

# WS500-UMB – Air Pressure, Relative Humidity, Wind

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
- Wind direction
- Wind speed

Relative humidity is measured by means of a capacitive sensor element; a precision NTC measuring element is used to measure air temperature.

Maintenance-free measurement offers a major advantage. Measurement data are available for further processing in the form of a standard protocol (Lufft-UMB protocol).

WS500-UMB Compact weather station			Order No.
<b>WS500-UMB</b>			<b>8373.U01</b>
<b>Technical Data</b>	Dimensions	Ø approx. 150 mm, height approx. 290 mm	
	Weight	approx. 1.3 kg	
<b>Temperature</b>	Principle	NTC	
	Measuring range	-50 ... 60 °C	
	Accuracy	±0.2 °C (-20 °C ... +50 °C), otherwise ±0.5 °C (> -30 °C)	
<b>Relative humidity</b>	Principle	Capacitive	
	Measuring range	0 ... 100 % RH	
	Accuracy	±2 % RH	
<b>Air pressure</b>	Principle	MEMS Capacitive	
	Measuring range	300 ... 1200 hPa	
	Accuracy	±1.5 hPa	
<b>Wind direction</b>	Principle	Ultrasonic	
	Measuring range	0 ... 359.9 °	
	Accuracy	±3 °	
<b>Wind speed</b>	Principle	Ultrasonic	
	Measuring range	0 ... 60 m/s	
	Accuracy	±0.3 m/s or ±3 % (0 ... 35 m/s)	
<b>General Information</b>	Heating	20 VA at 24 VDC	
	Interface	RS485, 2-wire, half-duplex	
	Op. power consumption	24 VDC +/-10 % < 4 VA (without heating)	
	Operating humidity range	0 ... 100 %	
	Op. temperature range	-50 ... 60 °C	
<b>Accessories</b>	Surge protection		<b>8379.USP</b>
	Power supply 24V/4A		<b>8366.USV1</b>
	UMB Interface converter ISOCON		<b>8160.UISO</b>
	Traverse for R25 + WS500		<b>8367.TRAV</b>

Ultrasonic wind sensor

Maintenance-free operation

Open communication protocol:

ASCII

UMB

SDI12

Coming soon:

MODBUS, analog outputs

