



Compact all-in-one weather sensor for measurement of temperature, relative humidity, precipitation intensity, precipitation type, precipitation quantity and air pressure.

- **Parameters measured**
Temperature, relative humidity, precipitation intensity, precipitation type, precipitation quantity and air pressure
- **Measurement technology**
Ultrasonic/Wind, NTC/T, Capacitive/RH, MEMS capacitive/Pressure, 24 GHz Doppler radar/Precipitation
- **Product highlights**
Compact all-in-one weather sensor, low power, heater, aspirated radiation shield, maintenance-free operation, open communication protocol
- **Interfaces**
RS485, 2-wire, half-duplex
- **Article number**
8369.U01, 8369.U02

From the WS product family of professional intelligent measurement transducers with digital interface for environmental applications. Integrated design with ventilated radiation protection for measuring: Air temperature, relative humidity, precipitation intensity, precipitation type, precipitation quantity and air pressure. One external temperature sensor is connectable.

Technical Data

WS400-UMB Smart Weather Sensor



General	
Dimensions	Ø ca. 150 mm, height ca. 280 mm
Weight	Approx. 1.3 kg
Interface	RS485, 2 - wire, half - duplex
Power supply	4...32 VDC
Operating temperature	-50...60 °C
Operating rel. humidity	0...100 % RH
Heating	20 VA at 24 VDC
Cable length	10 m
Protection level housing	IP66
Mast mounting suitable for	Mast diameter 60 - 76 mm

Temperature	
Principle	NTC
Measuring range	-50 ... 60 °C
Unit	°C
Accuracy	±0.2 °C (-20...50 °C), otherwise ±0.5 °C (>-30 °C)

Relative humidity	
Principle	Capacitive
Measuring range	0 ... 100 % RH
Unit	% RH
Accuracy	±2 % RH

Air pressure	
Principle	MEMS capacitive
Measuring range	300 ... 1200 hPa
Unit	hPa
Accuracy	±0.5 hPa (0...40 °C)

Precipitation intensity	
Resolution	0.1 mm/h

Precipitation quantity	
Resolution	0.01
Reproducibility	Typical >90 %
Measuring range drop size	0.3...5 mm
Type of precipitation	Rain/snow