

Monitoring relay  
**SNR - Liquid level relay with 1 Changeover**  
 11.25mm housing



### Application

Monitoring of conducting liquids.

### Description

The **SNR liquid level relay** monitors the levels of conducting liquids such as fresh or waste water. With the potentiometer located on the relay's front panel, it is possible to adjust the SNR for use with other conducting media. The relay operates with 230V AC voltage connected to the terminals A1 and A2. The green LED indicates the connection to the power supply and the red LED indicates the relay's working position. There are two possible modes of operation.

### Function

**Level monitoring:** Terminal B1 forms the reference electrode and terminals B2 and B3, bridged together, form the sensing electrode. The relay switches into its working position as soon as the sensing electrode comes into contact with the liquid to be monitored. The SNR returns to its rest position as soon as the liquid ceases to contact the electrode.

**Two-position control:** Terminal B1 forms the reference electrode, terminal B2 the minimum electrode and terminal B3 the maximum electrode. The output relay switches into its work position as soon as all three electrodes come into contact with the liquid. It returns to its original position as soon as the liquid ceases to contact the electrodes B2 and B3.

### Options

Other supply voltages available upon request.

### Part number

018004	2.5...25kΩ	SNR Liquid level relay 230V AC
018003	5...50kΩ	SNR Liquid level relay 230V AC
018002	10...100kΩ	SNR Liquid level relay 230V AC
018001	50...500kΩ	SNR Liquid level relay 230V AC

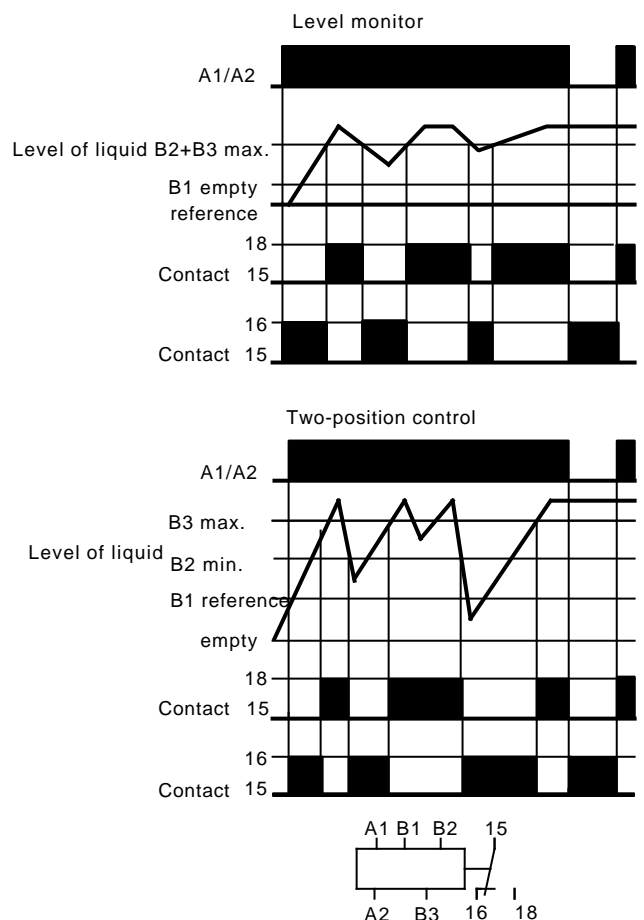
### Adjustments

When all electrodes are in contact with the conducting liquid that is to be monitored, turn the sensitivity potentiometer in the direction of the maximum value until the relay energizes (red LED is on). If the relay does not energize, then an HSB liquid level relay with a higher setting value must be used.

### Approvals



### Function diagram



### Mounting

Snap-on mounting using a standard DIN rail EN 50022. The unit is designed to allow side-by-side mounting, with an ambient temperature of < 60°C.

### Part number

018005	2.5...25kΩ	SNR Liquid level relay 24V AC
018006	5...50kΩ	SNR Liquid level relay 24V AC
018007	10...100kΩ	SNR Liquid level relay 24V AC
018008	50...500kΩ	SNR Liquid level relay 24V AC

# Monitoring relay SNR - Liquid level relay with 1 Changeover

11.25mm housing

## Technical data

### Supply

Supply voltage: 230V AC -15 / +10%  
24V AC -15 / +10%

Frequency range: 50 ... 60Hz  
Power consumption: 230V - 7VA  
24V - 1,5VA

Operation mode: continuous  
Insulation voltage: 1kV / DC

### Measuring range

Sensor voltage: < 7.5V  
Sensor current: approx. 1mA  
Response sensitivity: 2.5...25kΩ  
5...50kΩ  
10...100kΩ  
50...500kΩ

### Operation indicators

Supply voltage: LED, green  
Relay in work position: LED, red

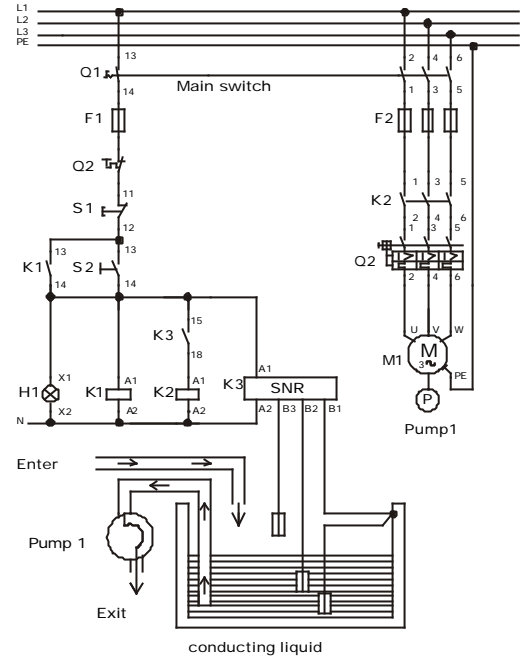
### Contact

Number of changeovers: 1  
Contact material: AgSnO<sub>2</sub>  
Maximum switching voltage: 250 V AC  
Maximum switching current: 4A  
Drop-off time of switching element: approx. 20ms  
Mechanical life: 30 Mio.  
Electrical life (with rated load): 0.8 Mio.  
Operation principle: operating current

### General Data

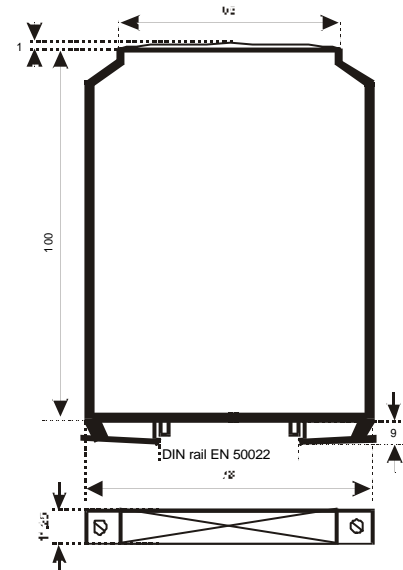
Ambient temperature: - 25 ... + 60°C  
Climate resistance: VDE 0435T.2021  
Mounting position: any  
Vibration resistance: VDE 0435T.2021  
Test voltage: 2.5kV  
Protection class: Terminals IP 20  
Housing IP 40  
Connection terminals: Crosshead screws;  
M3.5 self opening  
Connection cross section: Multi-strand wire with  
wire sleeves 2 x 2.5mm<sup>2</sup>  
single wire 2 x 2.5mm<sup>2</sup>  
Finger touch proof: VDE 0106T.100 and  
VBG4  
Mounting: Symmetrical DIN rail  
EN 50022  
Dimensions l x w x h: 78mm x 11.25mm x  
110mm  
Weight: 77 g

## Example



After actuation of sensor S2 the monitoring is active.

## Dimensions



## Connections

The terminal assignment for the connections is located on the front panel of the relay. **Reading the front panel from top to bottom**, the connections are in the following order:

LED side: B2 – B3 – A1 – 15  
Potentiometer side: B1 – A2 – 16 – 18

上海悦中电气设备有限公司  
上海恒通路360号一天下大厦24C  
TEL: 021-62246890  
FAX: 021-52240873  
Http://www.skjd.cn  
E-mail: shskjd@126.com