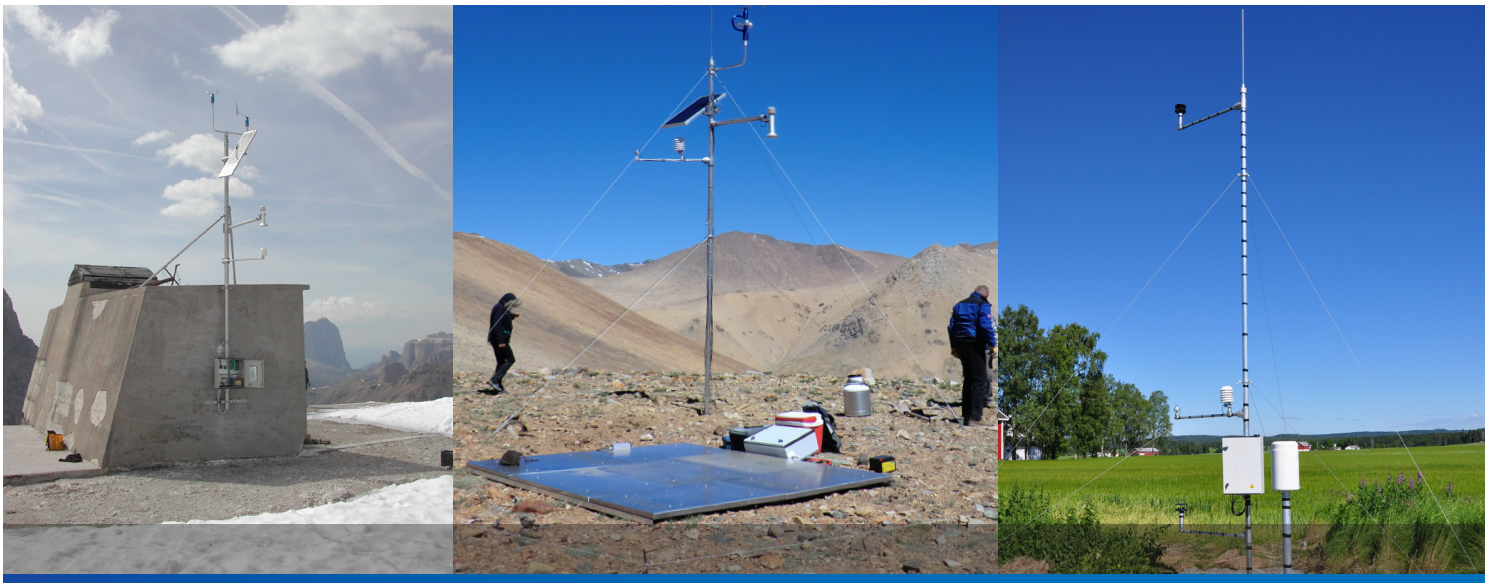
SEBA HYDROMETRIE

Automatic Weather Station Type AWS

with Meteorological Sensors

- WMO Compliant
- Robust weather station consisting of meteorological sensors, SEBA measuring data collector, data transmission (optional), independent power supply, protective housing and a mast
- Sensors: precipitation, air pressure, air temperature /humidity, wind direction /speed, soil temperature, global radiation, evaporation, snow depth, snow scales, snow temperature, etc.

ISO 9001:2015 QZV We are certified Quality is our standard

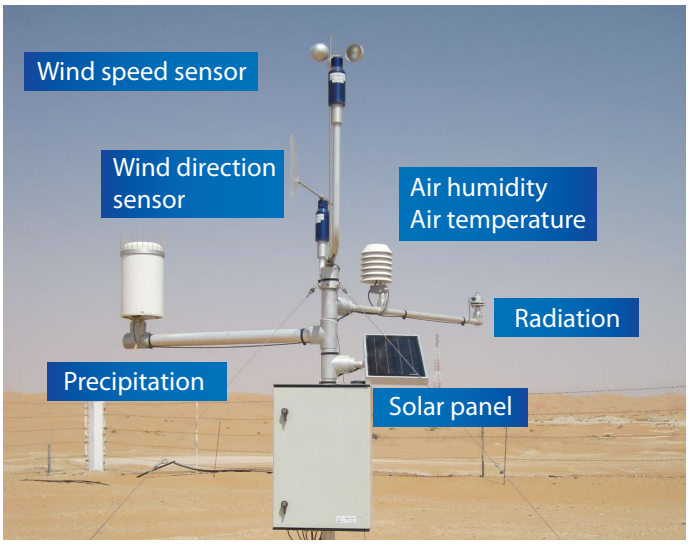


Meteorological Sensors

Worldwide climatic data are collected for calculating hydrology and energy balance. These data form the basis for hydrological predictions, water balance research and resource management.

An automatic weather station (AWS) stores the data continuously in a data logger (e.g. MDS-5) which offers also the possibility to transmit the data via the GSM-, GPPRS-, Radio-, W-LAN-, or Satellite-network from remote areas. SEBA sensors correspond to the standards of the World Meteorological Organization (WMO) and our concepts are continuously improved.

The configuration of an AWS may vary due to the purpose of the system but typically consists of a weather-proof enclosure containing the data logger (e.g. MDS-5), rechargeable battery and telemetry (optional), meteorological sensors, solar panels and a mast.



UnilogCom

Data logger for the storage and data transmission of analogue and digital values

- Wide-ranging applications, high capacity, multi-channel data logger with integrated cellular modem
- Large 16 MB ring memory for 1,120,000 measurements
- Compact plastic housing for wall mounting
- Backlit LCD with three multi-function buttons to display current measured values and system state
- Transfer Options: mobile data retrieval, FTP Push, TCP push, SMS push, SMS Alarms
- Connectivity of digital and analog probes

Technical data see brochure UnilogCom

Combined Ultrasonic Wind Sensor

Wind Direction Sensor / Wind Speed Sensor

Output frequency:	1, 2, 4 Hz outputs per second
Wind speed measuring range:	0-60 m/s, resolution 0,01 m/s
Wind direction measuring range:	0-359° no dead band, resolution 1°
Operating temperature:	-35 ºC to +70 ºC
Digital interfaces (optional)**:**	RS 232 / RS 422 / RS 485 / SDI-12
NMEA O/P (protocol):	yes
Analogue outputs (optional)**:**	2
Protection class:	IP 65
Material:	Luran (plastic)
Dimensions/hole for mast fixing:	142 x 160 mm / 44.45 mm

Wind

Wind direction sensor

Wind speed sensor:	measuring range: 0-75 m/s
Output:	4-20 mA
Dimensions:	212 mm diameter, height 130 mm

Wind speed sensor

Wind direction sensor:	angle of rotation 0 - 360°
Output:	4-20 mA
Dimensions:	226.4 mm diameter, 181 mm total height

Air humidity -/ Air temperature sensor

For measuring the relative air humidity and - temperature (also available as separate sensors)

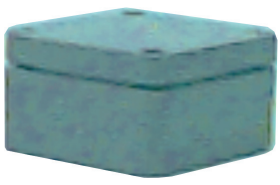
	Humidity:	**Temperature:**
Measuring range:	0 - 100 % r. h. other ranges on request	-40 °C up to +60 °C other ranges on request
Principle:	capacitive	resistive
Resolution:	0.1 % rel. hum.	0.1 °C
Accuracy:	± 2.5 % (10 % - 96 % r.h.)	± 0.3 °C (20 °C)
Operation-temperature:	-40 °C up to +60 °C	-40 °C up to +60 °C
Power supply:	3.6 - 30 VDC	3.6 - 30 VDC
Output:	0-1 V	0-1 V
Mounting bracket material:	aluminium	aluminium
Dimensions:	Ø 12, length 140 mm	Ø 12, length 140 mm

Atmospheric pressure

Pressure sensor, for measuring the atmospheric pressure between 700 - 1200 mbar

Measurement principle:	Absolute pressure	
Measuring range:	10-1100 hPa	
Measuring accuracy:	**Absolute accuracy:**	± 1,5 hPa (700… 1100 hPa, 25 °C)
	Relative accuracy:	± 0,5 hPa (700… 1100 hPa, 25 °C)

Temperature error:	±1 hPa, 0…+50 °C, +3/-1 hPa, -40 °C…+85 °C
Output:	4-20 mA



Soil temperature

Soil temperature sensor, for measuring the soil temperature in different depths

Material:	plastic
Accuracy:	0.3 °C
Power supply:	5 - 24 VDC

Operation depths:	20 / 30 / 60 / 110 / 160 / 210 / 310 mm
Measuring range:	-30 °C up to +70 °C or other ranges
Output:	0 - 100 mV

Precipitation

Rain gauge type RG 50

High accurate rain gauge with impulse output, pick-up for datalogger-systems and remote transmission installations, unilateral ball-beared tipping bucket with level and levelling screw. Optionally with heating.

Collecting area:	200 cm^2
Resolution:	1 pulse = 0,1 mm precipitation
Heating:	17 W, 24 V, forward break-over point +4 °C, overlap +3 °C
Contact burden:	3 W
Switch direct voltage:	150 V

Switch direct current:	0.25 A
Output:	reed-contact impulse (potential free)
Tipping bucket:	plastic material
Dimensions:	height 346 mm, diameter 205 mm
Weight:	3.9 kg

For precipitation recording further 8 measuring systems are available. Please ask for separate leaflet.

Radiation

Global radiation sensor for measuring the global radiation in spectral range 0,3 - 3µm

Spectral range:	305 ... 2800 nm
Temperature:	-40 ... +80 °C
Measuring range:	0 ... 2000 Wm^2

Temperature dependence:	< 0.15 %/°C
Output:	approx. 15 µV $W^{-1}m^2$

Evaporation

Evaporation pan „Class A“

For measuring evaporation. With lateral float tube. The integrated precision sensor gives an electrical signal, analogically to the water level of the pan.

Measuring range:	0 - 150 mm
Accuracy:	1 mm
Temperature operation range:	0 -70 °C
Power supply:	5 - 24 V

Output:	0 - 1 V optional 0 - 5 kOhm
Material:	V2A anticorrosive steel
Dimensions:	Ø 1206,5 mm, 254 mm height
Float tube:	Ø 346 mm, 1000 mm height

The right is reserved to change or amend the foregoing technical specification without prior notice.

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