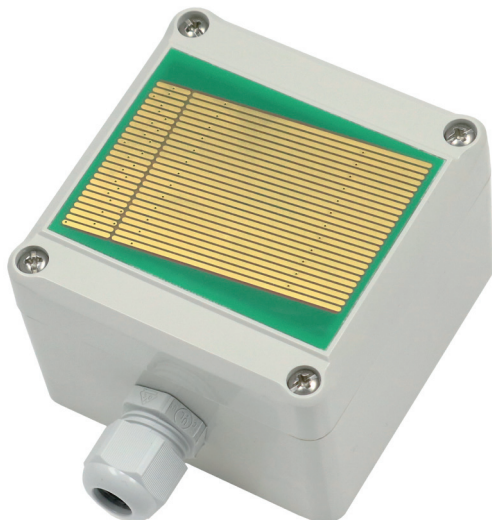


# OPERATION MANUAL

## 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.

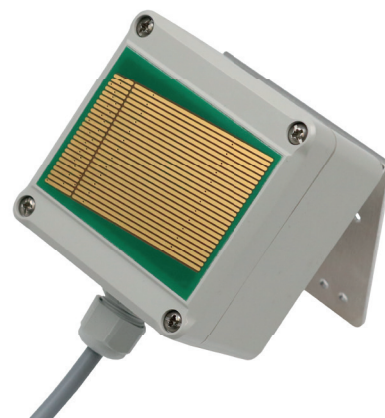
Typical applications are in nurseries, in agriculture, in building services, but also in home and garden.

### 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. Note: When screwing on the sensor cover, mount it as shown on the picture.

# 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)

A passive Piezo-signal generator can be connected at the plug connector (Pin BUZ and GND). The status of signal (acoustic signal at dry or wet) can be adjusted with the jumper plugs S1-S2 or S2-S3. In the position S2-S3, the signal generator is active on detecting leakage.

#### Switching mode

The switching mode of the relay (closed or open during wet) can be adjusted with the jumper plugs of T1-T2 or T2-T3. In the factory routine adjustment, the jumper T1-T2 is plugged and the relay closes if the sensor surface is 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 (means relay 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.

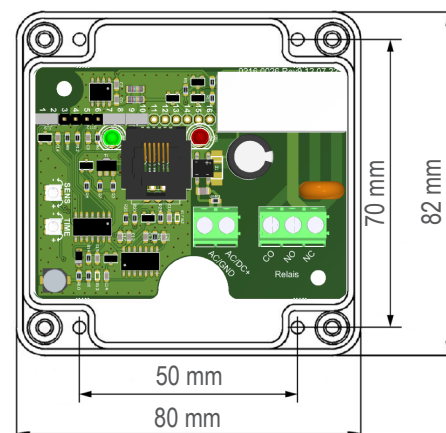
Clamp	Function	Description
1	AC/GND	Operating voltage 12 or 24 V AC/DC+
2	AC/DC+	Operating voltage 12 or 24 V AC/DC+
3	REL-COM	Common switch contact
4	REL-NO	Closing switch contact
5	REL-NC	Opening switch contact

Configuration		
1	S3	Signal generator switching mode (dry)
2	S2	Middle contact for S3, S1
3	S1	Signal generator switching mode (wet)
4	GND	Signal generator grounder
5	BUZ	Signal generator output
6	T3	Relay switching mode (dry)
7	T2	Middle contact for T3, T1
8	T1	Relay switching mode (wet)
9	HZ1	Heating
10	HZ2	Heating

Factory settings: S3-S2, T1-T2, HZ1-HZ2

### 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.