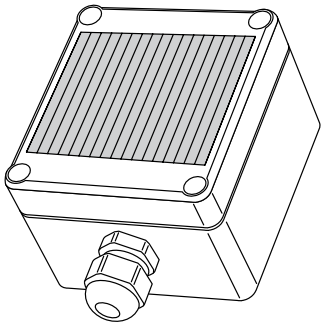
GEIGER
ANTRIEBSTECHNIK

Rain sensor
GRS001



EN **Original assembly and operating instructions**

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1. General information

Dear customer,

By purchasing a GEIGER rain sensor you have decided on a quality product from GEIGER.

Thank you very much for your decision and the confidence placed in us.

2. Guarantee

In the case of incorrect installation contrary to the operating instructions and/or constructional modification, the legal and contractual guarantee for property damage and product liability lapses.

3. Sensor-specific safety information

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Please observe following instructions in order to avoid damage to this product:

- **The device is only suitable for low voltage 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 only given with an intact casing, the cover screws and the cable gland must be properly tightened. The cover gasket inside the sensor cover must be intact.**
- **The suitability for certain applications should be checked by the user.**

4. Mounting

The installation of the rain sensor must be carried out by an authorized electrician. The relevant safety regulations must be observed. The rain sensor can be mounted on a wall/mast holder. Otherwise, make sure you have a horizontal mounting bracket approx. 30 °. The tips of the sensor surface must point downwards. The rain sensor should be installed at some unprotected place where the rain falls down. Dripping water can delay the switching back or lead to a permanent ON/OFF operation.

Matching mounting accessories (article nr.GRS002) must be ordered separately.

5. Connection

After unscrewing the sensor cover, the control cable is inserted in the cable gland M16.

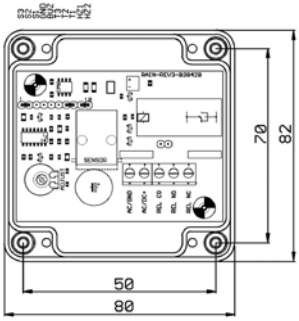
Supply voltage is to be connected to the terminals VCC and GND. The potential free change-over contact is connected to the terminals NC, COM, NO.

Connection assignment / terminal block		
REL NC	Opening switch contact	
REL NO	Closing switch contact	
REL CO	Bockpol switch contact	
AC/DC	Operating voltage AC or 24 V DC +10%	
AC/GND	Operating voltage AC or 0 V	
Jumper settings		
1	S3	Switch mode signal generator (dry)
2	S2	Common contact to S3 and S1
3	S1	Switch mode signal generator (wet)
4	GND	Signal generator ground
5	BUZ	Signal generator output
6	T3	Switch mode relay (dry)
7	T2	Common contact to T3 and T1
8	T1	Switch mode relay (wet)
9	HZ1	Heating
10	HZ2	Heating

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

6. Signal generator output (optional)

A passive Piezo signal generator can be connected to the connection terminals (pin BUZ and GND). The condition of the signal (acoustic signal for dry or wet) can be selected with the jumpers S1-S2 or S2-S3. In the default setting S2-S3 the signal generator is inactive in case of rain.



7. Switching behaviour

The switching behaviour of the relay (energized or de-energized in case of rain) can be selected by moving the jumpers between T1-T2 or T2-T3. In the factory setting the jumper T1-T2 is inserted and the relay is energized when the sensor surface gets wet.

8. Heating

The sensor surface is heated when the jumper of HZ1-HZ2 is inserted. The heater should be switched on to ensure faster drying or to enable operation at temperatures below freezing point. In order to detect fog, the heater can be switched off.

9. Sensitivity setting

The sensitivity of the rain sensor can be adjusted via potentiometer. A higher sensitivity is achieved by turning the potentiometer clockwise (left = high sensitivity, right = low sensitivity). The middle position is most suitable for a normal rain signal.

Please note that no functions are affected to the end stops.

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10. Technical data

Measurement method	Electrolytic AC measurement
Current consumption **12 V version** **24 V version**	 60 mA, heating 80 - 300 mA (PTC) 50 mA, heating 40 - 180 mA (PTC)
EMC interference emission	EN 61000-6-3:2001
EMC interference immunity	EN 61000-6-2:2001
Cable gland	M16 x 1,5
Operation voltage	12 V AC/DC ± 10% 24 V AC/DC ± 10%
Output	Potential free switch output (relay) 30 V/ 4 A, (select make/break contact)
Housing	ABS, protection type IP54
Dimensions (width x height x depth)	80 x 82 x 58 mm

Subject to technical modifications

11. Care instructions

The rain sensor unit is almost maintenance-free. The sensor surface may require occasional cleaning (e.g. once a year depending on the place of installation) with a damp cloth.

If heavily soiled, the rain sensor may be incapable of performing its functions.

12. Waste Disposal

Recycling of packaging materials

In the interest of environmental protection, please contact your local government's recycling or solid waste management department to learn more about the services it provides.

Waste disposal of electric and electronic equipment

Electronic equipment or batteries cannot be discarded along with the normal household waste. Keep for more information on the recycling and disposal methods envisaged by the local regulations in your area.

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For technical questions, please call our service team at: +49 (0) 7142 938 333. They will be happy to assist you.

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