

Precipitation Sensor economy



Description

Simple tipping bucket precipitation sensor.

Captured by the collector cone, rain drops into one chamber of the tipping bucket. The bucket tips when it has collected an amount of water equal to 0.2 mm of precipitation. As the bucket tips, it causes a switch closure and brings the second tipping bucket chamber into position. Water drains out through the screened drains in the base of the sensor.

Catchment area and resolution meet the recommendations of the WMO (World Meteorological Organization).

A built-in electrical heating allows the sensor to measure the moisture content of snowfall and protects the internal components from freezing rain.

Technical Data

Sensor

Sensing element.....	Tipping bucket
Transducer.....	Magnetic reed switch
Output signal	Potential-free contact closure
Resolution	0.2 mm precipitation per count
Accuracy	0..50 mm/h $\pm (4\% \pm 1 \text{ count})$
	50..100 mm/h $\pm (5\% \pm 1 \text{ count})$
Catchment area.....	200 cm ²

Power Supply

Type	Not required
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Heating

Heating power	24 W
Supply voltage	24 VDC, an adaptor for 250 VAC mains power is supplied with the sensor.

Casing

Material.....	Plastic
Dimensions	ø165 x 240 mm
Weight	1 kg
Mounting	The sensor mounts on a plate with ø170 mm external diameter.

Electrical Connection

Cable.....	4 x 0.14 mm ²
Terminals.....	Open wires

Wiring

black	(+) reed switch
red	(+) reed switch
green.....	(-) reed switch
yellow.....	(-) reed switch

Environmental Conditions

Operating temperature	-20..+50 °C
Relative humidity	0..100%
Maximum wind speed.....	60 m/s

Compliance

Caption area and resolution of the sensor meet the recommendations of WMO (World Meteorological Organization).



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