

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 ... 20 mA, 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. 150 mm, height approx. 170 mm	
	Weight	approx. 0.8 kg	
Wind direction	Principle	Ultrasonic	
	Measuring range	0 ... 359.9°	
	Resolution	0.1° (standard)	
	Accuracy	< 3° RMSE > 1.0 m/s	
	Start-up Threshold	0.3 m/s	
	Measuring rate	60 partial measurements/ 15 measurements per second	
	Measurement output rate	1-10 seconds adjustable – default 10 s	
Wind speed	Principle	Ultrasonic	
	Measuring range	0 ... 75 m/s	
	Resolution	0.1 m/s	
	Accuracy	±0.3 m/s or 3% (0 ... 35 m/s) RMS of reading, whichever is greater ±5% (> 35 m/s) RMS	
	Start-up threshold	0.3 m/s	
	Measuring rate	60 partial measurements/ 15 measurements per second	
	Measurement output rate	1-10 seconds adjustable – default 10 s	
Virtual temperature	Principle	Ultrasonic	
	Measuring range	-50 °C ... 70 °C	
	Resolution	0.1 °K	
	Accuracy	± 2.0 K (without heater and without sun exposure or wind > 4 m/s)	
Air pressure	Principle	MEMS Capacitive	
	Measuring range	300 ... 1200 hPa	
	Accuracy	+/- 0.5 h Pa (0 ... 40 °C)	
	Measurement output rate	1-10 seconds adjustable – default 10 s	
Data output digital	Interface	RS485 semi-/full duplex, isolated	
	Baudrate	1200-57600	
	Meas. rate instant. value	1-10 s	
	Measuring rate Avg (arithmetic, vector), Min, Max	1-10 min	
	Status	Heating, sensor failure	
Data output analog	Only semi-duplex mode		
	Output signal	0 ... 20 mA, 4 ... 20 mA, 0 ... 10V, 2 ... 10V, 2 ... 2,000 Hz 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	24 VDC ± 10% or 24 VDC/1,2 VA without heating: 12 VDC	
	with heating	24 VDC, max. 20 VA	
	Connection	8-pole plug	
	Housing material	Plastic	
	Protection	IP66	
	Pole diameter	50 mm/2"	
	Factory certificate	yes	
	Accessories	Surge protection	
Power supply 24V/4A			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