



FINALLY, A SIMPLE SOLUTION
TO AUTOMATE YOUR HOME.

LOXONE

24V RAIN SENSOR

Part No.: 200018

FEATURES

- Uses reliable electrolytic measurement principle
- Detects both rain and snow
- Operating voltage 24 V DC / AC
- Large, heated sensor surface for faster drying times during winter use
- Dry contact
- Adjustable sensitivity and switching behaviour



TYPICAL APPLICATIONS

- Agriculture and horticulture monitoring and automation
- Control of ventilation and skylights
- Automatic operation of shutters and awnings
- Building control systems
- Weather stations

FUNCTIONAL DESCRIPTION

The large sensor area reacts to rain or snow. The polarity of the output and sensitivity are adjustable. The optional heater prevents condensation and ice forming on the detection surface, whilst aiding drying after rain or snow. At highest sensitivity the device is also suitable for detecting fog.

INTERFACING

The rain sensor is equipped with a dry contact to provide an output signal to connected equipment for instance to the digital input of a Loxone Miniserver. The sensitivity of triggering is adjustable in a wide range. The unit is equipped with a heater for faster drying and to enable snow detection.

TECHNICAL DATA

Operating voltage	24VDC/AC +10%
Current consumption	Sensor 50 mA; Heater 40-180 mA (PTC)
Measuring Principle	Electrolytic measuring process using AC
Dry contact load	max 30V DC / 4 A
Terminals	0.5mm - 1.5mm ² terminal with wire protection
Dimensions	80 mm x 82 mm x 58 mm
Distance between mounting holes	Horizontal: 50 mm, Vertical: 70 mm, diameter: 4.3 mm
Cable inlet	M16
Enclosure	ABS, IP54 rated
EMC	89/336/EEC
Emissions	EN 61000-6-3
Immunity	EN 61000-6-1
Contents	Rain sensor in the housing, cable gland, blank cover, cover screws, documentation

We reserve the right to alter this data at any time!





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CONNECTION

After removing the sensor cover, the cable is inserted through the gland to the screw terminals.

VCC and GND terminals are for the 24V supply and GND respectively. The terminals marked NC, COM, NO, are the dry contacts to a changeover relay that provides the output.

CARE INSTRUCTIONS

The rain sensor is largely maintenance free. The sensor surface may require occasional (e.g. once a year, depending on place of installation) cleaning with a damp cloth. If the sensor signals rain in dry conditions, then this is most certainly due to dirt on the sensing surface.

PRECAUTIONS

- The device is only suitable for low voltage applications and must under no circumstances be operated with mains voltage!
- This does also apply for the dry contact (see technical data) and must not be used to switch mains!
- The IP rating can only be guaranteed if the enclosure is fully intact and has been securely shut using cover screws. The cable gland must be fastened securely and all seals must be fitted properly!

JUMPER SETTINGS

Switching behaviour: The switching behaviour of the relay (energized or de-energized in case of rain) can be selected by moving jumper between T1-T2 or T2-T3. The factory default setting is to jumper T1-T2, this results in the relay to be energized when the sensor surface is moist.

Heating: The optional surface heater is switched on if a jumper connects HZ1-HZ2. To ensure faster drying off and enable operation below freezing the heater should be switched on. For the detection of fog the heater can be turned off.

Sensitivity adjustment: The sensitivity of the device can be adjusted using the potentiometer on the main PCB. To increase the

sensitivity the potentiometer has to be turned clockwise, to decrease sensitivity counter clockwise. The factory default setting which detects “normal” rainfall is the center position. Please note that turning the potentiometer to the either end positions results in no response!

Display: The device has two LEDs, the green LED indicates that the device functional, the red LED indicates the output status (lights up if relay energised).

CONNECTIONS

Terminal block	
REL NC	Relay normally closed
REL NO	Relay normally open
REL CO	Relay common
AC/DC	AC or +24V DC +10%
AC/GND	AC or 0V when using DC

JUMPERS

Configuration		
1	S3	Signaling behavior of BUZ, signal when dry
2	S2	Common contact to S3, S1
3	S1	Signaling behavior of BUZ, signal when wet
4	GND	Ground signal
5	BUZ	24V signal
6	T3	Switching behavior of relay, energise when dry
7	T2	Common contact to T3, T1
8	T1	Switching behavior of relay, energise when wet
9	HZ1	Heating
10	HZ2	Heating
Factory default: S3-S2 T1-T2 HZ1-HZ2		

