

# Lufft WS200-UMB – Ultrasonic Wind Sensor, Electronic Compass

From the WS product family of professional intelligent measurement transducers with digital interface for environmental applications.

Integrated design for measuring:

- Wind direction
- Wind speed

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

**One external temperature or rain sensor is connectable.**

| Lufft WS200-UMB Smart Weather Sensor |                                      |   | Order No.          |
|--------------------------------------|--------------------------------------|---|--------------------|
| <b>WS200-UMB</b>                     |                                      |   | <b>8371.U01</b>    |
| <b>Technical data</b>                | Dimensions                           | Ø approx. 150mm, height approx. 194mm   |                    |
|                                      | Weight                               | approx. 0.8 kg  |                    |
| <b>Wind direction</b>                | Principle                            | Ultrasonic  |                    |
|                                      | Measuring range                      | 0 ... 359.9°  |                    |
|                                      | Accuracy                             | < 3° RMSE > 1.0 m/s   |                    |
| <b>Wind speed</b>                    | Principle                            | Ultrasonic  |                    |
|                                      | Measuring range                      | 0 ... 75 m/s  |                    |
|                                      | Accuracy                             | ±0.3 m/s or 3% (0 ... 35 m/s) RMS of reading, whichever is greater ±5% (> 35 m/s) RMS |                    |
| <b>General information</b>           | Heating                              | 20 VA at 24 VDC   |                    |
|                                      | Protection type housing              | IP66  |                    |
|                                      | Interface                            | RS485, 2-wire, half-duplex  |                    |
|                                      | Op. power consumption                | 4...32 VDC  |                    |
|                                      | 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-UMB   |   | <b>8160.UISO</b>   |
|                                      | Digital-analog-converter DACON8-UMB  |   | <b>8160.UDAC</b>   |
|                                      | Temperature sensor WT1               |   | <b>8160.WT1</b>    |
|                                      | Road surface temperature sensor WST1 |   | <b>8160.WST1</b>   |
|                                      | Rain sensor WTB100                   |   | <b>8353.10</b>     |
|                                      | Connection cable, 20m                |   | <b>8370.UKAB20</b> |



## Ultrasonic wind measurement

Open communication protocol:

- UMB-ASCII
- UMB-Binary
- SDI-12
- MODBUS
- Analogue outputs in combination with 8160.UDAC

Third-party-rain gauge sensors are compatible: 0.1 mm, 0.2 mm, 0.5 mm, 1mm heated and unheated.