

Humidity, Temperature Pressure, Wind Brightness

Description	Order No.	Technical Data		
Clima Sensors		Wind	Precipitation, Brightness, Twilight	Temperature Air humidity
Clima Sensor WTF	4.9010.00.061	X	X	X
Clima Sensor W	4.9000.00.061	X	X	
Clima Sensor TF	4.9011.00.061		X	X
Clima Sensor	4.9001.00.061		X	
The Clima Sensor 2000 serves for the measurement of important environmental data. Depending on the type of task it is available as combined measuring instrument. The analogue outputs are configured as standard signals so that they can be used for the coupling on customary bus systems.	Wind Speed	Meas. range Accuracy Electr. output Load resistor	1 ... 40 m/s ≤ 0.5 m/s 0 ... 10 V (=0 ... 40 m/s) ≥ 10 kΩ	
Wind A cup star, the revolution-no. of which is linear-proportional to the wind speed, supplies a frequency through a Reed-contact to a connected frequency-voltage-converter.	Precipitation-Detection	Meas. range Electr... output Sensitivity Load resistor	Precipitation yes/no 0 V at precipitation 10 V no precipitation Drizzle ≥ 100 kΩ	
Precipitation The detection is carried out optically acc. to the reflection-method with modulated infrared-light on precipitation particles.	Brightness Detection	Meas. range Spectral range Accuracy Electrical output Load resistor	0 ... 100 k Lux 700 ... 1050 nm ±10% of meas. value 3 x 0 ... 10 V, Eastern, Southern and Western Direction ≥ 10 kΩ	
Brightness The brightness is detected by means of three independent photo-diodes which are arranged in 90°-segments. Three independent output voltages are linear to the brightness.	Twilight	Meas. range Electr. output Load resistor	0 ... 250 Lux 0 ... 10 V ≥ 10 kΩ	
Twilight The twilight is detected by a photo diode. A converter transforms the signal into an output voltage, which is linear to the twilight range.	Temperature	Meas. range Meas. element Accuracy Electr. output Load resistor	-20 ... +60 °C Pt100 at IEC 751 1/3 DIN ±0.15 °C at 0 °C 0 ... 10 V ≥ 10 kΩ	
Temperature The temperature sensor is a standardized resistance thermometer - Pt 100 - of longterm stability.	Humidity	Meas. range Accuracy Electrical output Load resistor	0 ... 100% rel. humidity ±3% in the range 10 ... 90% rel. h. 0 ... 10 V ≥ 10 kΩ	
Air humidity The measurement is carried out with a capacitive humidity sensor changing its capacity according to the relative humidity.	General	Operating voltage Current load Temperature range Connecting cable Mounting Weight	24 V AC ±15% 24 V DC ±25% ≤ 150 mA -40 °C ... +60 °C 10 m; LiYCY 12 x 0.14 mm ² , UV-resistant max. 100-m supply at with nominal 24 V Niro-holder clamp on mast or wall max. 1.5 kg	



Humidity, Temperature Pressure, Wind Brightness



Description

Clima Sensors D

**Clima Sensor D
WTF**

**Clima Sensor D
W**

**Clima Sensor D
TF**

Clima Sensor D

The Clima Sensor D serves for the measurement of important environmental data. Depending on the task, it is available as combined measuring instrument. Model D is equipped in addition with a DCF 7 radio controlled clock, and an integrated serial interface. An internal heating serves as protection against dew.

The instrument has

- Analogue outputs and
- Serial interface
- DCF77-receiver for date and time
- Dew protection

The analogue outputs are standard signals and can be used for the connection to commercially available bus systems.

Further description see Clima Sensor

Order No.

4.9110.00.061

4.9100.00.061

4.9111.00.061

4.9101.00.061

Technical Data

	Wind	Precipitation, Brightness, Twilight	Temperature Air humidity
	X	X	X
	X	X	
		X	X
		X	
Wind	Measuring range Accuracy	0,5 ... 40 m/s ±0,5 m/s or ±5% Mb	
Precipitation	Measuring range Sensitivity Switch-off-delay. Load resistance	rain yes / no drizzle approx. 2 minutes ≥ 100 kW	
Brightness for East, South, West	Measuring range Spectral range Accuracy	0 ... 100 k Lux 700 ... 1050 nm ±10% of measuring value	
Twilight	Measuring range	0 ... 250 Lux	
Temperature	Measuring range Accuracy	-20 ... +60 °C 1/3 class B acc. to IEC 751 ±0.1 °C at 0 °C	
Air humidity	Measuring range Accuracy	0 ... 100% rel. humidity ±3 in the range 10 ... 90% rel. h.	
Output analogue	Signal	0 ... 10 V each parameter 0 V for rain, 10 V with dryness Load resistance ≥ 10 kW (≥ 100 kW with precipitation)	
	serial	Type Output Measuring values Output rate	RS 422/485 9600Bd, 8N1, simplex-, half-duplex-operation Instant. values, date and time 1 / sec.
General	Operating voltage Current consumption	24 V AC ±15% 24 V DC ±25% ≤ 150 mA (with heating ≤ 650 mA)	
	Ambient temp. Connecting calbe	-40 °C ... +60 °C 10 m; LiYCY 16 x 0.14 mm ² , uv-resistant max. 100 m at supply with nominal 24 V	
	Mounting	non-corrosive holding clamp for mast or wall	
	Weight	max. 1.5 kg	