

## First and only compact weather sensor with integrated Kipp & Zonen CMP10 Pyranometer with secondary standard quality

- **Parameters measured**
  Temperature, relative humidity, air pressure, radiation
- **Measurement technology**
  NTC/T, Capacitive/RH, MEMS capacitive/Pressure, Kipp&Zonen/Radiation
- **Product highlights**
  Compact all-in-one weather sensor, low power, heater, 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.U13

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 | |
|---|---|
| Dimensions | Ø approx. 150 mm, height approx. 332 mm |
| Weight | Approx. 1.5 kg |

| | |
|---|---|
| Interface | RS485, 2 - wire, half - duplex |
| Power supply | 11...32 VDC |
| Power supply | 5...11 VDC (electronics with limited precision of measurements) |
| Power supply | 24 VDC +/- 10% (heater) |
| Power consumption | 40 VA (heater) |
| Operating temperature | -50...60 °C (with heater) |
| Operating rel. humidity | 0...100 % RH |
| Cable length | 10 m |
| Protection level housing | IP66 |
| Mast mounting suitable for | Mast diameter 60 - 76 mm |

| **Temperature** | |
|---|---|
| Principle | NTC |
| Measuring range | -40 ... 80 °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) |

| **Radiation** | |
|---|---|
| Response time | < 5 s |
| Zero offset A | < 7 $W/m^2$ |
| Zero offset B | < 2 $W/m^2$ |
| Directional error (at 1000 $W/m^2$) | < 0.2 % |
| Temperature dependence of sensitivity | < 1 % (-10 °C...40 °C) |
| Spectral range | 285 to 2,800 nm |
| Measuring range | 4000 $W/m^2$ |