

Lufft WS500-UMB – Temperature, Air Pressure, Relative Humidity, Wind, Electronic Compass

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.

Ultrasonic sensor technology is used to take wind measurements.

Measurement output can be accessed by the following protocols:
UMB-Binary, UMB-ASCII, SDI-12, MODBUS

Lufft WS500-UMB Compact Weather Station			Order No.
WS500-UMB			8373.U01
Technical Data	Dimensions	Ø approx. 150 mm, height approx 287 mm	
	Weight	approx. 1.2 kg	
Temperature	Principle	NTC	
	Measuring range	-50 ... 60 °C	
	Accuracy	±0.2 °C (-20 °C ... +50 °C), otherwise ±0.5 °C (> -30 °C)	
Relative humidity	Principle	Capacitive	
	Measuring range	0 ... 100 % RH	
	Accuracy	±2 % RH	
Air pressure	Principle	MEMS Capacitive	
	Measuring range	300 ... 1200 hPa	
	Accuracy	±1.5 hPa	
Wind direction	Principle	Ultrasonic	
	Measuring range	0 ... 359.9 °	
	Accuracy	±3 °	
Wind speed	Principle	Ultrasonic	
	Measuring range	0 ... 60 m/s	
	Accuracy	±0.3 m/s or ±3 % (0 ... 35 m/s)	
General Information	Heating	20 VA at 24 VDC	
	Protection type housing	IP65	
	Interface	RS485, 2-wire, half-duplex	
	Op. power consumption	24 VDC +/-10 %	
	Operating humidity range	0 ... 100 %	
	Op. temperature range	-50 ... 60 °C	
Accessories	Surge protection		8379.USP
	Power supply 24V/4A		8366.USV1
	UMB Interface converter ISOCON-UMB		8160.UISO
	Traverse for R2S-UMB + WS500-UMB		8367.TRAV
	Digital-analog-converter DACON8-UMB		8160.UDAC
	Temperature Sensor WT1		8160.WT1
	Surface Temperature Sensor WST1		8160.WST1
	Rain Sensor WTB100		8353.10



Ultrasonic wind sensor
Aspirated temperature/humidity measurement
Open communication protocol:
- UMB-ASCII
- UMB-Binary
- SDI-12
- MODBUS
- Analogue outputs in combination with 8160.UDAC