

# Clima Sensor US

The Clima Sensor US (Ultrasonic) is the economic alternative for compact acquisition of meteorological values. The sensor works absolutely maintenance-free without movable parts such as ventilator or bearing.



It measures wind velocity, wind direction, brightness, and precipitation. The wind velocity and wind direction are measured by an ultrasonic sensor in high-precision. The precipitation and its intensity are acquired via Doppler radar. A brightness sensor is included.

An integrated GPS receiver receives automatically the current information of date and time. The measuring values are available serially RS-422 / 485 (ASCII/ MODBUS-RTU) and as analogue signals at a plug connector.



Maintenance free



No moving parts



Combined precipitation and wind sensor



Universal use



Serial output

## Wind speed

Measuring range	0 to 60 m/s
Resolution	0.1 m/s (standard)
Accuracy	±0.3 m/s rms (< 5 m/s) ±3 % rms (5 m/s to 60 m/s)

## Wind direction

Measuring range	0 - 360°
Resolution	1° 0.1° in special telegrams
Accuracy	±2° WS > 2 m/s

## Virtual temperature

Measuring range	-40 to +80 °C
Resolution	0.1 K
Accuracy	± 0.5 K

**Data output digital**

<b>Interface</b>	RS-485 / RS-422
<b>Baud rate</b>	1200 to 921600 Baud
<b>Data values</b>	div. meas. data, date, time, check sum etc.
<b>Output range</b>	1 per 10 msec up to 1 per 60 sec
<b>Status signals</b>	heating, Meas section error, Temperature of meas section
<b>Protocol</b>	ASCII (preselected)

**Data output analog**

<b>Type</b>	max. 8 x 0 to 10 V
<b>Wind speed</b>	0 to 10 V
<b>Stromausgang</b>	max. 400 $\Omega$
<b>Wind direction</b>	0 to 10 V
<b>Voltage output</b>	min. 2000 $\Omega$
<b>Output parameters</b>	wind speed, wind direction, brightness, precipitation, relative humidity, air temperature, air pressure, etc.

**Operating voltage**

<b>Electronic</b>	6 to 60 V DC or 10 to 42 V AC / 1.2 W
<b>Heating</b>	24 V AC / DC, typ 25 W

**General**

<b>Bus operation</b>	up to 98 sensors
<b>Electr. connection</b>	19 pole connector
<b>Mounting</b>	on a mast tube 1,5"
<b>Housing</b>	plastic LEXAN (polycarbonate, UV-stabilised)
<b>Protection</b>	IP 67