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# Реле уровня для проводящих жидкостей серии SNDA

tecfluid

TecFLUID
The art of measuring

# DOUBLE LEVEL CONTROL FOR CONDUCTIVE LIQUIDS - NO/NC CONTACTS SNDA SERIES

## Benefits

- Simple, reliable and economical
- Two independent level controls
- NO/NC contacts
- Maximum and/or minimum level control
- Sensitivity 10 KOhms to 100 KOhms

## Apps

- Control of two separate tanks
- Control of two pumps with stopping at a single level point
- Maximum and/or minimum alarm level control

## Functioning

Maximum and minimum level control: Relay 1 is activated when the liquid level reaches the highest level of the electrodes (Y2) and deactivated when the liquid dropsbelow the electrodeminimum level (Y1). Relay 2 is activated when the liquid level reaches the highest level of the electrodes (Y4) and deactivated when the liquid drops belowof the'minimum level electrode (Y3). Maximum or minimum level control : The terminals of the maximum and minimum electrodes must be united (relay 1: Y1-Y2) (relay 2: Y3-Y4). The relay is activated when the liquid level reachesthe electrodeand it is deactivated when it drops below the latter.

## Technical data

LED indication: Voltage present: Green
Relay On: Red
Sensitivity: Adjustable from 10 ...100KΩ
Probe voltage: 24 VAC
Probe current: 4mA (short-circuited)

### Characteristics of the probe cable

Cables are usually used 1 .. 2.5 $mm^2$with good insulation and unshielded. In some installations, where the power line and probes are parallel in the same tube and long distances, we recommend using shielded cable. The insulation resistance betweencables and ground must be at least 200 kΩ.The braid is connected to the reference (ground).

### Ground connection

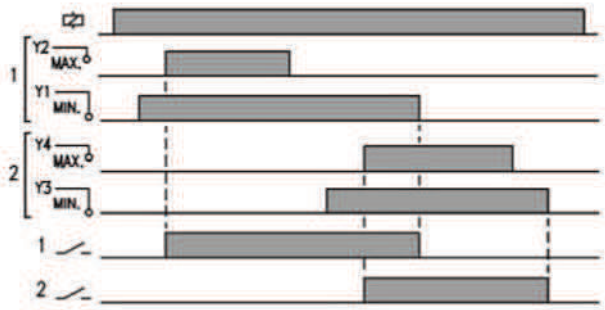
If thetank is not conductive,an additional probe must be installed to connect the reference (ground) to terminal Z1.

**Probes and accessories**:Electrodes: NS, NR 43650, ARN 43650, NR, NRA, NT, PNR, NP, NRT2.
Electrode Separators: NR.SEP, NRA.SEP - Nuts: NR.TUE/P, NR.TUE/T Surge Protector: PS-3

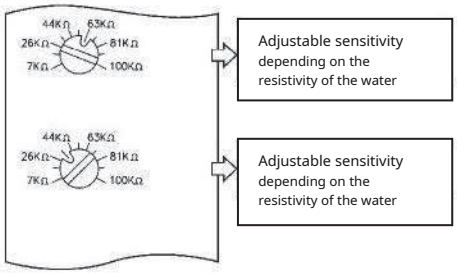
**SNDA dual level control**

| Housing | Function | Exit | Tension | Range |
|---|---|---|---|---|
| S Area | Dual level | A 1+1 NO | **024** 24VAC<br>**048** 48VAC<br>**110** 110..125VAC<br>**230** 220..230 VAC<br>**400** 380..415 VAC | 100 10KΩ..100KΩ |

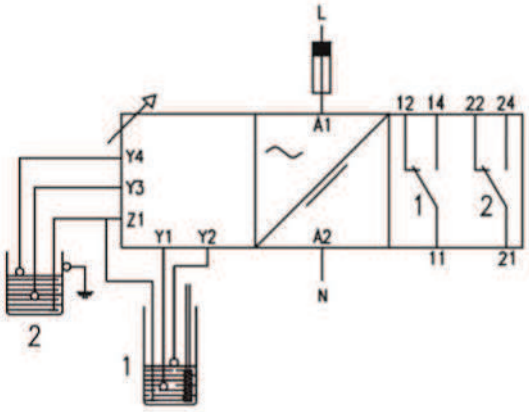
## Operation diagram



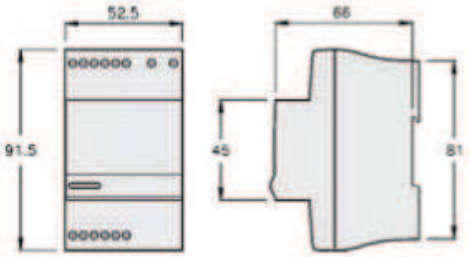

## Setting




## Login



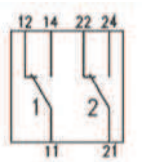

## Dimensions




## Supply voltage

| | AC<br>SNDA |
|---|---|
| |  |
| Isolation galvanic | Yes |
| Consumption | 3.2VAC |
| Frequency | 50/60Hz |
| Margins of work | + /-10%...-15°C |
| Positive | - |
| Polarity protected | - |

## Output relay

| | | SNDA |
|---|---|---|
| | |   |
| resistive load | AC | 10A / 250V |
| | CC | 0.4A / 200V<br>10A / 24V |
| Inductive load | AC | 5A / 250V |
| | CC | 5A / 24V |
| Mechanical life | | > 30x10$_6$operations |
| Max. mechanical operation | | 72,000 operations / hour |
| Electrical life at full load | | 360 operations / hour |
| Contact material | | Ag Ni 90/10 |
| Max voltage | | 440VAC |
| Operating voltage | | 250VAC |
| Voltage between inverters | | 2500VAC |
| Voltage between contacts | | 1000VAC |
| Coil/contact voltage | | 5000VAC |
| Coil/contact distance | | 10mm |
| Insulation resistance | | > 10$_4$MΩ |

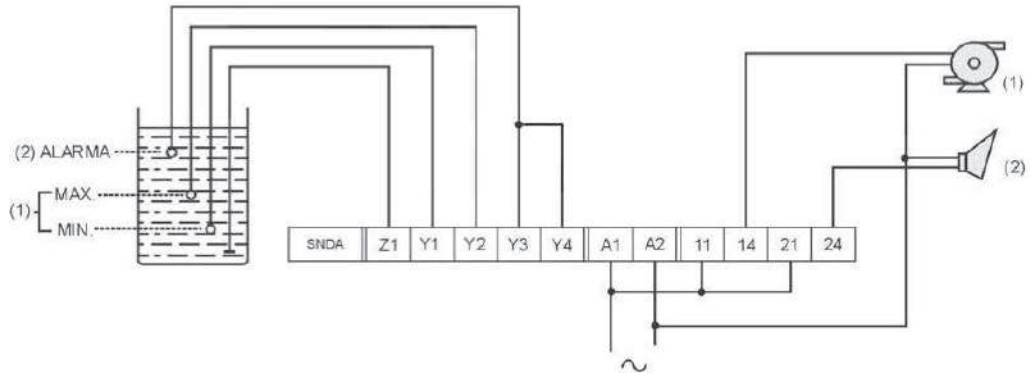
## Technical data

| | SNDA | |
|---|---|---|
| Neutral phase voltage | 300V | |
| Overvoltage category | III | |
| Impulse voltage | 4kV | |
| pollution degree | 2 | 3 |
| Degree of protection | IP 20 B | IP20 |
| Approximate weight | 250g | 280g |
| Storage temperature | - 50...+85°C | |
| Temp. Operating | - 20...+50°C | |
| Humidity | 30...85% RH | |
| Housing | Cycoloy, light gray | |
| Base | Lexan, light gray | - |
| LED viewfinder | Lexan, Clear | |
| Buttons, terminals and base | Technyl, dark blue | |
| Basic terminal blocks | Nickel-plated brass | - |
| Screw terminals | - | Brass |

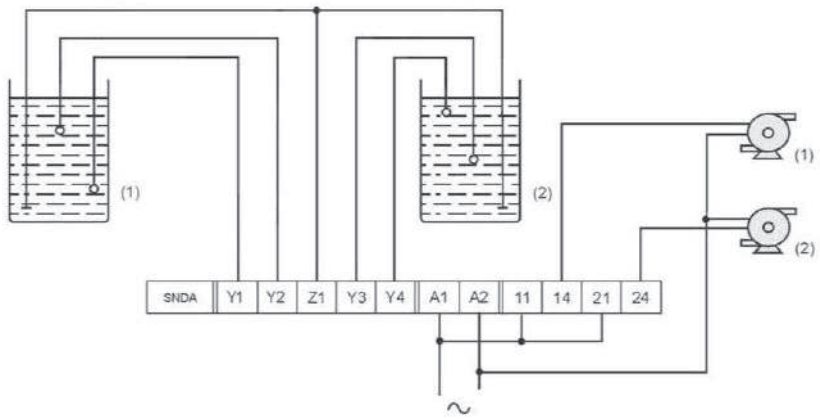
**Standards**:Designed and manufactured under EEC regulations.
Electromagnetic compatibility, directives 89/366/CEE and 92/31/CEE.
Electrical safety, directive 73/23/CEE.
Plastic materials: UL 91 V0

# Examples of connections

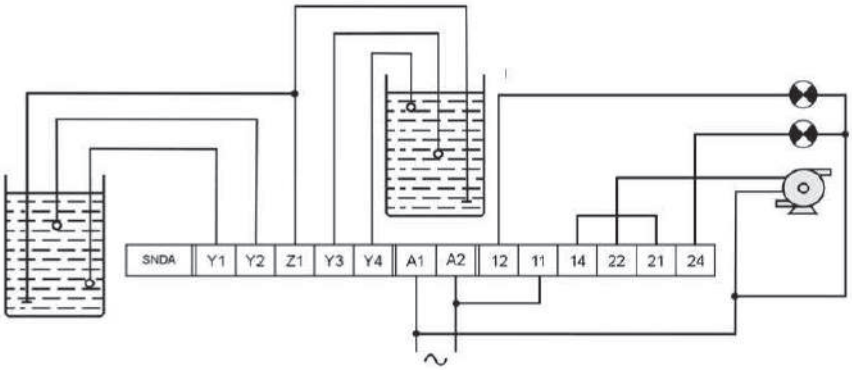
## Emptying control and maximum level alarm




## Emptying control of two separate tanks




## SNDA: Well/reservoir level control

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