

REINHARDT

System- und Messelectronic GmbH

Miniature Analog Weather- and Environmental Sensors

For more than 40 years, REINHARDT System- und Messelectronic GmbH have developed, produced and sold sensors for environmental measurements and are one of the leading manufacturers in this market. Long-time experience, constant exchange of experience with customers and market analyses made us miniaturise the sensors and develop them for a market segment that works with evaluation voltages from 0 to 4 VDC. In this way the sensors can be integrated in a monitor and control system. These sensors can be used on their own and as an expansion of the REINHARDT-weather stations.

Sensor for Detection of Precipitation

With an output signal between logical 0 and logical 1 (0 and 5 V) the sensor reliably ascertains the precipitation activity, i.e. if there is precipitation or not. For use all year round, the heating starts working at temperatures below 3 °C (de-ices at freezing temperature, operates properly when there is snow); length with head 53 mm – head diameter 38 mm, 10 mm deep



Applications: Research, climate, domestic engineering, agriculture, health resorts, road maintenance etc.

Sensor for Detection of Cloudiness

With an output signal between logical 0 and logical 1 (5 V in our case) this sensor ascertains by day and by night, independent of the sun or the moon, if the sky is clear or covered by a cloud layer which the human eye may not even see. Cloudiness or non-cloudiness is clearly ascertained. The height of the cloud base can be found through the measured



values. Length 50 mm, diameter 15 mm; M8-thread, cable connection with 5 wires (ground, voltage supply, 3 output signals from 0 and 5 V).

Applications: Astronomy, research, climate

Sensor for Measuring Ultraviolet-Radiation

For measuring UVA-radiation in the wavelength range of 320...395 nm ($S = 0.1 \cdot S_{max}$) and a measuring range from 0–50.000 mW, an output voltage in the range between 0 and 4 V is generated in proportion to the ultraviolet radiation. Length 65 mm, diameter 25 mm



Sensor for Direct Measurement of the Ultraviolet Index

The UVI-AS radiation sensor is for direct measurement of the UV-Index from 0–12 (UV-radiation intensity relevant to sunburn), erythemal action spectrum, output signal 0 to 1.2 V (equal to UV-index 0–12). Length 65 mm, diameter 25 mm.



Applications of both UV-sensors:

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Climate, medicine, research, product stability for plastics and colours, textiles, building material etc...

Sensor for Measuring Global Radiation (Pyranometer)

For measuring global radiation in the range from 0–1.500W/m², an output voltage between 0 and 4V is generated in proportion to the global radiation.

Diameter 25 mm, total length incl. glass hemisphere 76 mm.

Applications: Climate, research, measuring of energies which are used in photovoltaics or in creating solar energy



Sensor for Measuring Light Intensity

This sensor for outdoor use measures light intensity in Lux. Light intensity is measured in the range from 0–150.000Lux (Please ask for other measuring ranges if required.) in a surrounding temperature from -50 °C to +70 °C.

Length 76 mm, diameter 25 mm



Sensor for Measuring Surrounding Temperature

The TE-AS additional temperature sensor with analog output comes in a low-radiation housing. It measures air temperature from -40 °C to +60 °C.

Length 90 mm, diameter 60 mm



Sensor for Measuring Air Temperature and Relative Humidity

The TEFE-AS additional temperature-atmospheric humidity sensor comes in a low-radiation housing and has analog outputs. It is used for measuring air temperature from -40 °C to +60 °C and atmospheric humidity from 10% to 100%, ca. 0–4V voltage output

Length 90 mm, diameter 60 mm



All sensors are designed for outdoor use. They are spray water and rain water tight and are mainly made of high quality steel. The M18-thread on the lower part is for fixing the sensor. It is also the outlet for the cable connection with 3 wires to a 7-pol. socket (ground, supply voltage from 8...20VDC and output signal from 0 and 5V).

E & OE – Specifications subject to change without prior notice

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