

## Radar disdrometer



### Description

The PCTPR031 sensor is a smart radar rain sensor and present weather detector.

Using a 24 GHz Doppler radar, it measures the speed of all forms of condensed water. These include rain, freezing rain, hail, snow and sleet.

The low-energy sensor detects precipitation from the first drop. Its possible uses are nearly unlimited. Whether in hydrology and water management, agricultural and environmental science, building automation, meteorology or airport and traffic control. The rain gauge measures rain almost anywhere in the world.

#### Main features:

- Parameters measured: rain/precipitation quantity, rain/precipitation type (rain, snow, sleet, freezing rain and hail);
- Measurement technology: 24GHz Doppler radar;
- Product highlights: very fast response time, maintenance free measurement, present weather detection;
- Interfaces: RS-485 semi-duplex two wire, SDI-12, pulse interface, Modbus.



Radar disdrometer

Technical specifications may be varied without prior notice

## Technical specifications

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| <b>DIMENSIONS</b>                        |  |
| <b>Diameter x height - weight</b>        | Ø150mm, height 190mm - 0.6Kg.                                  |
| <b>ELECTRICAL PARAMETERS</b>             |  |
| <b>Power supply</b>                      | 10...28 V  |
| <b>Power consumption without heating</b> | 1VA / 0.4 VA (low power mode)                                  |
| <b>Heating power</b>                     | 9 VA   |
| <b>OPERATING PARAMETERS</b>              |  |
| <b>Temperature and humidity range</b>    | -40 ... 60°C - 0 ... 100%                                      |
| <b>Protection class</b>                  | IP66   |
| <b>Survival wind speed</b>               | 75 m/s   |
| <b>PRECIPITATION</b>                     |  |
| <b>Measurement surface</b>               | 9 cm <sup>2</sup>  |
| <b>Precipitation types</b>               | Rain, snow, sleet, freezing rain, hail, drizzle                |
| <b>Measurement principle</b>             | Doppler radar  |
| <b>Accuracy</b>                          | ±0.16mm or ±10% of the measured value for liquid precipitation |
| <b>Resolution liquid precipitation</b>   | 0.01 / 0.1 / 0.2 / 0.5 / 1.0 mm (pulse interface)              |
| <b>MEASUREMENT RANGES</b>                |  |
| <b>Droplet size</b>                      | 0.3 ... 5.0 mm   |
| <b>Drop size distribution</b>            | 11 drop size class with bandwidth of 0.5mm                     |
| <b>Precipitation intensity</b>           | 0.01 ... 200 mm/h  |
| <b>Particle velocity</b>                 | 0.9 ... 15.5 m/s   |
| <b>Solid precipitation</b>               | About 5.1 ... 30 mm  |
| <b>DATA TRANSFER</b>                     |  |
| <b>Interfaces-protocols</b>              | RS485 semi duplex 2 wires, SDI-12, Pulse interface, Modbus     |
| <b>(pluggable) cable length</b>          | 10 m   |

## Ordering codes

Radar disdrometer

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