



Compact all-in-one weather sensor for measurement of temperature, relative humidity, air pressure and radiation.

- **Parameters measured**
Temperature, relative humidity, air pressure, radiation
- **Measurement technology**
NTC/T, Capacitive/RH, MEMS capacitive/Pressure, Lufft Pyranometer/Radiation
- **Product highlights**
Compact all-in-one weather sensor, low power, aspirated radiation shield, maintenance-free operation, open communication protocol
- **Interfaces**
RS485 with supported protocols UMB-Binary, UMB-ASCII, Modbus-RTU, Modbus-ASCII, XDR and SDI-12
- **Article number**
8374.U10

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, air pressure and radiation. One external temperature or rain sensor is connectable.

General

Technical data

| | |
|----------------------------|---|
| Weight | Approx. 1.3kg |
| Interface | RS485, 2-wire, half-duplex |
| Power supply | 4...32 VDC |
| Power supply | 5...11 VDC (electronics with limited precision of measurements) |
| Power supply | 24 VDC +/- 10% |
| Power consumption | 40 VA |
| Operating temperature | -50...60°C |
| Operating rel. humidity | 0...100% RH |
| Dimensions | Ø approx. 150mm, height approx. 253mm |
| Protection level housing | IP66 |
| Mast mounting suitable for | mast diameter 60 - 76mm |

| Radiation | |
|---------------------|-----------------------|
| Unit | W/m ² |
| Accuracy | 5% |
| Response time (95%) | < 1 s |
| Spectral range | 300 to 1100 nm |
| Measuring range | 1400 W/m ² |

| 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) |