



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











WS302-UMB Smart Weather Sensor

Technical Data



Weight	Approx. 1.3kg
Interface	RS485, 2-wire, half-duplex
Power supply	432 VDC
Power supply	511 VDC (electronics with limited precision of measurements)
Power supply	24 VDC +/- 10%
Power consumption	40 VA
Operating temperature	-5060°C
Operating rel. humidity	0100% 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%)	<1s
Spectral range	300 to 1100 nm
Measuring range	1400 W/m ²

Temperature	
Principle	NTC
Measuring range	-50 60 °C
Unit	℃
Accuracy	±0.2°C (-2050°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 (040°C)









