



BROCHURE

# Weather Backpack

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# What is Weather Backpack?





#### KEY FEATURES

### Precision and reliability when it matters

Maximum mobility for temporary measurement campaigns

### Meteorological research quality

Designed for the most rigorous scientific and governmental applications

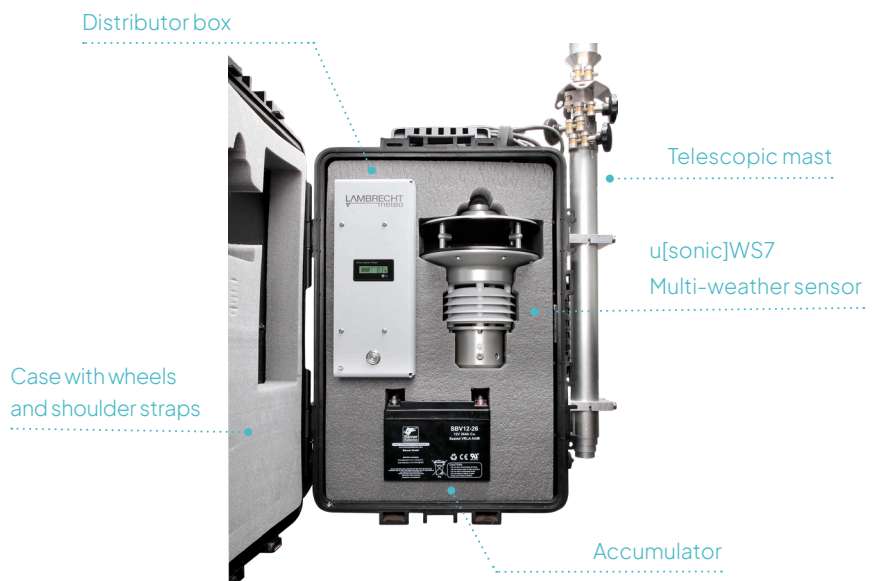
### Reliable sensor technology for all critical applications

## What is Weather Backpack?

It's the compact weather station you can use anywhere, anytime. The all-in-one Weather Backpack goes wherever you go.

Weather Backpack is the professional automatic Weather Station (AWS) for temporary measurement campaigns. The mobile station measures all relevant meteorological parameters. Its outstanding measurement quality, reliability, and durability stand up to the most strenuous and important measurement campaigns, such as those carried out in research science and government weather monitoring. The weather station can be stowed easily in its carrying case and transported quickly from one location to another. Since Weather Backpack is portable, even large areas can be covered.

The system features high-quality sensor technology for any critical application that requires continuous monitoring and analysis of specific weather parameters. Whether it's disaster monitoring, ensuring safety at sporting events, or climate research, Weather Backpack is wherever you need to be to capture weather data.



# Application examples

# Application examples



## 1. INDUSTRIAL EMISSIONS

Businesses need accurate and reliable data on ambient conditions to monitor emissions thresholds and environmental impact.

## 2. DISASTER CONTROL

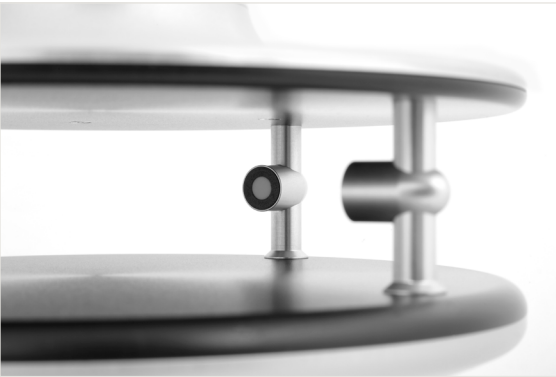
A rapidly deployable dense local weather measurement network provides accurate real-time values and supports on-site disaster recovery.



## 3. SPORT EVENTS

Local weather monitoring is the most important factor when it comes to the safe realization of sports events.

| A comprehensive  
| solution



## Up to seven parameters measurable

Wind speed, wind direction, air temperature, relative humidity, air pressure, global radiation, dew point\*.

(\* calculated value)

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## Includes ultrasonic wind sensor

For maintenance-free measurement of wind speed and wind direction

# A comprehensive solution

All the weather data you need from a single sensor. Easy installation to support rapid deployment.

Weather Backpack was developed and designed for easy use even under severe climatic conditions. The whole system is weatherproof and can be installed within minutes by one person. For the determination and monitoring of the measurement data, the u[sonic]WS7 multiparameter sensor connects using a single plug-and-play cable.

## BATTERY POWER FOR EIGHT DAYS

Using batteries, the Weather Backpack is ready to use for eight days; a solar panel is available optionally. When the station is connected to the power grid, the heater automatically turns on and off based on temperature. In both solar and power mode, the battery is automatically charged.





| Which u[sonic]  
| is the right one for you?

# Which u[sonic] is the right one for you?



## u[sonic]WS7 measures seven weather parameters in first-class research quality

Whether you're monitoring heat and humidity levels to protect individuals outdoors or measuring wind speed to determine impact on business operations, access to real-time, local weather conditions is critical. The u[sonic]WS7 professional grade weather station measures seven key weather parameters with one compact sensor that's built to withstand all types of weather and extreme environmental conditions.



Wind Speed  
& Direction



Air  
Temperature



Barometric  
Pressure



Air  
Humidity



Global  
Radiation



Dew  
Point

**THE STANDARD ISSUE  
WEATHER BACKPACK  
COMES EQUIPPED WITH THE  
U[SONIC]WS7 WEATHER  
SENSOR**

Alternatively, the original  
u[sonic]WS6 and classic  
u[sonic] sensors can be  
installed.

u[sonic] for two  
parameters: wind direction  
and wind speed

u[sonic]WS6 for six  
parameters: like u[sonic]  
additionally air temperature,  
relative humidity, air pressure  
and dew point (calculated value)

u[sonic]WS7 for seven  
parameters: WS6's parameters  
plus global radiation

Quick data access  
for informed decisions

# Quick data access for informed decisions

For a simple setup of the serial Lambrecht meteo sensors, the data logger met[LOG] comes with an autoconfiguration via plug-and-play. The integrated met[APP] visualizes measurement data conveniently in your web browser.

## OVERVIEW MET[LOG]

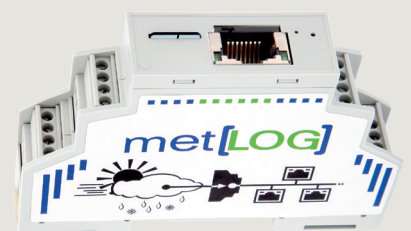
- Easy management of your weather data (wind direction, wind speed, relative humidity, temperature, air pressure, global radiation, precipitation) via Ethernet
- User-friendly due to external LAN connections at the case
- Real-time access to the measurement data via the integrated web server, visualized in your browser with met[APP].
- Calculation of trends and progressions, as well as automatic corrections of altitude and air pressure.
- Quick setup with automatic configuration at the push of a button.



## BROWSER-APP MET[APP]

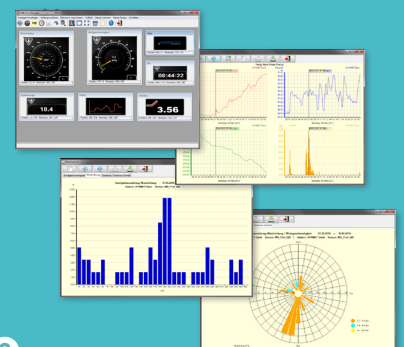
Our browser-based app is compatible with all common browsers, such as Google Chrome, Safari, Firefox, Edge, and Mozilla.

- Display real-time values from your Lambrecht meteo station on your PC, laptop, tablet, or smartphone
- Export the measured values stored by the met[LOG].
- Configure your met[LOG]



## MET[LOG] WITH MET[APP]

The data logger met[LOG] and the browser app met[APP] transfer your weather data quickly and easily to your local network.



## METEOWARE CS (OPTION)

MeteoWare CS is a modular, scalable meteorological evaluation software solution. The program package can be scaled from a simple single user system with one data logger up to a LAN/Internet distributed application with up to 999 users and up to 999 data loggers.

ID 00.95800.0100000	met[LOG] incl. SD card
Interface	3 x RS 485; A+, B-; half duplex; Modbus
Ethernet	10/100 BaseT; plug RJ45 shielded
Operating temperature	-40...+85 °C
EMC	IEC 61000-4-2 up to 8 kV
Weight	62 g
Web server	Integrated web page to display instantaneous values; configuration web page; data export

# Technical specifications and features



# Technical specifications and features

Weather Backpack is the customizable, portable weather station designed for use in the harshest environmental conditions. The system is extendable and can be equipped with a wide range of sensors to meet the requirements of specific applications. Feel free to contact us for individual setups!

Main Features		Weather Backpack ID 30.00852.000001	
Application area		Outdoor	
Environmental conditions		-40...+70 °C; 0...100 % r. h.	
Ethernet		10/100 BaseT; plug RJ45 shielded	
Battery life		Approx. 8 days	
Protection class		IP 66, IP 67	
Material		Case: Polypropylene; Mast: Aluminum	
Weight		Approx. 27 kg	
Height mast		Approx. 3 m	
Specifications in Detail			
Wind direction		Measuring range: 0...359.9° Accuracy: < 2° (> 1 m/s) RMSE Resolution: 0.1°	
Wind speed		Measuring range: 0...65 m/s Accuracy: ± 0.2 m/s RMSE (v < 10 m/s); ± 2 % RMSE (10 < v < 65 m/s) Resolution: 0.1 m/s	
Air temperature		Measuring range: -40...+70 °C Accuracy: ± 0.1 K (0...60 °C); ± 0.2 K (-40...0 °C) > 2 m/s Resolution: 0.1 °C	
Relative humidity		Measuring range: 0...100 % r. h. Accuracy: typically ± 1.5 % (0...80 %); ± 2 % (> 80 %) Resolution: 0.1 %	
Air pressure		Measuring range: 300...1100 mbar Accuracy: ± 0.5 mbar Resolution: 0.1 mbar	
Global radiation ("Second Class")		Measuring range: 0...2000 W/m²; Global radiation in the range of 285...3000 nm Resolution: 0,2 W/m²	
Dew point		Calculated value	



AEM  
12410 Milestone Center Drive  
Suite 300  
Germantown, MD 20876

[aem.eco](http://aem.eco)

LAMBRECHT meteo GmbH  
Friedlaender Weg 65-67  
37085 Goettingen, Germany

[lambrecht.net](http://lambrecht.net)

For more information, let's talk at:  
[info@aem.eco](mailto:info@aem.eco) or [info@lambrecht.net](mailto:info@lambrecht.net)

