



New class of Smart Weather Sensors with high-quality aluminum housing: WS3000 Climate Reference Sensor for Calibration / Verification of Air Temperature, Relative Humidity, Air Pressure

- **Parameters measured**

Temperature, relative humidity, air pressure (redundant pressure as option)

- **Measurement technology**

PT100/Temp, Capacitive/RH, MEMS Resonant Pressure transducer

- **Product highlights**

high-quality full-metal construction with ventilated radiation shield for air temperature / humidity measurements, Traceable accuracy, Modular architecture, Drift-free sensing technologies, Easy maintenance and calibration possibilities

- **Interfaces**

RS485, 2-wire, half-duplex/WiFi

- **Article number**

8390.U01, 8390.U02

Relative humidity is measured by means of a heated capacitive sensor element; a precision PT100 measuring element is used to measure air temperature. A resonant pressure transducer is employed for precise pressure measurement.

Accuracy in Detail:

- Temperature better than +/- 0.1°C
- Relative Humidity better than +/- 2%

Technical Data

WS3000-UMB Reference Weather Sensor - discontinued



- Air Pressure better than +/- 0.1 hPa

Measurement output can be accessed by the following protocols: UMB-Binary, UMB-ASCII, UMB-ASCII 2.0, SDI-12, NMEA.

IMPORTANT: WS3000 is discontinued

| General | |
|--------------------------|--|
| Dimensions | Ø ca. 250 mm, height approx. 470 mm |
| Weight | Approx. 5 kg |
| Interface | RS485, 2 - wire, half - duplex/WiFi |
| Power consumption | 24 VDC / typical 4W |
| Operating temperature | -40...60 °C (with optional test expendable to -60...60 °C) |
| Operating rel. humidity | 0...100 % RH |
| Protection level housing | IP66 |

| Temperature | |
|-----------------|-------------------------|
| Principle | PT100 |
| Measuring range | -80...80 °C |
| Unit | °C |
| Accuracy | ±0.1 °C (@ -40...60 °C) |
| Resolution | 0.01 °C |

| Relative humidity | |
|-------------------|--------------|
| Principle | Capacitive |
| Measuring range | 0...100 % RH |
| Unit | % RH |
| Accuracy | ±2 % RH |
| Resolution | 0.1 % RH |

| Air pressure | |
|-----------------|-----------------------------------|
| Principle | MEMS Resonant Pressure transducer |
| Measuring range | 300...1100 hPa |
| Unit | hPa |
| Accuracy | ±0.1 hPa |
| Resolution | 0.01 hPa |