

Type **SNR-01/ -02**

basic @ level

Monitoring Relay / Level Relay



APPLICATION

Monitoring of conducting liquids.

DESCRIPTION

The **SNR-01 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 set up the SNR for use with other conducting medias. The relay operates depending on part number with either 24V UC or 230V AC connected to the terminals A1 and A2. The green LED indicates the connection to the power supply and the yellow LED indicates the relay's working position. The measuring circuit is galvanically isolated to the supply voltage.

FUNCTION

Level monitoring: Terminal B1 forms the reference electrode and terminal B3 forms the sensing electrode. As soon as B3 gets contact to the conducting liquid does the delay time begin to run. If the device is set up for "filling" then does the relay switch to its rest position after delay time has elapsed. If the device is set up for "emptying" then does the relay switch to its working position after delay time has elapsed. If the liquid level sinks below electrode B3, then does the adjusted delay time start to run again. At this state does the device switch, to its working position if it is set up for "filling" or it does switch to its rest position if it is set up for "emptying", after delay time has elapsed.

Two-level-controller: Terminal B1 forms the reference electrode, terminal B2 the minimum electrode and terminal B3 the maximum electrode. Device behaves like "Level monitoring", but with hysteresis and switching threshold between electrodes B2 and B3.

OPTION

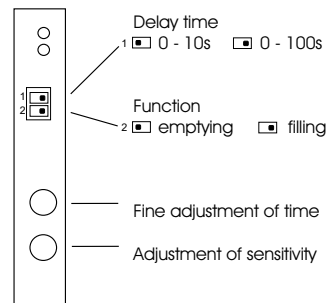
Other supply voltages and measurement ranges available upon request.

Order Code

SNR-

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Version	
Switching contact electromech. relay	01
Switching contact semi cond. relay SSR	02
Power Supply	
24VUC	01
48VUC	05
110VAC	06
230VAC	02



TECHNICAL DATA

Supply

Supply voltage : +/- 15%
 Frequency range : 0 / 50 ... 60Hz
 Power consumption : approx. 2W
 Operation mode : continous
 Insulation voltage : 1000V DC

Version look Order Code

Measuring circuit

Sensor voltage : < 6V AC
 Sensor current : approx. 1mA AC
 Response sensitivity : 5...300kOhm
 Delay time : 10: 0 - 10s
 100: 0 - 100s

Operation indicators

Supply voltage : LED, green
 Relay in working range : LED, yellow

Switching Contact electromech. relay

Number of changeover : 1
 Contact material : AgSnO₂
 Max. switching voltage : 400 V AC
 Max. switching current : 6A
 Max. switching power AC : 1500 VA

Switching Contact semi cond. relay SSD

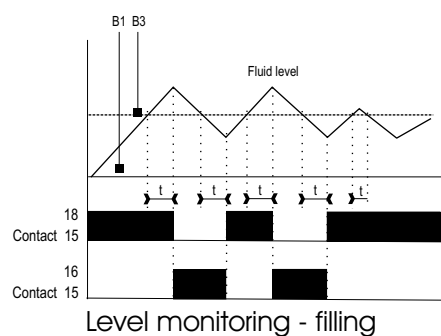
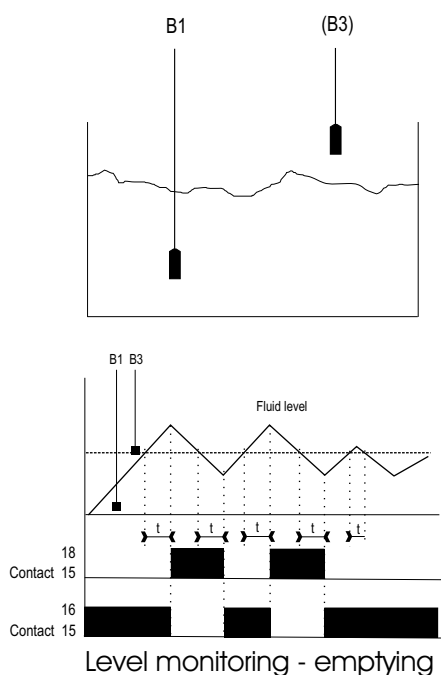
Contact material: Semi cond. relay SSR
 Switching point max. 40VDC/30VAD
maker15/18
 Switching current max: 400mA UC
 Internal resistance: 2 Ohm
 Starting current max: 1A<10ms
Breaker 15/16
 Switching current max: 150mA UC
 Internal resistance: 5 Ohm
 Starting current max: 350mA<10ms
 Isolation voltage: 1500V rms

General Data

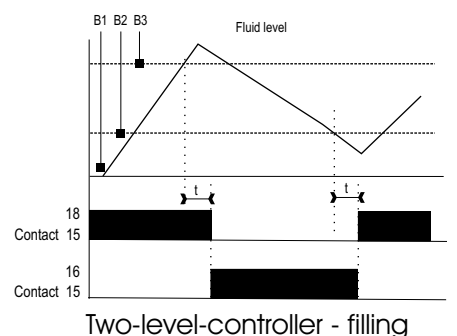
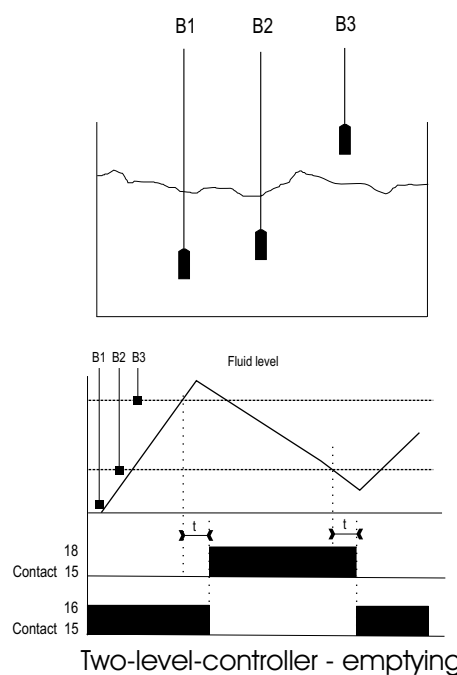
Ambient temperature : 0 ... + 60°C
 Climate resistance : VDE 0435T.2021
 Mounting position : any
 Vibration resistance : VDE 0435T.2021
 Test voltage : 2,5kV
 Connection terminals : Crosshead screws; M3,5 self opening 2 x 2,5mm²
 Wire size :
 Protection against accidental contact : VDE 0106T.100 / . VBG4
 Mounting : Symmetrical DIN rail EN 50022
 Dimensions l x w x h : 78mm x 11,25mm x 110mm
 Weight : 69 g

2016-10

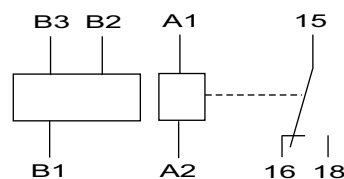
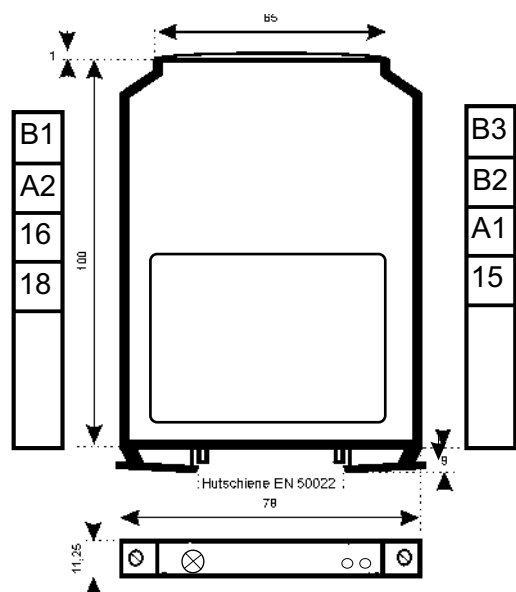
Level Monitoring



Two Level Controller



DIMENSIONS



APPROVALS



MOUNTING

Snap-on mounting using a standard DIN rail En50022. The unit is designed to allow side-by-side mounting, with an ambient temperature of <math><60^{\circ}\text{C}</math>. Useable at any mounting position.