Lufft UMB Sensor Overview

	Wind	Temperature Rel. humidity Air pressure	Temperature Rel. humidity Air pressure Precipitation	Temperature Rel. humidity Air pressure Radiance (solar radiation)
Titan				
	Ventus			WS310
Platinum				
				WS301/303
Gold				
	V200A	WS300	WS400	WS304
Professional				
	WS200		WS401	WS302

Temperature Rel. humidity Air pressure Wind speed Wind direction	Temperature Rel. humidity Air pressure Wind speed Wind direction Radiance (solar radiation)	Temperature Rel. humidity Air pressure Wind speed Wind direction Precipitation	Temperature Rel. humidity Air pressure Wind speed Wind direction Precipitation Radiation	2 Channel EXPANDER	Protocols
				ANACON	UMB MODBUS ASCII SDI12
	WS510				
				ANACON	UMB MODBUS ASCII SDI12
	WS501/503				
				ANACON	UMB MODBUS ASCII SDI12
WS500	WS504	WS600	WS700		
				ANACON	UMB MODBUS ASCII SDI12
	WS502	WS601			

Maintenance-free

Measuring

Lufft V200A-UMB – Ultrasonic Wind Sensor Plastic Housing, 20 W-Heater

Extremely precise and maintenance-free measurement of wind velocity and wind direction as well as calculation of acoustic virtual temperature.

Belongs to Lufft's WS family of professional intelligent sensors with digital and analog interfaces.

The ultrasonic wind sensor is designed without mechanical parts – traditionally known as "cups and vane".

The digital or analog output delivers instantaneous, average, min or max value with flexible measuring rate. The V200A is heated to remove frost and ice formation from the sensor.

Recommended for:

- Meteorology
- Building automation

The following outputs/protocols are available:

- NMEA
- UMB-ASCII
- UMB-Binary
- MODBUS (ASCII, RTU)
- SDI-12
- 4…20mA, 0...10V, 0…20mA, 2…10V frequency (analog)

Lufft V200A-UMB Ultrasonic Wind Sensor			Order No.
V200A-UMB			**8371.UA01**
Technical Data	Dimensions	Ø approx. 150mm, height approx. 170mm	
	Weight	Approx. 0.8kg	
Wind direction	Principle	Ultrasonic	
	Measuring range	0…359.9 °	
	Resolution	0.1 ° (standard)	
	Accuracy	< 3 ° RMSE >1.0m/s	
	Start-up Threshold	0.3m/s	
	Measuring rate	60 partial measurements/ 15 measurements per second	
	Measurement output rate	1-10 seconds adjustable – default 10s	
Wind speed	Principle	Ultrasonic	
	Measuring range	0…75m/s	
	Resolution	0.1m/s	
	Accuracy	±0.3m/s or 3% (0…35m/s) RMS of reading, whichever is greater ±5% (>35m/s) RMS	
	Start-up threshold	0.3m/s	
	Measuring rate	60 partial measurements/ 15 measurements per second	
	Measurement output rate	1-10 seconds adjustable – default 10s	
	Unit	m/s; km/h; mph; kts	
Virtual temperature	Principle	Ultrasonic	
	Measuring range	–50 °C…+70 °C	
	Resolution	0.1 °K	
	Accuracy	±2.0K (without heater and without sun exposure or wind >4ms)	
	Measuring rate	60 partial measurements/ 15 measurements per second	
	Measurement output rate	1-10 seconds adjustable – default 10s	
Air pressure	Principle	MEMS Capacitive	
	Measuring range	300…1200hPa	
	Accuracy	± 0.5hPa (0…+40 °C)	
Data output digital	Interface	RS485 semi-/full duplex, isolated	
	Baudrate	1200…57600	
	Meas. rate instant. value	1-10s	
	Measuring rate Avg (arithmetic, vector), Min, Max	1-10min	
	Status	Heating, sensor failure	
Data output analog	Only semi-duplex mode		
	Output signal	0…20mA, 4…20mA, 0…10V, 2…10V, 2…2,000Hz only output 1 (instantaneous, avg, min, max)	
	Load	Max. 500 Ohm	
	Resolution	16 Bit	
General Information	Operating temperature	–40…+60 °C (with heating)	
	Bus operation	Up to 32 devices	
	Operating voltage electronics	24VDC ± 10% or 24VDC/1.2 VA without heating: 12VDC	
	With heating	24VDC, max. 20VA	
	Connection	8-pole plug	
	Housing material	Plastic	
	Protection	IP66	
	Pole diameter	50mm/2"	
	Factory certificate	Yes	
Accessories	Surge protection		**8379.USP-V**
	Power supply 24 V/4 A		**8366.USV1**
	UMB Interface converter ISOCON-UMB		**8160.UISO**
	Connection cable, 15 m incl. connector		**8371.UK015**
	Connection cable, 50 m incl. connector		**8371.UK050**
	Connector		**8371.UST1**