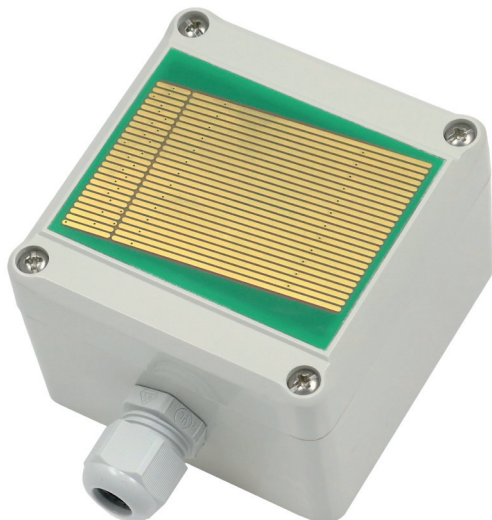


OPERATION MANUAL

Rain Detector REGME model 12 V AC/DC or 24 V AC/DC

Description



Technical Data

| | |
|-------------------------------------|--|
| Measurement method | Electrolytic AC measurements |
| Input current | |
| 12 V Model | 60 mA, Heater 80 - 300 mA (PTC) |
| 24 V Model | 50 mA, Heater 40 - 180 mA (PTC) |
| CE-Conformance | 2014/30/EU |
| EMV-noise emission | EN 61000-6-3:2011 |
| EMV-noise withstanding | EN 61000-6-1:2007 |
| Cable gland | M16 x 1,5 |
| Clamping area | 3,0 - 8,5 mm |
| Operating voltage chooseable: | 12 V AC/DC \pm 10% 24 V AC/DC \pm 10% |
| Output | output (relay) 30 V / 4 A, NO / NC selectable |
| Operations temperature | -30...70 °C |
| Housing | ABS, ingress protection IP54 |
| Dimensions (w x h x d) | 80 x 82 x 58 mm |
| Article | Art.-No. |
| Rain Detector 12 V | REGME-12V |
| Rain Detector 24 V | REGME24V |
| Combined wall/mast mounting bracket | REGME-WAHA |

Features

- Safe operation, electrolytic measurement principle
- Deposition can be detected as rain or snow
- Operating voltage 12 or 24 V DC/AC
- Large, heated sensor area for fast drying and operation in winter season
- Potential free contact output (Relay) 30 V/4 A
- Sensitivity and switching mode adjustable
- Universal wall/mast mounting bracket as accessories

Applications

- Nurseries, Agriculture
- Control of Ventilation panels
- Automatic switch for Blinds and Rolling windows
- Building instrumentation
- Weather stations

Functional description

The large sensor area reacts to rain or snow. The switch polarity and sensitivity are adjustable. The optionally switched heater prevents freezing or dew formation and accelerates drying. In the maximum sensitivity setting, the device is also suitable for recognizing fog. The mast or wall mounting bracket, which is available as an accessory, enables easy installation.

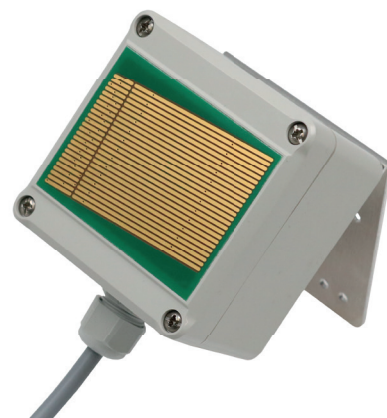
Typical applications are in nurseries, in agriculture, in building services, but also in home and garden.

Application

The rain guard is fitted with a relay contact for switching low voltages up to 30 V DC/AC which can be used to operate any switching device e.g. a marking control device. Sensitivity can be adjusted within a wide range. The device is provided with a heater for faster drying and snow recognition.

Mounting

Installation of the rain sensor unit should be carried out by only authorised personnel. The applicable safety regulations should be followed! The Rain Sensor can be installed on a wall/mast mounting bracket. If such accessories are not used, care should be taken that the mounting angle is approximately 45 ° from horizontal. Mounting of the Rain Sensor should be done at a place which is freely accessible for rain. Dripping water can adversely delay switching back or can lead to a permanent ON/OFF of the contacts.



Connection

After removing the sensor cover, the control cable is to be inserted in the cable gland M16. Supply voltage is to be connected to the terminals VCC and GND. Terminals NC, COM, NO are the potential free changeover contacts for switching.

OPERATION MANUAL

Rain Detector REGME model 12 V AC/DC or 24 V AC/DC

Commissioning / Functional notes

When the operating voltage is applied, the relay picks up once due to the switch-on process, even in dry condition, and drops out after the set time if the sensor surface is dry.

Precautions:

- The device is suitable only for low voltages and should not be operated on mains supply !
- The relay contact is only suitable for low value signals and should not come in contact with mains supply !
- The protection type is valid only with an intact, complete casing, cover screws and cable gland properly tightened, and the covergasket should always be available on the sensor cover !
- The suitability for certain applications is to be checked by the user
- The „SENS“ and „TIME“ potentiometers are to be adjusted only with tools intended for this purpose (e.g. a precision screwdriver or trimmer).

Settings

Signal generator output (optional)

At the connection terminals (Pin BUZ and GND) a passive Piezo signal generator can be connected. The condition of signal (acoustic signal for dry or wet) can be selected with the plug links S1-S2 or S2-S3. In the default-position S2-S3, the signal generator is inactive for rain.

Switching mode

The switching mode of the relay (pickup or dropout with rain) can be selected with the plug links T1-T2 or T2-T3. In the factory settings, link T1-T2 is connected and the relay closes if the sensor surface gets wet.

Heating

The sensor surface is heated, if the link of HZ1-HZ2 is connected. To ensure faster drying and for operation below freezing point, the heater should be switched on. For sensing fog, the heater can be switched off.

Automatic heating

The heating is only switched on when the sensor surface is wet.

Sensitivity setting

The sensitivity for detecting rain can be adjusted with the potentiometer „SENS“. Rotating the potentiometer clockwise results a higher sensitivity. For detecting rain mostly the middle position of the potentiometer is suitable.

Relay time delay

As soon as rain is detected and the relay has been switched (on or off, depending on the jumper setting), it is switched back to the starting position with a time delay. The time during which the relay is switched on or off (depending on the jumper setting) can be set from approx. 40 millisecond to 165 seconds using the „TIME“ potentiometer. If rain is detected again while the time delay is active, it starts again.

Indicators

There is a green LED on the device to indicate the operation status and a red LED to indicate the switch position (meansrelay contact closed).

Maintenance

The Rain Sensor unit is almost maintenance free. The sensor surface must be occasionally cleaned with a moist cloth (e.g. once annually, depending on the place of installation). In case of persistent condition, even if it does not rain, it triggers due to strong contamination.

Connection Layout

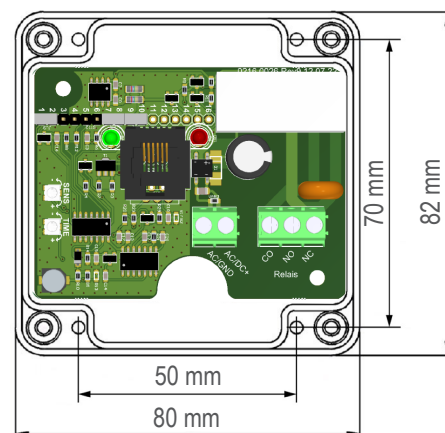
| | |
|--------|--------------------------------------|
| NC | Opening switch contact |
| NO | Closing switch contact |
| CO | Common switch contact |
| AC/DC | Operating voltage AC or 24 V DC +10% |
| AC/GND | Operating voltage AC or 0 V |

Plug Links Configuration

| | |
|-------|------------------------------------|
| 1 | Switch mode signal generator (dry) |
| 2 | Common contact to S3 and S1 |
| 3 | Switch mode signal generator (wet) |
| 4 | Signal generator ground |
| 5 | Signal generator output |
| 6 | Switch mode relay (dry) |
| 7 | Common contact to T3 and T1 |
| 8 | Switch mode relay (wet) |
| 9 | Heating |
| 10 | Heating |
| 11-16 | not occupied |

Dimensions

Potentiometer:
SENS
TIME



Accessoires

wall / mast mounting bracket
including mounting hardware



Attention

Please avoid extreme mechanical and inappropriate exposure.

The device/product is not suitable for potential explosive areas and medical-technical applications.