

## 8 Technical data

Wind speed		
	Type	Thermal anemometer
	Measuring range	0...40m/s
	Resolution	0.1 m/s
	Accuracy with laminar incident flow	± 5% (± 1.5m/s)
	Resolution	to 10 m/s: ± 1 m/s (rms - mean over 360°) from 10 m/s: ± 5 % (rms - mean over 360°)
Wind direction		
	Type	Thermal anemometer
	Measuring range	1 ... 360°
	Resolution	1°
	Accuracy with laminar incident flow	± 10°
Brightness		
	Type	Silicon sensor
(north, east, south, west)	Measuring range	0...150 kLux
	Resolution	0.1 kLux
	Accuracy	± 3% (± 4.5 kLux)
	Spectral range	475...650 nm
Twilight		
	Type	Silicon sensor
	Measuring range	0...500 Lux
	Resolution	1 Lux
	Accuracy	± 10 Lux
Global irradiance		
	Type	Silicon sensor
	Measuring range	0...1300W/m <sup>2</sup>
	Resolution	1 W/m <sup>2</sup>
	Accuracy	± 10% (± 130 W/m <sup>2</sup> )
	Spectral range	350...1100 nm
Precipitation		
	Type	Guide value measurement, sensor area heated
	Measuring range	1 / 0 (precipitation yes/no)
	Thermal output, sensor dry, bedewing protection	0.1W
	Thermal output, sensor wet drying phase	1.1W
Temperature		
	Type	PT1000
	Measuring range	-30 ... +60°C
	Resolution	0.1 °C

	Accuracy with wind speed >2m/s	± 1 °C (-5°C...+25°C)
<b>Air pressure sensor</b>		
	Type	Piezoresistive
	Measuring range	300...1100 hPa
	Resolution	0.01 hPa
	Accuracy	± 0.5 hPa at 20°C
	Long-term stability	± 0.1 hPa / year
<b>Humidity sensor</b>		
	Type	CMOS capacitive
Relative humidity		
	Measuring range	0...100% rel. humidity
	Resolution	0.1% rel. humidity
	Accuracy	± 10% rel. humidity at 20°C
Absolute humidity		
	measuring range	0...400 g/m <sup>3</sup>
	Resolution	0.01 g/m <sup>3</sup>
Dew-point temperature		
	Measuring range	-30...+60°C
	Resolution	0.1 °C
<b>Inside temperature of housing</b>		
	Type	Silicon sensor
	Measuring range	-30 ... +60°C
	Resolution	0.1 °C
	Accuracy	± 2 °C
<b>Digital interface</b>		
	Type	RS485
	Mode	Half-duplex mode
	Baud rate	1200, 2400, 4800, <b>9600</b> , 19200, 38400, 57600, 115200
	Data format	- ASCII (command interpreter: THIES) - Binary (command interpreter: MODBUS RTU)
<b>General</b>		
Operating voltage		18...30 VDC, 18...28 VAC
	Power consumption	< 300mA at 24VDC
Ambient conditions		
	Temperature range	-30... +60 °C
	Humidity range	Non-condensing
GPS reception		
	GPS receiver with low power consumption, built-in RTC and antenna	
	Holding time of RTC (without voltage supply)	Approx. 3 days
<b>Housing</b>		
	Material	Polycarbonate
	Dimensions	See Dimension drawing
	Weight	0.22 kg
	Type of protection	IP64 in working position
	Type of connection	5-pin plug connector