# Automatic Weather Station (AWS)

## Robust, durable weather stations for recording diverse meteorological data

The automatic weather station is made for measuring several meteorological parameters. It is designed and built for the long-term use under extreme weather conditions without any infrastructure. The AWS can be equipped with diverse sensors according to the specific customer requirements. SOMMER places great emphasis on highest quality and is specialised for weather stations in alpine and high alpine environments.

### Features and advantages

- Customized, individual sensors
- Integration in existing measuring networks, displaying of the data in the webbrowser
- Qualified service from planning, consulting to installation and servicing of the station
- Equipped with solar panel for autark operation in high alpine environment with data logging and data transmission

### Fields of application

The weather station is used everywhere, where a comprehensive picture of the local weather conditions is gathered over a longer period of time. Meteorologists, weather services, avalanche warning services or diverse environmental commisions in the whole german speaking alps region rely on SOMMER technology. Also the weather stations are used to protect important infrastructure such as roads and rail lines.

### Implementation

The weather station can be delivered as complete solution, installed and activated. High quality components and material assure a long-term all-year-round operation. The decentral stations are connected with a central data collection or saves the data in an integrated logger. Furthermore, a GSM/GPRS connection can be established to the station. The basic option is an automatic weather station with measuring, gathering, transferring, transmitting, archiving and visualizing the measuring results. Besides the individual sensors also a 5 m mast, hot-galvanized with climbing rungs and climbing protection, an energy supply via solar panel as well as a switch cabinet with data logger and lightning protection is installed as a standard.

**Installation, service & support**

SOMMER commands a team of highly qualified and experienced service technicians. If wanted by the customer our service technicians do undertake the installation, training and ongoing servicing of the stations. Operation in high alpine terrain and installation with support of helicopters is not seldomly done. More than 20 years of experience in construction and installation of weather stations in alpine environment help us to give the best support for the customer.

**From small to professional - configuring the AWS**

Individual configuration of the station according to local needs and measurement requirements - the customer decides:

- Wind measuring spot, snow measuring spot, special constructions
- Portable station - compact and very low energy consumption, on tripod
- Mobile station on car trailer
- Weather station professional for higher demands
- Mast height 1 ... 10 m
- Reinforced alpine version for extreme conditions
- Integration of the weather station in existing measuring networks
- Weather station combined with water level measurement/ discharge measurement

## Possible sensors

- Air temperature [°C]
- Humidity [% r.h.]
- Wind direction [degrees]
- Wind speed [m/s] and peak [m/s]
- Air pressure [mbar/hPa]
- Global radiation [W/m²]
- Radiation balance [W/m²]
- Precipitation [mm]
- Rain yes / no
- Soil temperature [°C]
- Soil humidity [% r.h.]
- Evaporation [mm/day]

## Data transmission

Diverse possibilities for data transmission and parameterisation are offered, as the most economic version the "GPRS - Webserver" is recommended.

- Fixed line via analogue- / ISDN-modem
- GSM data transmission
- GPRS data transmission to WEB server: measuring results available always and online via Internet (web browser)
- Radio transmission