

# 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 Compact Weather Station |                                      |  | 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 >1.0m/s  |                    |
| <b>Wind speed</b>                       | Principle                            | Ultrasonic   |                    |
|   | Measuring range                      | 0 ... 75m/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                              | 20VA at 24VDC  |                    |
|   | Protection type housing              | IP66   |                    |
|   | Interface                            | RS485, 2-wire, half-duplex   |                    |
|   | Op. power consumption                | 12-24 VDC ±10%   |                    |
|   | 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.