



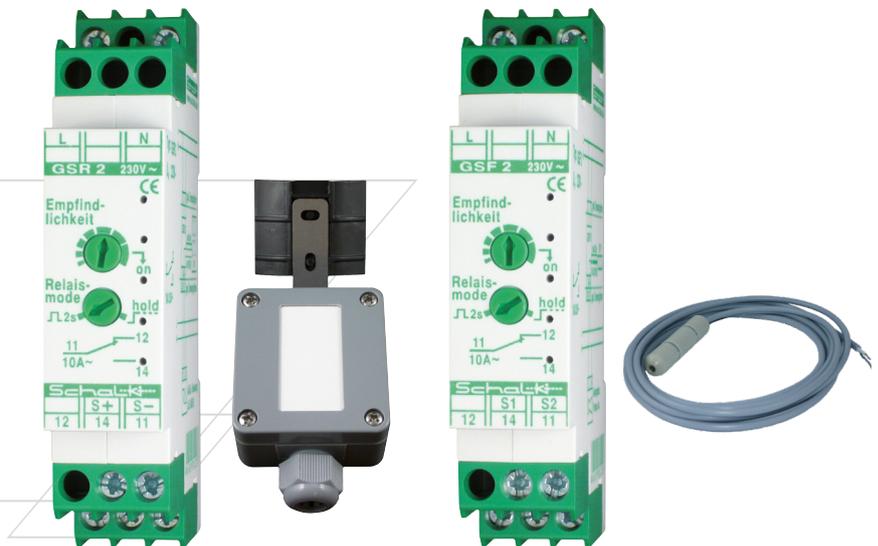
# Limit-value switch for rain GSR 2 Rain sensor SR 1

# Limit-value switch for liquid GSF 2 Liquid sensor SF 1

Electronic evaluation device with internally generated sensor supply voltage to protect against damage from liquids.

### Special features

- ▶ Potential-free changeover contact
- ▶ Potential-free sensor supply (PELV)
- ▶ Display for switching threshold
- ▶ Very low power consumption
- ▶ Simplest installation and handling



Measuring relays

### General information

The GSR 2 and GSF 2 limit switches can be used on many sides, yet are uncomplicated and easy to use. The GSR 2 is used in conjunction with the SR 1 sensor for rain detection. The GSF 2 in conjunction with the immersion sensor SF 1 is used for monitoring liquid levels. The connected sensor is supplied directly by the limit switch with a potential-free low voltage (PELV). The use of an additional power supply is therefore not necessary.

### Applications

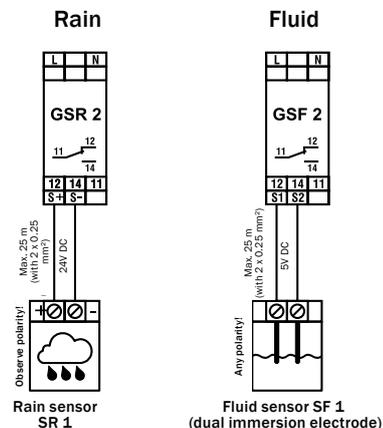
Protection against rainwater damage, level monitoring, dry-running protection, etc.

### Operation

Exceeding the set sensitivity is immediately indicated by the "hold" LED. At the same time, the relay contact is also activated. Depending on the "Relay mode" setting, the relay is only energised for 2 seconds or remains switched through during the entire signalling phase. For example, subsequent controls can still be operated if

required, or control via the limit switch has priority. The fixed follow-up time of 30s ensures a continuously stable switching state even if the switching threshold is not reached for a short time.

### Example connections



## Technical data GSR 2 / GSF 2

Operating voltage:	230 V 50/60 Hz 10 %
Power consumption:	GSR 2: 1,2 W GSF 2: 0.4 W
Switch-off delay	30s
Sensor supply	<b>GSR 2:</b> approx. 24 V DC (PELV) <b>GSF 2:</b> approx. 1 V AC (PELV)
Relay output	1 CO 250 V AC potential-free, 10 A
Contact rating	see data sheet: "Relay contact rating"
Ambient temperature	-10°C to +45°C
Connection terminals	Socket terminals with captive screws M3.5
Clamping range	0.5 mm <sup>2</sup> - 4.0 mm <sup>2</sup>
Strip length	6.0 mm - 6.5 mm
Screwing torque	0.80 Nm
Mounting orientation	arbitrarily
RAL colour	grey 7035 / green 6029
Weight	approx. 75 g

## Technical data SR 1

Type of sensor	capacitive with heated surface
Heating capacity	approx. 0.6 W
Mounting	Mounting bracket for wall or mast mounting
Feed line	max. 25 m (with 2 x 0.25 mm <sup>2</sup> )
Dimensions	64 x 58 x 34 mm
RAL colour	grey 7035
Weight	approx. 90 g

## Technical data SF 1

Type of sensor	Resistance immersion sensor
Feed line	2 m (extendable to max. 25 m)
Dimensions	l=45 mm Ø=10 mm
RAL colour	grey 7035
Weight	approx. 25 g
RAL colour	grey 7035

## Order data

Item no.	EAN	Type	Designation
gsr209	4 046929 301237	GSR 2	Limit-value switch for rain
SR1000	4 046929 301244	SR 1	Rain sensor
GSF209	4 046929 301220	GSF 2	Limit-value switch for liquid
SF1000	4 046929 301251	SF 1	Liquid sensor