-marks and m-indications

Cable drum
impact-resistant, temperature stable synthetic material, with supporting frame made of aluminium

Power supply
rechargable batteries 4x 2 V
operation period: 8...15 hours depending on cable length and configuration

Cable lengths: 50, 100, 200, 300, 500 m

Digital indication
alphanumerical 3 character LC-Display for indication of current value

Sensor body
non corrosive stainless steel V4a or PVC

Connectable Sensors:
- multiparameter sensor MPS-D3
- multiparameter sensor MPS-D8
- multiparameter sensor MPS-K16

Data Logger Function (Option)

Electronic System:
- internal power supply: 8V (4x2V Lead gel akku)
- external charger
- power consumption in power-down Mode: 140µA
- Flash-Controller M16C 16-Bit with integrated Watch-dog
- IC-Clock
- serial Flash-Memory with 1MB (approx. 70,000 measuring values)
- channels: maximal 32

Operation and indication:
- display (3 lines, 16 characters 3.65mm)
- keyboard with 3 keys

Interface:
- RS 232

Input /Output sensor connection:
- RS 485

Technical Data sensors

Parameter	Measuring ranges
water level	0...200 m temperature: -5...50°C
temperature	-5...50°C pressure: 0...50 bar
conductivity	0...200mS temperature: -5...50°C pressure: 0...50 bar
total dissolved solids (TDS)	0...200,000mg/l temperature: -5...50°C pressure: 0...50 bar
salinity	0...70 temperature: -5...50°C pressure: 0...50 bar
density	988…1,060 g/l temperature: -5...50°C pressure: 0...50 bar
oxygen (amperometric)	0...40mg/l temperature: 0...50°C pressure: 0...10 bar
oxygen (optical)	0...25mg/l temperature: 0...50°C pressure: 0...10 bar
oxygen saturation	0..400% saturation temperature: 0...50°C pressure: 0...10 bar
pH	0..14 temperature: 0...50°C pressure: 0...20 bar
redox (ORP)	-1,200mV...1,200mV temperature: 0...50°C pressure: 0...20 bar
ammonia	0.01...17000mg/l temperature: 0...50°C pressure: 0...0,5 bar

Parameter	Measuring ranges
nitrate	0.4...60,000mg/l temperature: 0...40°C pressure: 0...20 bar
chloride	1...35,000mg/l temperature: 0...50°C pressure: 0...20 bar
ammonium	0.2...18,000mg/ temperature: 0...40°C pressure: 0...1 bar
natrium	0.2..20,000mg/l temperature: 0...50°C pressure: 0...6 bar
calcium	0.5...40,000mg/l temperature: 0...40°C pressure: 0...1 bar
fluoride	0.2…20,000mg/l temperatuer: 0...40°C pressure: 0...1 bar
potassium	0.4...39,000mg/l temperature: 0...40°C pressure: 0...1 bar
chlorophyll a (optical)	0.03…500µg/l Chl a temperature: -2...50°C pressure: 0...60 bar
cyanobacteria (optical)	150...2,000,000 cells/ml temperature: -2...50°C pressure: 0...60 bar
rhodamine WT (optical)	0.04...1,000ppb RWT temperature: -2...50°C pressure: 0...60 bar
turbidity (optical)	0...1,000NTU temperature: 0...50°C pressure: 0...10 bar with wiper 0...20 bar without wiper
total suspendid solids (TSS)	approx. 5 fold measuring range turbidity mg/l temperature: 0...50°C pressure: 0...10 bar with wiper 0...20 bar without wiper

Further information on Multiparameter Sensors please see separate brochure on Water Quality Monitoring

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represented by:

Water Quality Dipper Type KLL-Q

Multifunctional Water Quality Measurements in Groundwater or Lakes

Key Features

KLL-Q 3rd generation

NEW:
with round cable
and integrated data logger
or manual data storage

Measuring parameters

- Water level
- Temperature
- Conductivity
  - total dissolved solids (TDS)
  - salinity
  - density
- Dissolved oxygen
  - oxygen saturation
- pH-value
- Redoxpotential (ORP)
- Ammonia
- Nitrate
- Chloride
- Ammonium
- Sodium
- Calcium
- Fluoride
- Potassium
- Chlorophyll a
- Cyanobacteria
- Rhodamine WT
- Turbidity
  - total suspended solids (TSS)

KLL-Q-2

Groundwater Monitoring

Adjusting the KLL-Q

Water Sampling in Lakes

We are certified
ISO 9001:2000
Certificate No. 01110505
Quality is our standard

B04_KLLQ525_e_S1-4_ş 10.04.2008

Quality Measuring with KLL-Q

The SEBA-KLL, type KLL-Q-2 is a unique mobile field laboratory for measurements of water quality at groundwater or surface water measuring sites. Suitable for 50mm (2") diameter wells. The instrument has an extremely compact design, easy operation with fast and precise acquisition of many water quality parameters. The current measured values are clearly displayed.

Optionally, the instrument can be equipped with an integrated data logger with storage of up to 70,000 measuring values or manual point storage. Water contact is identified by an acoustic signal. The new graduated round-cable with robust PE-covering (laser-printed, cm/dm/m) is fade proof and abrasion resistant.

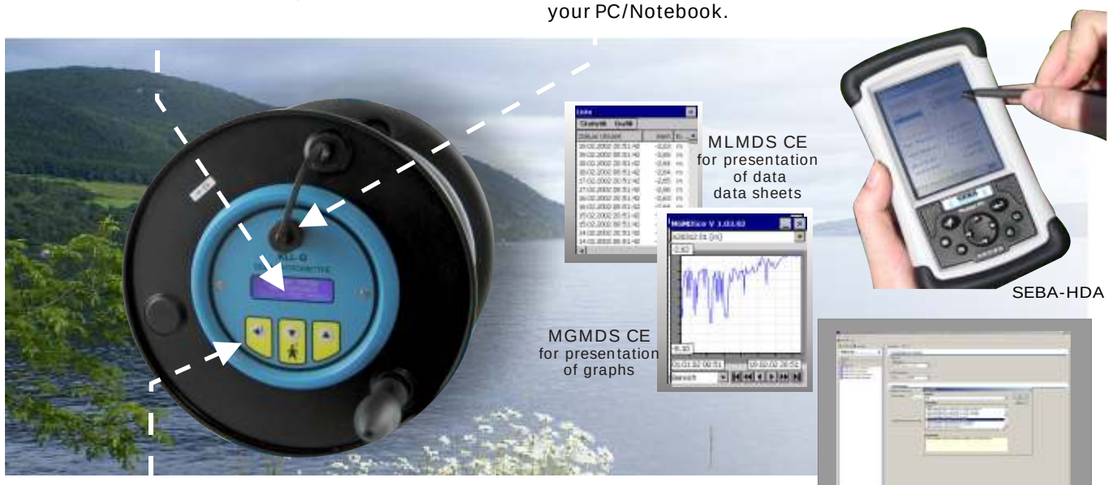
KLL-Q in Detail

Display

3-lines Display with background lighting for clear indication of current measuring values.

RS232 Interface

Comfortable calibration of Multiparameter Sensors via operation Software SEBAConfig and your PC/Notebook.



SEBAConfig operation with Laptop

Keys

The instrument can be operated via 3 keys on the front. It is very user-friendly and menu-guided

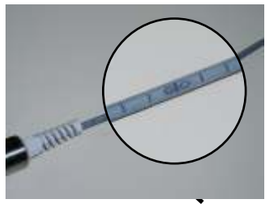
SEBA-HDA

Your alternative to using a Notebook for programming, read-out of the stored files as well as for local visualisation of measuring data.

Data Logger

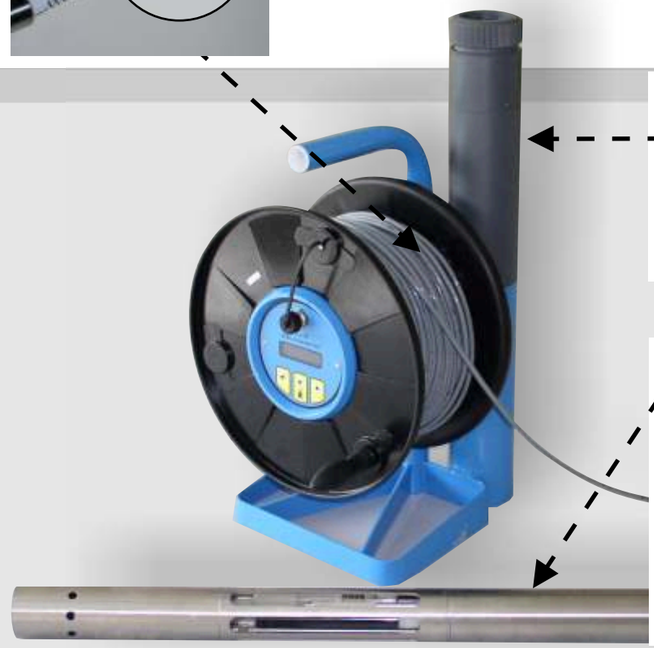
Data logger functionality (optional) is possible for the automatic storage of up to 70,000 measured values. Instant logs can be achieved manually at the push of a button, suitable for quick assimilation of water quality profiles at depth.

Operation via RS 232-interface with SEBA-HDA or laptop



Cable

Due to the drum-combined supporting-frame the Multiparameter-Probe can easily be lowered with our new improved laser-printed round-cable.



Transport-Container

The comfortable transport-container guarantees for a fast readiness as well as a safe storage of the probes.

Multiparameter Sensor

Plug-in, maintenance-friendly high-quality-steel probes for connection to KLL-Q or MPS-Checker.
Individually configurable with different sensor-systems (i.e. pH, O_2, conductivity etc.)

For a detailed description of the Multiparameter-Probe please see our Water Quality Monitoring brochure.

Measuring parameters

- Water level
- Temperature
- Conductivity
  - total disolved solids(TDS)
  - salinity
  - water density
- Oxygen
  - Oxygen saturation
- pH-value
- Redox (ORP)
- Ammonia
- Nitrate
- Chloride
- Ammonium
- Sodium
- Calcium
- Fluoride
- Potassium
- Chlorophyll a
- Cyanobacteria
- Rhodamine WT
- Turbidity
  - total suspended solids(TSS)