Compact all-in-one weather sensor with measurement of temperature, relative humidity, precipitation, air pressure, wind direction and wind speed.

- **Parameters measured**
  Temperature, relative humidity, precipitation, air pressure, wind direction, wind speed

- **Measurement technology**
  Ultrasonic/Wind, NTC/T, Capacitive/RH, MEMS capacitive/Pressure, Tipping spoon and bucket/Precipitation

- **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**
  8376.U01

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, precipitation, air pressure, wind direction and wind speed. One external temperature sensor is connectable.

General

Dimensions	Ø approx. 164 mm, height approx. 445 mm
Weight	Approx. 1.7 kg
Interface	RS485, 2 - wire, half - duplex
Power supply	4...32 VDC
Operating temperature	-50...60 °C
Operating rel. humidity	0...100 % RH
Heating	20 VA at 24 VDC
Protection level housing	IP66
Mast mounting suitable for	Mast diameter 60 - 76 mm

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)

Wind direction	
Principle	Ultrasonic
Measuring range	0 ... 359.9 °
Unit	°
Accuracy	< 3° RMSE > 1.0 m/s

Wind speed	
Principle	Ultrasonic
Measuring range	0 ... 30 m/s
Unit	m/s
Accuracy	±0.3 m/s or 3 % RMS
Resolution	0.1 m/s

Precipitation	
Accuracy	±2 %
Resolution	0.2 mm
Maximum intensity	144 mm/h

Precipitation (with reduction ring)	
Accuracy	±2 %
Resolution	0.5 mm
Maximum intensity	360 mm/h