LUFFT KOMBINUOTI MATAVIMO PRIETAISAI

Eil. Nr.	Pavadinimas	Aprašymas
1.	8369.U01 WS400-UMB Smart Weather Sensor Measurement of Temperature, Relative humidity, Air pressure, Precipitation intensity, Precipitation quantity Country version: EU, USA and Canada	**Description:** Country version: EU, USA and Canada **Supplementary description:** WS400-UMB Smart Weather Sensor for measuring of air temperature, relative humidity, precipitation intensity, precipitation type, precipitation quantity and air pressure. Relative humidity is measured by means of a capacitive sensor element; a precision NTC measuring element is used to measure air temperature. Precipitation is measured by a 24 GHz Doppler radar, which measures the drop speed of an individual drop of rain/snow. Precipitation quantity and intensity are calculated from the correlation between drop size and speed. The difference in drop speed determines the type of precipitation (rain/snow). Maintenance-free measurement offers a major advantage over the common tipping spoon and tipping bucket processes. Measurement output can be accessed by the following protocolls: UMB-Binary, UMB-ASCII, SDI-12, MODBUS. One external temperature sensor is connectable. **Special features:** • Maintenance-free operation • Aspirated temperature/humidity measurement • Open communication protocol: • UMB-ASCII • UMB-Binary • SDI-12 • MODBUS • Analoge outputs in combination with 8160.UDAC • , Download - product data sheet
2.	8369.U02 WS400-UMB Smart Weather Sensor Measurement of Temperature, Relative humidity, Air pressure, Precipitation intensity, Precipitation quantity Country version: UK	**Description:** Country version: UK **Supplementary description:** WS400-UMB Smart Weather Sensor for measuring of air temperature, relative humidity, precipitation intensity, precipitation type, precipitation quantity and air pressure. Relative humidity is measured by means of a capacitive sensor element; a precision NTC measuring element is used to measure air temperature. Precipitation is measured by a 24 GHz Doppler radar, which measures the drop speed of an individual drop of rain/snow. Precipitation quantity and intensity are calculated from the correlation between drop size and speed. The difference in drop speed determines the type of precipitation (rain/snow). Maintenance-free measurement offers a major advantage over the common tipping spoon and tipping bucket processes. Measurement output can be accessed by the following protocolls: UMB-Binary, UMB-ASCII, SDI-12, MODBUS. One external temperature sensor is connectable. **Special features:** • Maintenance-free operation • Aspirated temperature/humidity measurement • Open communation protocol: • UMB-ASCII • UMB-Binary • SDI-12 • MODBUS • Analoge outputs in combination with 8160.UDAC

	•	, Download - product data sheet
3.	8370.U01 WS600-UMB Smart Weather Sensor Measurement of Temperature, Relative humidity, Air pressure, Wind direction, Wind speed, Precipitation intensity, Precipitation quantity Country version: EU, USA and Canada • • • • • • • • • •	**Description:** Country version: EU, USA and Canada **Supplementary description:** WS600-UMB Smart Weather Sensor for measuring of air temperature, relative humidity, precipitation intensity, precipitation type, precipitation quantity, air pressure, wind direction and wind speed. Relative humidity is measured by means of a capacitive sensor element; a precision NTC measuring element is used to measure air temperature. Precipitation is measured by a 24 GHz Doppler radar, which measures the drop speed of an individual drop of rain/snow. Precipitation quantity and intensity are calculated from the correlation between drop size and speed. The difference in drop speed determines the type of precipitation (rain/snow). Maintenance-free measurement offers a major advantage over the common tipping spoon and tipping bucket processes. Ultrasonic sensor technology is used to take wind measurements. Measurement output can be accessed by the following protocolls: UMB-Binary, UMB-ASCII, SDI-12, MODBUS. One external temperature sensor is connectable. **Special features:** All in One Aspirated temperature/humidity measurement Maintenance-free operation Open communication protocol: UMB-ASCII UMB-Binary SDI-12 MODBUS Analoge outputs in combination with 8160.UDAC , Download - product data sheet
4.	8370.U02 WS600-UMB Smart Weather Sensor Measurement of Temperature, Relative humidity, Air pressure, Wind direction, Wind speed, Precipitation intensity, Precipitation quantity Country version: UK	**Description:** Country version: UK **Supplementary description:** WS600-UMB Smart Weather Sensor for measuring of air temperature, relative humidity, precipitation intensity, precipitation type, precipitation quantity, air pressure, wind direction and wind speed. Relative humidity is measured by means of a capacitive sensor element; a precision NTC measuring element is used to measure air temperature. Precipitation is measured by a 24 GHz Doppler radar, which measures the drop speed of an individual drop of rain/snow. Precipitation quantity and intensity are calculated from the correlation between drop size and speed. The difference in drop speed determines the type of precipitation (rain/snow). Maintenance-free measurement offers a major advantage over the common tipping spoon and tipping bucket processes. Ultrasonic sensor technology is used to take wind measurements. Measurement output can be accessed by the following protocolls: UMB-Binary, UMB-ASCII, SDI-12, MODBUS. One external temperature sensor is connectable. **Special features:** • All in One • Aspirated temperature/humidity measurement • Maintenance-free operation • Open communication protocol: • UMB-ASCII • UMB-Binary • SDI-12 • MODBUS

		• Analoge outputs in combination with 8160.UDAC • . Download - product data sheet
5.	8372.U01 WS300-UMB Smart Weather Sensor Measurement of Temperature, Relative humidity, Air pressure	**Description:** From the WS product family of professional intelligent measurement transducers with digital interface for environmental applications. **Supplementary description:** WS300-UMB Smart Weather Sensor for measuring of air temperature, relative humidity and air pressure. Relative humidity is measured by means of a capacitive sensor element; a precision NTC measuring element is used to measure air temperature. Measurement output can be accessed by the following protocolls: UMB-Binary, UMB-ASCII, SDI-12, MODBUS **Special features:** • Aspirated temperature/humidity measurement • Open communication protocol: • UMB-ASCII • UMB-Binary • SDI-12 • MODBUS • Analoge outputs in combination with 8160.UDAC • . Download - product data sheet
6.	8373.U01 WS500-UMB Smart Weather Sensor Measurement of Temperature, Relative humidity, Air pressure, Wind direction, Wind speed	**Description:** From the WS product family of professional intelligent measurement transducers with digital interface for environmental applications. **Supplementary description:** WS500-UMB Smart Weather Sensor for measuring of air temperature, relative humidity, air pressure, wind direction and wind speed. Relative humidity is measured by means of a capacitive sensor element; a precision NTC measuring element is used to measure air temperature. Ultrasonic sensor technology is used to take wind measurements. Measurement output can be accessed by the following protocolls: UMB-Binary, UMB-ASCII, SDI-12, MODBUS One external temperature or rain sensor is connectable. **Special features:** • Aspirated temperature/humidity measurement • Open communication protocol: • UMB-ASCII • UMB-Binary • SDI-12 • MODBUS • Analoge outputs in combination with 8160.UDAC • Third-Party-Rain gauge sensors are compatible: 0.1mm, 0.2mm, 0.5mm, 1mm heated and unheated Download - product data sheet
7.	8374.U01 WS301-UMB Smart Weather Sensor	**Description:** From the WS product family of professional intelligent measurement transducers with digital interface for environmental applications. Integrated design with ventilated radiation protection for measuring: -Air temperature -Relative humidity - Solar radiation -Air pressure **Supplementary description:** Relative humidity is measured by means of a capacitive sensor element; a precision NTC measuring element is used to measure air temperature. The world

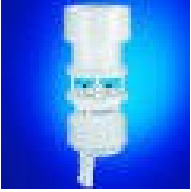|		
	Measurement of Temperature, Relative humidity, Air pressure, Radiation	renowned technology of Kipp+Zonen CMP3 is integrated. Measurement output can be accessed by the following protocolls: UMB-Binary, UMB-ASCII, SDI-12, MODBUS. One external temperature or rain sensor is connectable. **Special features:** • Aspirated temperature/humidity measurement • Open communication protocol: • UMB-ASCII • UMB-Binary • SDI-12 • MODBUS • Analoge outputs in combination with 8160.UDAC • Third-Party-Rain gauge sensors are compatible: 0.1mm, 0.2mm, 0.5mm, 1mm heated and unheated . Download - product data sheet
8.	 8374.U10 WS302-UMB Smart Weather Sensor Measurement of Radiation, Temperature, Relative humidity, Air pressure	**Description:** From the WS product family of professional intelligent measurement transducers with digital interface for environmental applications. Integrated design with ventilated radiation protection for measuring: -Air temperature -Relative humidity - Solar radiation -Air pressure **Supplementary description:** Relative humidity is measured by means of a capacitive sensor element; a precision NTC measuring element is used to measure air temperature. Measurement output can be accessed by the following protocolls: UMB-Binary, UMB-ASCII, SDI-12, MODBUS One external temperature or rain sensor is connectable. **Special features:** • Aspirated temperature/humidity measurement • Open communication protocol: • UMB-ASCII • UMB-Binary • SDI-12 • MODBUS • Analoge outputs in combination with 8160.UDAC • Third-Party-Rain gauge sensors are compatible: 0.1mm, 0.2mm, 0.5mm, 1mm heated and unheated . Download - product data sheet
9.	 8374.U11 WS303-UMB Smart Weather Sensor Measurement of Radiation, Temperature, Relative humidity, Air pressure	**Description:** From the WS product family of professional intelligent measurement transducers with digital interface for environmental applications. **Supplementary description:** WS303-UMB Smart Weather Sensor for measuring of air temperature, relative humidity, solar radiation, air pressure. Relative humidity is measured by means of a capacitive sensor element; a precision NTC measuring element is used to measure air temperature. The world renowned technology of Kipp+Zonen CMP3 is integrated. Measurement output can be accessed by the following protocolls: UMB-Binary, UMB-ASCII, SDI-12, MODBUS. One external temperature or rain sensor is connectable. **Special features:** • Tiltable Pyranometer • Ultrasonic wind sensor • Aspirated temperature/humidity measurement • Open communication protocol: • UMB-ASCII

		- UMB-Binary - SDI-12 - MODBUS - Analoge 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 . Download - product data sheet
10.	8374.U12 WS304-UMB Smart Weather Sensor Measurement of Radiation, Temperature, Relative humidity, Air pressure	**Description:** From the WS product family of professional intelligent measurement transducers with digital interface for environmental applications. **Supplementary description:** WS304-UMB Smart Weather Sensor for measuring of air temperature, relative humidity, solar radiation, air pressure. Relative humidity is measured by means of a capacitive sensor element; a precision NTC measuring element is used to measure air temperature. Measurement output can be accessed by the following protocolls: UMB-Binary, UMB-ASCII, SDI-12, MODBUS. One external temperature or rain sensor is connectable. **Special features:** - All in One - Aspirated temperature/humidity measurement - Open communication protocol: - UMB-ASCII - UMB-Binary - SDI-12 - MODBUS - Analoge outputs in combination with 8160.UDAC - Third-Party-Rain gauge sensors are compatible: 0.1mm, 0.2mm, 0.5mm, 1mm heated and unheated. . Download - product data sheet
11.	8374.U13 WS310-UMB Smart Weather Sensor Measurement of Temperature, Relative humidity, Air pressure, Radiation	**Description:** From the WS product family of professional intelligent measurement transducers with digital interface for environmental applications. **Supplementary description:** WS310-UMB Smart Weather Sensor for measuring of air temperature, relative humidity, solar radiation and air pressure. Relative humidity is measured by means of a capacitive sensor element; a precision NTC measuring element is used to measure air temperature. The world renowned technology of Kipp+Zonen CMP10 is integrated. Measurement output can be accessed by the following protocolls: UMB-Binary, UMB-ASCII, SDI-12, MODBUS. One external temperature or rain sensor is connectable. **Special features:** - All in One - Aspirated temperature/humidity measurement - Open communication protocol: - UMB-ASCII - UMB-Binary - SDI-12 - MODBUS - Analoge outputs in combination with 8160.UDAC - Third-Party-Rain gauge sensors are compatible: 0.1mm, 0.2mm, 0.5mm, 1mm heated and unheated. . Download - product data sheet

12.	8375.U01 <u>WS501-UMB Smart Weather Sensor</u> Measurement of Temperature, Relative humidity, Air pressure, Wind direction, Wind speed, Radiation	**Description:** From the WS product family of professional intelligent measurement transducers with digital interface for environmental applications. **Supplementary description:** WS501-UMB Smart Weather Sensor for measuring of air temperature, relative humidity, solar radiation, air pressure, wind direction and wind speed. Relative humidity is measured by means of a capacitive sensor element; a precision NTC measuring element is used to measure air temperature. The world renowned technology of Kipp+Zonen CMP3 is integrated. Ultrasonic sensor technology is used to take wind measurements. Measurement output can be accessed by the following protocolls: UMB-Binary, UMB-ASCII, SDI-12, MODBUS. One external temperature or rain sensor is connectable. **Special features:** • All in One • Aspirated temperature/humidity measurement • Open communication protocol: • UMB-ASCII • UMB-Binary • SDI-12 • MODBUS • Analoge outputs in combination with 8160.UDAC • Third-Party-Rain gauge sensors are compatible: 0.1mm, 0.2mm, 0.5mm, 1mm heated and unheated. <u>Download - product data sheet</u>
13.	8375.U10 <u>WS502-UMB Smart Weather Sensor</u> Measurement of Radiation, Temperature, Relative humidity, Air pressure, Wind direction, Wind speed	**Description:** From the WS product family of professional intelligent measurement transducers with digital interface for environmental applications. **Supplementary description:** WS502-UMB Smart Weather Sensor for measuring of air temperature, relative humidity, solar radiation, air pressure, wind direction and wind speed. Relative humidity is measured by means of a capacitive sensor element; a precision NTC measuring element is used to measure air temperature. Ultrasonic sensor technology is used to take wind measurements. Measurement output can be accessed by the following protocolls: UMB-Binary, UMB-ASCII, SDI-12, MODBUS. One external temperature or rain sensor is connectable. **Special features:** • All in One • Aspirated temperature/humidity measurement • Open communication protocol: • UMB-ASCII • UMB-Binary • SDI-12 • MODBUS • Analoge outputs in combination with 8160.UDAC • Third-Party-Rain gauge sensors are compatible: 0.1mm, 0.2mm, 0.5mm, 1mm heated and unheated. <u>Download - product data sheet</u>
14.	8375.U11 <u>WS503-UMB Smart</u>	**Description:** From the WS product family of professional intelligent measurement transducers with digital interface for environmental applications. **Supplementary description:** WS503-UMB Smart Weather Sensor for measuring of air temperature, relative humidity, solar radiation, air pressure, wind direction and wind speed. Relative

	Weather Sensor Measurement of Radiation, Temperature, Relative humidity, Air pressure, Wind direction, Wind speed	humidity is measured by means of a capacitive sensor element; a precision NTC measuring element is used to measure air temperature. The world renowned technology of Kipp+Zonen CMP3 is integrated. Ultrasonic sensor technology is used to take wind measurements. Measurement output can be accessed by the following protocolls: UMB-Binary, UMB-ASCII, SDI-12, MODBUS. One external temperature or rain sensor is connectable. **Special features:** • Tiltable Pyranometer • Ultrasonic wind sensor • Aspirated temperature/humidity measurement • Open communication protocol: • UMB-ASCII • UMB-Binary • SDI-12 • MODBUS • Analoge 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 Download - product data sheet
15.	 8375.U12 WS504-UMB Smart Weather Sensor Measurement of Radiation, Temperature, Relative humidity, Air pressure, Wind direction, Wind speed	**Description:** From the WS product family of professional intelligent measurement transducers with digital interface for environmental applications. **Supplementary description:** WS504-UMB Smart Weather Sensor for measuring of air temperature, relative humidity, solar radiation, air pressure, wind direction and wind speed. Relative humidity is measured by means of a capacitive sensor element; a precision NTC measuring element is used to measure air temperature. Ultrasonic sensor technology is used to take wind measurements. Measurement output can be accessed by the following protocolls: UMB-Binary, UMB-ASCII, SDI-12, MODBUS. One external temperature or rain sensor is connectable. **Special features:** • All in One • Aspirated temperature/humidity measurement • Open communication protocol: • UMB-ASCII • UMB-Binary • SDI-12 • MODBUS • Analoge outputs in combination with 8160.UDAC • Third-Party-Rain gauge sensors are compatible: 0.1mm, 0.2mm, 0.5mm, 1mm heated and unheated. Download - product data sheet
16.	 8375.U13 WS510-UMB Smart Weather Sensor Measurement of Temperature, Relative humidity, Air pressure, Wind direction, Wind speed, Radiation	**Description:** From the WS product family of professional intelligent measurement transducers with digital interface for environmental applications. **Supplementary description:** WS510-UMB Smart Weather Sensor for measuring of air temperature, relative humidity, solar radiation, air pressure, wind direction and wind speed. Relative humidity is measured by means of a capacitive sensor element; a precision NTC measuring element is used to measure air temperature. The world renowned technology of Kipp+Zonen CMP10 is integrated. Ultrasonic sensor technology is used to take wind measurements. Measurement output can be accessed by the following protocolls: UMB-Binary, UMB-ASCII, SDI-12, MODBUS. One external temperature or rain sensor is connectable.

		Special features: • All in One • Aspirated temperature/humidity measurement • Open communication protocol: • UMB-ASCII • UMB-Binary • SDI-12 • MODBUS • Analoge outputs in combination with 8160.UDAC • Third-Party-Rain gauge sensors are compatible: 0.1mm, 0.2mm, 0.5mm, 1mm heated and unheated. Download - product data sheet
17.	 8376.U01 WS601-UMB Smart Weather Sensor Measurement of Temperature, Relative humidity, Air pressure, Wind direction, Wind speed, Precipitation, Precipitation (with reduction ring)	**Supplementary description:** WS601-UMB Smart Weather Sensor for measuring air temperature, relative humidity, precipitation, air pressure, wind direction and wind speed. Relative humidity is measured by means of a capacitive sensor element; a precision NTC measuring element is used to measure air temperature. Optionally, the WS601-UMB can be equipped with a leaf wetness sensor in addition. Precipitation is measured by a tipping spoon and tipping bucket processes. The flexible tipping bucket allows a 0.2mm or a 0.5mm resolution of the rainfall. Ultrasonic sensor technology is used to take wind measurements. Measurement output can be accessed by the following protocolls: UMB-Binary, UMB-ASCII, SDI-12, MODBUS. One external temperature sensor is connectable. **Special features:** • All in One • Aspirated temperature/humidity measurement • Open communication protocol: • UMB-ASCII • UMB-Binary • SDI-12 • MODBUS • Analoge outputs in combination with 8160.UDAC Download - product data sheet
18.	 8377.U01 WS401-UMB Smart Weather Sensor Measurement of Temperature, Relative humidity, Air pressure, Precipitation, Precipitation (with reduction ring)	**Supplementary description:** WS401-UMB Smart Weather Sensor for measuring of air temperature, relative humidity, precipitation and air pressure. Relative humidity is measured by means of a capacitive sensor element; a precision NTC measuring element is used to measure air temperature. Optionally, the WS401-UMB can be equipped with a leaf wetness sensor in addition. Precipitation is measured by tipping spoon and tipping bucket processes. The flexible tipping bucket allows a 0.2mm or a 0.5mm resolution of the rainfall. Measurement output can be accessed by the following protocolls: UMB-Binary, UMB-ASCII, SDI-12, MODBUS. One external temperature sensor is connectable. **Special features:** • Aspirated temperature/humidity measurement • Open communication protocol: • UMB-ASCII • UMB-Binary • SDI-12 • MODBUS • Analoge outputs in combination with 8160.UDAC Download - product data sheet

19.	 8380.U01 WS700-UMB Smart Weather Sensor Measurement of Temperature, Relative humidity, Air pressure, Wind direction, Wind speed, Precipitation intensity, Precipitation quantity, Radiation	**Supplementary description:** WS700-UMB Smart Weather Sensor for measuring of air temperature, relative humidity, precipitation intensity, precipitation type, precipitation quantity, air pressure, wind direction, wind Speed and radiation. Relative humidity is measured by means of a capacitive sensor element; a precision NTC measuring element is used to measure air temparature. Precipitation is measured by a 24 GHz Doppler radar, which measures the drop speed of an individual drop of rain/snow. Precipitation quantity and intensity are calculated from the correlation between drop size and speed. The difference in drop speed determines the type of precipitation (rain/snow). Measurement output can be accessed by the following protocolls: UMB-Binary, UMB-ASCII, SDI-12, MODBUS. One external temperature sensor is connectable. **Special features:** - All in One - Aspirated temperature/humidity measurement - Maintenance-free operation - Open communication protocol: - UMB-ASCII - UMB-Binary - SDI-12 - MODBUS - Analoge outputs in combination with 8160.UDAC . Download - product data sheet
20.	 8381.U01 WS800-UMB Smart Weather Sensor Measurement of Lightning detection , Temperature, Relative humidity, Air pressure, Wind direction, Wind speed, Precipitation intensity, Precipitation quantity, Radiation	**Description:** From the WS product family of professional intelligent measurement transducers with digital interface for environmental applications. Integrated design with ventilated radiation protection for measuring: Air temperature, relative humidity, precipitation intensity, precipitation type, precipitation quantity, solar radiation, lightning detection, air pressure, wind direction and wind speed. One external temperature sensor is connectable. **Supplementary description:** WS800-UMB includes lightning detection by an integrated sensor analysing the radio wave emission of lightnings. It delivers a count of recognized lightnings. The sensor analyses spectrum and wave form of the received signal to suppress the detection of man made electrical discharges. **Special features:** - All in One - Aspirated temperature/humidity measurement - Maintenance-free operation - Open communication protocol: - UMB-ASCII - UMB-Binary - SDI-12 - MODBUS - Analoge outputs in combination with 8160.UDAC Download - product data sheet
21.	 8390.U01 WS3000-UMB Smart Weather Sensor	**Description:** From the WS product family of professional intelligent measurement transducers with digital interface for environmental applications. **Supplementary description:** WS3000-UMB Smart Weather Sensor for measuring of air temperature, relative humidity and air pressure. Relative humidity is measured by means of a heated capacitive sensor element; a precision PT100 measuring element is used to measure air temperature. A resonant pressure transducer is employed for precise

		pressure measurement. Measurement output can be accessed by the following protocolls: UMB-Binary, UMB-ASCII, SDI-12, MODBUS, NMEA.
	Measurement of Temperature, Relative humidity, Air pressure	Available from 3rd quarter 2016 **Special features:** • Aspirated temperature/humidity measurement • Open communication protocol: • UMB-ASCII • UMB-Binary • SDI-12 • MODBUS • NMEA Download - product data sheet
22.	 8390.U02 WS3000-UMB Smart Weather Sensor Measurement of Temperature, Relative humidity, Air pressure	**Description:** From the WS product family of professional intelligent measurement transducers with digital interface for environmental applications. **Supplementary description:** WS3000-UMB Smart Weather Sensor for measuring of air temperature, relative humidity and air pressure. Relative humidity is measured by means of a heated capacitive sensor element; a precision PT100 measuring element is used to measure air temperature. A resonant pressure transducer is employed for precise pressure measurement. Measurement output can be accessed by the following protocolls: UMB-Binary, UMB-ASCII, SDI-12, MODBUS, NMEA. Version with second pressure sensor. Available from 3rd quarter 2016 **Special features:** • Aspirated temperature/humidity measurement • Open communication protocol: • UMB-ASCII • UMB-Binary • SDI-12 • MODBUS • NMEA Download - product data sheet