

Extreme Sensing

**Equipment, Sensors & Services
for snow/ice measurement**

Snow depth sensors

USH-9..... 4

LSH-10..... 5

SWE Sensor

SSG-2 6

SPA-2 7

SWA 8

LWC

SMA-2 9

Snow Movement

SND 10

SGE-20 11

Snow Temp

SIR-10..... 12

SCA..... 13

ICE Sensors

IDS-20 14

IDS-30 15

Data logger

MRL/MRL-IE..... 16

HDL 17

Automatic Weather Station 18



Company Overview

SOMMER Messtechnik is a measurement technology specialist with more than **40 years of experience** in environmental monitoring and sensor systems. The company develops, produces and markets sensors, instruments and complete measurement solutions for data acquisition, transmission and evaluation in fields such as **hydrology, meteorology, water management, sewage and geotechnics**.

Founded in **1987 by Wolfram Sommer**, the business began with early projects in hydrography and meteorology and grew into an independent company in 1997. In 2013, the company adopted the name to **SOMMER Messtechnik** and expanded its reach globally while remaining family-managed.

Over the decades, SOMMER has introduced a series of **innovative technologies**, including radar sensors for non-contact level and discharge measurement, advanced data loggers, and systems for remote monitoring in harsh environments. Milestones include early

avalanche and landslide monitoring systems, Doppler radar technology for flow measurement, tracer systems for discharge measurement, and the SQ series for wastewater flow.

The company's mission emphasizes **understanding the environment to measure it reliably**. SOMMER aims to deliver solutions that are robust, accurate and practical for real-world monitoring challenges. Team experience, a quality-focused approach and a spirit of innovation guide product development and customer support.

SOMMER's solutions are used worldwide in applications such as **river and channel monitoring, sewage networks, weather stations, flood early warning, snow measurement and environmental research**. The company continues to be a trusted partner for customers needing dependable measurement technology and data systems across disciplines.



Technology	Ultrasonic sensor
Purpose	Snow depths
Mobility	Stationary

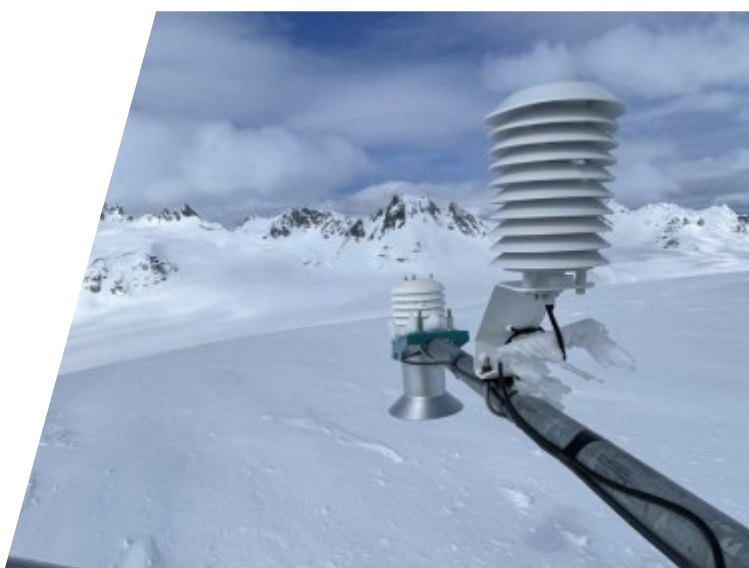
The USH-9 is an ultrasonic sensor for precise, continuous, and non-contact snow depth measurement. Its robust design, sealed ceramic membrane, and extremely low energy consumption make it an ideal solution for the most demanding weather conditions — from alpine valleys to high-alpine terrain. As the next-generation successor to the USH-8, it brings enhanced interfaces, smarter signal processing, and built-in precipitation detection to every deployment.

Advantages

- ❑ Continuous, non-contact measurement
- ❑ Built for extreme conditions: sealed ceramic membrane with protective shield
- ❑ High accuracy through integrated temperature compensation and intelligent spectral analysis filtering
- ❑ Energy-saving sleep mode between measurements

Fields of application

- ❑ Avalanche warning services and risk forecasting
- ❑ Alpine and high-alpine meteorological monitoring stations
- ❑ Ski resorts and winter road weather monitoring systems
- ❑ Energy sector applications, including hydro-power planning and flood protection



Dimensions	Ø 180 × 320 mm
Total weight	1.2 kg
Protection	Housing & cable connectors: IP66; Ultrasonic head: IP68
Power supply	9...28 VDC
Power consumption	Sleep mode: < 0.4 mA; Active measurement: typically 40 mA
Operation temperature	−41 °C to +60 °C (−42 °F to +140 °F)
Measurement range	0...10 m; Resolution 1 mm
Near blanking distance	0.7 m
Miscellaneous	Integrated lightning protection (0.6 kV peak); Maintenance interval ≥ 36 months



Technology	Laser sensor
Purpose	Snow depths
Mobility	Stationary

The LSH-10 is a next-generation laser snow depth sensor that delivers precise, reliable, and maintenance-free measurements with millimeter resolution. Based on opto-electronic laser rangefinder technology, it combines unmatched accuracy with a robust, weatherproof design built for the most demanding environments. With intelligent heating, ultra-low power consumption, and seamless integration into existing monitoring networks, the LSH-10 sets a new standard for non-contact snow depth measurement.

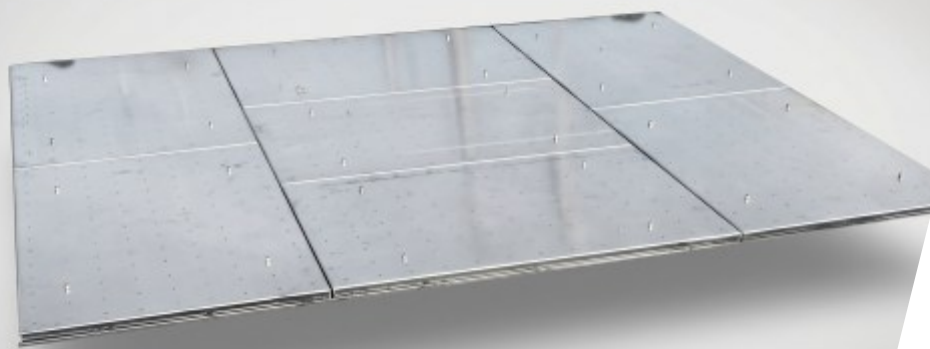
Advantages

- ❑ Millimeter-accurate, non-contact snow depth measurement over distances up to 10 m
- ❑ Reliable operation in extreme conditions (-40° C to +50°C), including snowfall, snow drift, and complex sun reflections in high alpine areas
- ❑ Smart heating system for the laser module and front lens — activates only when needed, minimizing energy use
- ❑ Ultra-low power consumption (10 mAh/day at 15 min intervals) with automatic sleep mode, enabling solar-powered autonomous operation
- ❑ Easy integration into existing monitoring stations via SDI-12, RS-485, or optional 4–20 mA analog interface

Fields of application

- ❑ Alpine meteorological stations and automatic weather stations
- ❑ Avalanche warning services
- ❑ Ski area monitoring and winter road services
- ❑ Autonomous remote monitoring sites with solar power supply

Dimensions	Length 300 mm, Ø 90 mm
Total weight	1.2 kg
Protection	IP 66; lightning protection
Power supply	9 ... 27 VDC
Power consumption	10 mAh/day; sleep mode <0.4 mA; active (without heating) ≈ 40 mA
Operating temperature	-40°C ... +50°C (without heating: -10°C ... +50°C)
Measurement range	0 ... 10 m
Miscellaneous	laser class II; laser power <1 mW; measurement angle 0–30°; SDI-12, RS-485 (ASCII/Modbus RTU), optional 4–20 mA analog



Technology	Sensor
Purpose	SWE
Mobility	Stationary

The SSG-2 is a precision snow scale designed for continuous, reliable measurement of the Snow Water Equivalent (SWE) of a snow pack. Built from lightweight, durable aluminium, it features seven perforated panels forming a total measuring surface — significantly larger than a conventional snow pillow. Its modular design enables quick field installation with no site preparation required, and unlike traditional solutions, the SSG-2 requires no antifreeze, making it a clean and environmentally responsible choice.

Advantages

- ❑ Environmentally friendly — no antifreeze liquid required, safe for use in nature reserves and protected areas
- ❑ Perforated aluminium panels ensure optimal thermal flow and efficient melt water run-off
- ❑ Stable, durable aluminium construction with no measuring site preparation needed
- ❑ Easy system integration via multiple interfaces: SDI-12, RS-485 (ASCII and Modbus), and 4–20 mA analog output

Fields of application

- ❑ Hydrological monitoring and snow water equivalent (SWE) assessment
- ❑ Flood protection and early warning systems
- ❑ Water management and reservoir planning
- ❑ National weather services and environmental authorities
- ❑ Research institutes and universities working on snow and climate studies
- ❑ Natural reserves and ecologically sensitive areas where antifreeze-free operation is required

Dimensions	2800 × 2400 × 103 mm
Total weight	130 kg
Protection	IP 68
Power supply	10 ... 30 VDC
Power consumption	max. 70 mA active; < 1 mA in sleep mode
Operating temperature	–40 ... +80 °C
Measurement range	0 ... 1,000 / 2,000 / 3,000 mm
Miscellaneous	Integrated improved lightning protection; max. inclination 5°; resolution 0.1 kg/m ²



Technology	Sensor
Purpose	Snow water equivalent
Mobility	Stationary

The SPA-2 Snow Pack Analyzer is an automatic, continuous monitoring system that records all key parameters of a snowpack — snow water equivalent (SWE), snow density, liquid water content, ice content, and snow depth. The latest product generation introduces a completely new, user-friendly control interface, simplified analogue sensor connectivity, and standardized data output via RS-485 or SDI-12 interface. Designed for autonomous operation even in remote alpine environments.

Advantages

- ❑ Records all critical snowpack parameters simultaneously: SWE, snow density, liquid water content, ice content, and snow depth
- ❑ Energy-saving sleep mode enables solar-powered, off-grid operation at remote sites
- ❑ Flexible system configuration — monitor the full snowpack or target specific profile depths
- ❑ Area-averaged measurements along the full sensor strap length deliver representative, spatially reliable data

Fields of application

- ❑ Hydropower companies monitoring snowmelt to forecast water availability and optimize reservoir management
- ❑ Flood protection authorities requiring early detection of snowmelt onset and runoff volumes
- ❑ Water management and irrigation planning in the agricultural sector
- ❑ Avalanche warning services tracking liquid water content build-up in the snowpack

Dimensions	Frame: 6,360 × 1,100 × 3,700 / 5,700 mm
Total weight	110 / 115 kg
Protection	Sensors: IP 66; Controller: IP 54
Power supply	9–28 VDC; with reverse voltage and overvoltage protection
Power consumption	Active: max. 65 mA @ 12 V; Sleep mode: 1 mA @ 12 V
Operating temperature	–35 °C ... +60 °C
Measurement range	Snow depth: 0–2.5 m / 0–5.0 m (±2 cm); SWE: 0–1,000 / 0–3,000 mm H ₂ O (±5% FS); Density: 0–1,000 kg/m ³ (±5% FS); Volumetric water & ice content: 0–100% (±2% FS)
Miscellaneous	Up to 4 SPA sensor straps; RS-485, SDI-12, analogue 4–20 mA (14-bit)



Technology	Sensor
Purpose	Snow water
Mobility	Stationary

The SWA (Snow Water Analyzer) is a revolutionary instrument for the automatic, continuous measurement of two critical snowpack parameters: Snow Water Equivalent (SWE) and Liquid Water Content (LWC). Leveraging GNSS signal technology, it delivers aerial, non-contact readings of the snowpack state with high temporal resolution. The system seamlessly integrates into new or existing weather stations and significantly reduces the need for costly and hazardous manual fieldwork in wintry terrain.

Advantages

- ❑ Non-contact, fully automatic measurement of SWE and LWC — no manual intervention required
- ❑ No site preparation or construction work needed — installs on existing masts
- ❑ Not affected by ice bridging — delivers reliable data even in challenging winter conditions
- ❑ Low power consumption with sleep mode (0.001 W), ideal for solar-powered remote stations

Fields of application

- ❑ Water supply & hydropower — run-off predictions and expected water quantities during snowmelt
- ❑ Flood prevention authorities — early-warning data on snowpack water content and saturation point
- ❑ Agriculture & mining — forecasting meltwater infiltration into soil and surface run-off volumes
- ❑ Alpine communities & ski resorts — liquid water content monitoring for wet snow avalanche risk assessment

Dimensions	Analyzer: 200 × 185 × 100 mm; Antenna: 38 × 38 × 12 mm; Ground plate: 160 × 160 × 15 mm
Total weight	8 kg
Protection	IP64; integrated lightning protection (0.6 kV peak discharge capacity)
Power supply	10...16 VDC
Power consumption	Sleep mode: 1 mW (0.001 W) / Active measurement: typically 5 W
Operating temperature	−40...+50 °C
Measurement range	Snow depth: up to 5 m; SWE: 0...3000 mm; LWC: 0...15%
Miscellaneous	RS-485 ASCII / Modbus RTU, SDI-12, 2 × analog 4...20 mA



SMA-2



Technology	Sensor
Purpose	Snow melt
Mobility	Stationary

The Snow Melt Analyzer SMA-2 is the ideal measuring solution for the automatic and continuous analysis of snowmelt processes. It detects changes within the snow pack in real time and determines the expected water run-off — providing reliable, actionable data for flood forecasting and water management. Combining the proven technologies of the SPA-2 snow pack analyzer and the SSG-2 snow scale in a single integrated system, the SMA-2 delivers a comprehensive picture of snow conditions from a single ground-level installation.

Advantages

- ❑ Reliable forecast of water run-off during snowmelt — valuable input for flood early warning systems
- ❑ Early detection of increasing liquid water content in the snow pack — catching the onset of melt before run-off begins
- ❑ No calibration required — realistic representation of measured snow parameters right out of the box
- ❑ Low power consumption with solar-powered operation possible — ideal for remote alpine stations

Fields of application

- ❑ Flood and avalanche warning services
- ❑ Hydropower plant operators and water reservoir management
- ❑ Water management authorities and environmental agencies
- ❑ Hydrologists and research institutes studying snowmelt dynamics
- ❑ Agricultural sector and mining operations dependent on seasonal water availability

Dimensions	Aluminium frame: 3,000 × 600 mm; Switch cabinet: 70 × 100 × 55 mm
Protection	IP 65
Power supply	10.5 ... 15 VDC
Power consumption	Operating mode: max. 50 mA (for 5 sec.); Stand-by: < 2 mA
Operating temperature	−35 °C ... +80 °C
Measurement parameters	Liquid water content, ice content, air content
Miscellaneous	SDI-12, RS-485, RS-485 Modbus



Technology	Sensor
Purpose	Snow drift intensity
Mobility	Stationary

The SND is an extremely robust sensor designed to determine snow drift intensity in the harshest environments. It measures solid particle flux intensities and wind speeds using a totally sealed acoustic system with no moving or optical parts. The sensing element is a cylindrical, anti-abrasion, anti-adhesion and anti-rime coated tube mounted on two sturdy stainless steel arms — built to withstand the most demanding field conditions. The amount of snow drift is returned in $\text{g/m}^2/\text{s}$, a unit that indicates how much snow has been transported onto a road or an exposed slope.

Advantages

- ❑ Maintenance-free with a special design that resists the highest winds, extreme temperatures, rime, sunlight, abrasion, ashes and even temporary submersion
- ❑ No moving or optical parts — no wear and tear, no mechanical degradation over time
- ❑ Very low power consumption: less than 1 mA in stand-by and only 2.1 mA for nominal continuous operation (10% duty-cycle)
- ❑ Lightweight, corrosion-free, UV/Ozone stable and resistant to shock, vibration, lightning, humidity and insects
- ❑ Flexible connectivity — compatible with analog and digital central units, long extension cables (up to ~200 m), IoT/LPWAN transceivers and industrial control systems (BMS, SCADA)

Fields of application

- ❑ Detection and monitoring of snowdrift and snow-blowing events
- ❑ Avalanche prediction and slope safety monitoring
- ❑ Road and railway safety monitoring in winter conditions
- ❑ Cable transportation safety monitoring
- ❑ Meteorological and scientific research applications

Dimensions	Ø 40 mm × height 1040 mm (bracket: 750 mm)
Total weight	4 kg (sensor)
Protection	IP67
Power supply	6–30 V DC
Power consumption	< 1 mA stand-by; 20 mA max. acquisition
Operation temperature	–40 °C to +80 °C
Measurement range	Particle flux: 0–250 $\text{g/m}^2/\text{s}$; Wind speed: 0–250 km/h
Miscellaneous	SDI-12, RS-232 TTL, Modbus RTU RS485 (optional adapter)



Technology	Sensor
Purpose	Snow sliding movement
Mobility	Stationary

The SGE-20 is a potentiometric snow glide encoder designed to measure the sliding movement of the snowpack on slopes. By continuously recording glide distances, the sensor enables valuable deductions about the relationship between slope surface conditions, terrain inclination, and the behavior of the snowpack. Housed in a robust aluminium enclosure, the SGE-20 is built to withstand harsh alpine environments and cold temperatures, making it a reliable long-term monitoring instrument.

Advantages

- ❑ Precise measurement of snowpack sliding movement across distances up to 21.5 m
- ❑ Recognition of the influence of ground surface conditions on the snowpack behavior
- ❑ Robust aluminium housing, purpose-built for use in snow and extreme cold
- ❑ Reliable data output with easy integration into existing monitoring and data logger systems
- ❑ Minimum energy consumption — ideal for remote and solar-powered stations

Fields of application

- ❑ Environmental and forestry commissions monitoring slope integrity
- ❑ Flood and avalanche warning services requiring early detection of snowpack movement
- ❑ Geologists and geotechnical engineers assessing slope surface conditions
- ❑ Planning and evaluation of protective measures (e.g., afforestation) on endangered slopes
- ❑ Integration into automatic weather stations for comprehensive snow monitoring

Dimensions	200 × 100 × 85 mm
Total weight	0.4 kg
Protection	IP 67
Power consumption	max. 2 W
Operation temperature	−25°C ... +85°C
Measurement range	0 ... 21.5 m
Miscellaneous	Precision resistance wire potentiometer; resolution 232 Ω/m; fine stainless steel cable 7×8, Ø 0.4 mm; integrated slip clutch for overload protection



Technology	Sensor
Purpose	Snow surface temperature
Mobility	Stationary

The SIR-10 is a compact, highly sensitive infrared temperature sensor that delivers exact, contact-free measurements of snow surface temperature. Designed for reliable continuous operation even under harsh climatic conditions, it integrates seamlessly into automatic weather stations and existing monitoring networks. The stainless steel IR sensor is mounted in a radiation shield, while all evaluation electronics are housed in a rugged die-cast aluminum enclosure.

Advantages

- ❑ Highly sensitive infrared measurement with ± 1 °C accuracy and 50 mK resolution
- ❑ Fully non-contact — no physical disturbance of the snow surface, continuous and reliable data
- ❑ Robust stainless steel sensor casing with separate die-cast aluminum electronics box
- ❑ Proven performance under harsh alpine and high-alpine climatic conditions
- ❑ Easy integration into new and existing monitoring systems via analog output

Fields of application

- ❑ Automatic weather stations — providing accurate surface temperature as a key meteorological parameter
- ❑ Avalanche warning services — detecting critical surface cooling events that alter snow crystal structure
- ❑ Winter tourism and ski resort management — monitoring snow surface conditions for slope safety
- ❑ Road and infrastructure winter services — monitoring surface freezing conditions

Dimensions	Sensor: 28×14 mm; Controller: 89×70×30 mm
Total weight	Sensor: 20 g; Controller: 280 g
Protection	IP65
Power supply	5...36 VDC
Power consumption	< 150 mA
Measurement range	-50...+50 °C
Miscellaneous	4–20 mA or 0–10 VDC; Accuracy: ± 1 °C or $\pm 1\%$; Includes radiation shield with mounting bracket, 5-pin signal cable, overvoltage/lightning protection (BSM)



Technology	Sensor
Purpose	Snow temperature profile
Mobility	Stationary

The SCA is a highly accurate snow and ground temperature sensor designed to capture the full thermal picture of a snowpack. Placed on the ground before the snow season begins, it measures temperatures simultaneously at multiple depth layers — delivering a complete, reliable temperature profile from the ground surface upward. The sensor is trusted by institutions such as the Bavarian Avalanche Warning Service (LWD) to support risk assessment and snow condition monitoring.

Advantages

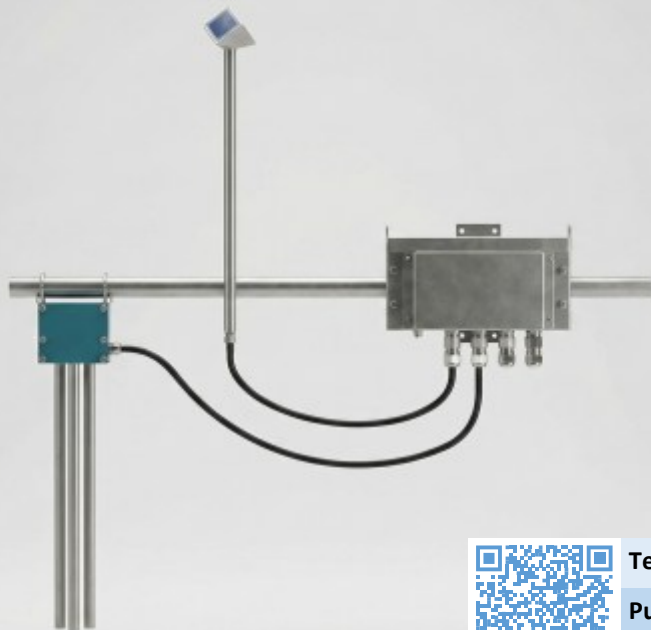
- ❑ Continuous recording of snow and ground temperatures at each individual profile depth
- ❑ Sensors always measure inside the snowpack, not ambient air — delivering true snow temperatures
- ❑ Simple installation and easy replacement
- ❑ Seamless integration into existing monitoring systems and weather stations

Fields of application

- ❑ Avalanche warning services requiring detailed snow temperature profile data
- ❑ Meteorological and weather stations monitoring snow conditions in mountain terrain
- ❑ Ski regions and winter sport communities tracking snow quality and surface conditions
- ❑ Environmental authorities and hydrology services analysing snowmelt processes
- ❑ Any monitoring network where a complete vertical temperature profile of the snowpack is required



Dimensions	Variable length × 130 mm sensor width
Total weight	1.8 kg
Protection	IP66
Power supply	8 × AA batteries
Power consumption	> 25 h continuous use (alkaline batteries)
Operation temperature	−20 °C ... +50 °C
Miscellaneous	Resolution: 0.1 °C; SCA Master option



Technology	Sensor
Purpose	Ice detection system
Mobility	Stationary

Ice threatens infrastructure across the globe — from icy runways and glazed power lines to frozen wind turbine blades and snow-laden antennas. The IDS-20 is available in cube and rod sensor variants, it detects ice layers from as little as 0.01 mm up to 80 mm, making it the first system of its kind to span such a wide measurement range. Its modular design — built around a central controller and up to two sensors — allows the system to be precisely tailored to the demands of each specific application.

Advantages

- ❑ Continuous, non-contact ice thickness measurement from 0.01 mm to 80 mm
- ❑ Reliable distinction between water and ice via complex impedance analysis
- ❑ Built-in plausibility check using air temperature, humidity, dew point, and frost point data
- ❑ Flexible sensor combinations — cube and rod sensors adaptable to virtually any application
- ❑ Maintenance-free operation with low power consumption

Measuring Principle

The IDS-20 measures the complex impedance in the medium surrounding the sensor. Because air, water, and ice each exhibit distinct physical characteristics at varying frequencies, this method allows the system to reliably distinguish between water and ice and to detect the onset of ice formation.

Fields of application

- ❑ Aviation — detection of ice accretion on runways, aircraft, and aeronautical infrastructure
- ❑ Wind energy or Power transmission
- ❑ Transport infrastructure or Cable cars and ropeways
- ❑ Structures and antennas

Dimensions	318 × 208 × 132 mm
Total weight	3.6 kg
Protection	IP 66
Power supply	Sensors: 10–28 VDC Heating: 24 VAC/VDC
Power consumption	Measurement: 50 mA at 12 VDC Heating: max. 7 A at 24 VAC/DC
Operation temperature	–40 °C to +60 °C
Measurement range	Ice thickness: 0.01–1 / 0.1–5 mm (Cube 1/5), 1–80 mm (Rod 80) Air temperature: –40...+60 °C Humidity: 0–100%
Miscellaneous	RS-485 (Modbus / ASCII), SDI-12; 3× relay outputs (rain, ice, heart-beat)



Technology	Sensor
Purpose	Ice conditions & growth
Mobility	Stationary

The IDS-30 is a reliable and precise ice detection system designed to measure icing conditions and ice growth across a wide range of applications. The system supports up to two sensors simultaneously — a Cube sensor for detecting thin icing events from 0.2 mm to 2 mm and a Rod sensor for monitoring total ice thickness from 1 mm to 40 mm — making it the second non-contact ice detection system on the market capable of covering the full range from 0.2 mm to 40 mm.

Advantages

- ❑ Continuous, non-contact ice measurement across a wide range
- ❑ Reliable distinction between water and ice, with plausibility check for verified measurement results
- ❑ Easy installation and seamless integration into existing monitoring and control systems via multiple interfaces
- ❑ Maintenance-free operation with low power consumption and an integrated heating system for continuous use in harsh winter conditions

Fields of application

- ❑ Wind power turbines
- ❑ Road and weather forecasting services
- ❑ Cableways, railways, and trams
- ❑ Infrastructure monitoring — masts, towers, antennas, and power lines
- ❑ Condition monitoring in industrial and remote installations requiring autonomous, low-maintenance ice detection

Dimensions	1055 × 133 × 133 mm
Total weight	3.5 kg
Protection	IP 66
Power supply	Sensors: 10–28 VDC; Heating: 24 VAC/VDC
Power consumption	Active measurement: 50 mA at 12 VDC; Heating: max. 7 A at 24 VAC/DC
Operation temperature	–40 °C to +60 °C
Measurement range	Cube sensor (IDS-30c): 0.2–2 mm Rod sensor (IDS-30r): 1–40 mm
Miscellaneous	RS-485 (ASCII / Modbus), SDI-12, LoRa (option); 3× relay outputs (rain, ice, heartbeat)



MRL-8 / MRL-IE

Weatherproof data loggers
with integrated data transmission



Technology	Datalogger
Purpose	Depends on the sensor
Mobility	Stationary

The MRL-8 is a weatherproof, battery-operated data logger with integrated 4G modem for collecting, processing, storing and transmitting environmental monitoring data. Combined with the MRL-IE input extension module, the system delivers a complete, scalable data acquisition solution for the most demanding field conditions.

Advantages

- ❑ Compact and robust data logger for long-term operation
- ❑ Waterproof housing for outdoor installations
- ❑ Integrated mobile modem for remote data transmission
- ❑ Low power consumption for autonomous operation
- ❑ Wide range of sensor inputs and interfaces
- ❑ Integrated solar charging support

Fields of Application

- ❑ Hydrological and meteorological monitoring stations
- ❑ Surface water and groundwater level monitoring
- ❑ Water resource management — reservoirs, dams, irrigation systems
- ❑ Flood early warning and natural hazard management
- ❑ Industrial and agricultural environmental monitoring

MRL-8	
Dimensions	180 × 150 × 61/91/101 mm
Total weight	1.61 kg
Protection	IP67
Power supply	9...28 VDC; solar panel supply up to 40 W / 12 V
Power consumption	Active < 23 mA @ 12 V; standby < 0.6 mA @ 12 V
Operation temperature	−30 ... +60 °C
Interfaces	4x Analog, 2x Counter, Wind speed, Wind direction, 3x Switch output, RS-485, RS-232, USB, Bluetooth
Miscellaneous	8 MB internal memory, 2-5G modem, satellite radio

HDL-10

Portable measurement solution



The HDL-10 is a mobile data logger designed for temporary measurements and small measurement campaigns. It features rechargeable batteries and a USB-C interface for both data read-out and charging. The device focuses on simplicity and user-friendliness:

SOMMER HDL-10 probes can be connected via plug

-and-play and are automatically recognized through the device menu. Measurement data are recorded at a one-second interval and can be transferred to a PC via USB-C. When all connectors are connected, the handheld unit is IP68 protected.

Advantages

- ❑ Mobile data logger for temporary and field measurements
- ❑ Plug-and-play connection of HDL-10 probes
- ❑ One-second measurement and storage interval
- ❑ USB-C interface for data read-out and charging
- ❑ Numerical values and time series displayed on the device

Fields of application

- ❑ Temporary field measurements and short-term monitoring
- ❑ Mobile discharge measurements without permanent stations
- ❑ Hydrology and surface water monitoring
- ❑ Groundwater and wastewater measurements
- ❑ Harbors, river authorities and hydropower plants

Probes

- ❑ Temperature (PT1000)*
- ❑ Solar radiation*
- ❑ Snow Temperature*
- ❑ Soil water content, soil temperature and electrical conductivity*
- ❑ Air Temp and Humidity and Air Pressure*
- ❑ Pressure measurement with air hose inside
- ❑ Conductivity measurement
- ❑ Velocity* (Ultrasonic based with PV)

*Currently in development





Technology	Radars/Sensors
Purpose	Solution
Mobility	Stationary

The SOMMER Automatic Weather Station (AWS) is a robust, durable solution for recording diverse meteorological parameters over the long term — even in the most demanding environments. Built with high-quality components and materials, it ensures continuous, year-round operation without any local infrastructure, making it the go-to choice for alpine and high alpine terrain. The AWS can be delivered as a complete, ready-to-install solution and configured individually to meet specific measurement requirements — from a compact portable station on a tripod to a fully equipped professional weather station on a 10 m mast.

Fields of Application

- ❑ Meteorological services and national weather monitoring networks
- ❑ Avalanche warning services requiring reliable real-time snow and weather data
- ❑ Protection of critical infrastructure such as roads, rail lines, and power supply systems
- ❑ Environmental authorities and commissions monitoring alpine ecosystems
- ❑ Research institutes and universities conducting long-term climate and snow studies
- ❑ Ski regions and winter sports communities tracking local weather and snow conditions

Advantages

- ❑ Tailor-made sensor configuration covering snow depth, snow surface temperature, air temperature, wind, humidity, radiation, and more
- ❑ Solar-powered autonomous operation — ideal for remote high alpine locations with no power infrastructure
- ❑ Seamless integration into existing measuring networks with data accessible anytime via web browser
- ❑ Scalable and flexible setup — from a portable tripod station to a reinforced alpine professional version
- ❑ Full-service support from planning and consulting through to installation and ongoing maintenance by experienced technicians

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]
- ❑ Icing / ice thickness

Data transmission

Diverse possibilities for data transmission and parameterisation are offered:

- ❑ 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



AWS portable

The AWS shines wherever permanent installation is not an option or meteorological monitoring needs to move with the job. Its low weight, straightforward handling, and quick setup make it a practical choice for fieldwork at changing locations.

The standard layout of the portable AWS can be freely modified and combined with a wide range of additional sensors — giving you maximum flexibility for any application. Since the station is exposed to all weather conditions at all times, every component is built to last: all parts are corrosion-resistant and waterproof, and all inputs are surge-protected.

www.sommer.at



Sommer Messtechnik

Straßenhäuser 27,
6842 Koblach, Austria
+43 5523-55989
office@sommer.at