



Lufft WS400 Smart Weather Sensor

Product #: 8369.1
USD Price: Contact Hach

The WS400-UMB is a compact all-in-one weather sensor with measurement of temperature, relative humidity, air pressure, precipitation intensity, type and quantity. It is part of the WS product family of professional intelligent measuring sensors with a digital interface and an integrated design with ventilated radiation protection for various environmental applications. An external temperature sensor can be connected.

All-in-one housing concept & easy installation

All-in-one housing concept of a compact weather sensor combining several measurement parameters in one housing with only a single cable connection.

Maintenance-free operation

Maintenance free operation as there are no moving parts that can wear out. Precipitation is measured with a radar sensor.

Flexible interfaces and telegrams

SDI-12 and RS485 with supported protocols UMB-Binary, UMB-ASCII, Modbus-RTU, Modbus-ASCII, and XDR.

Aspirated radiation shield

Specifications

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| *Parameters Measured: | Air Temperature |
| | Relative Humidity |
| | Precipitation Intensity |
| | Precipitation Type |
| | Precipitation Quantity |
| Air Pressure: | Air Pressure |
| | Accuracy: ± 0.5 hPa (0 - +104 °F) or ± 0.5 hPa (0 - +40 °C) |
| | Measuring range: 300 - 1200 hPa |
| Air Temperature: | Measurement technology: MEMS capacitive |
| | Accuracy: ± 0.4 °F (-4 - +122 °F) or ± 0.2 °C (-20 - +50 °C), otherwise ± 0.9 °F (# -22 °F) or ± 0.5 °C (# -30 °C) |
| | Measuring range: -58 - +140 °F (-50 - +60 °C) |
| | Measurement technology: NTC |

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|------------------------------|--|
| | Resolution: 0.1 °C (-20 - +50 °C), otherwise 0.2 °C |
| Analog Inputs: | 1 |
| Cable Connection: | Open wires |
| Cable Length: | 33 ft (10 m) |
| Communication: | SDI-12 and RS485 with supported protocols |
| | UMB-Binary, UMB-ASCII, Modbus-RTU, Modbus-ASCII, XDR |
| Dimensions: | Ø150 x 279 mm |
| Interface: | RS485 2 wire |
| | Baud rate: 1200 - 38400 bit/s (Standard: 19200) or SDI-12 |
| IP Rating: | IP66 |
| Material Enclosures: | Plastics (PC) |
| Operating Humidity: | 0 - 100 % |
| Operating Temperature Range: | -50 - +60 °C |
| Power Supply: | 12 - 24 VDC |
| Precipitation: | Accuracy: 20 % |
| | Measuring range: 0 - 200 mm/h |
| | Measurement technology: 24 GHz Radar |
| Relative Humidity: | Accuracy: ±2 % RH |
| | Measuring range: 0 - 100 % RH |
| | Measurement technology: Capacitive |
| Water Level: | Accuracy: ±0.3 m/s or ±3 % (0 - 35 m/s) ±5 % (#35 m/s) RMS |
| | Measuring range: 0 - 75 m/s |
| | Measurement technology: Ultrasonic |
| Weight: | 3.3 lb (# 1.5 kg) |
| Wind Direction: | Accuracy: # 3° RMSE # 1.0 m/s |
| | Measuring range: 0 - 359.9 ° |
| | Measurement technology: Ultrasonic |