

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