

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)