

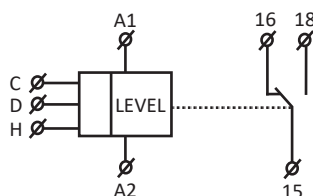
## Montec-Level

### Level Switch



The Montec-Level is used to control levels in wells, basins, reservoirs, tanks etc. Two configurations can be selected, a single switch with single state monitoring (monitors one level) or a single switch with double state monitoring (monitors two levels - switches on one level and opens on another).

- Selectable pump function: pump up (filling) or pump down (emptying)
- Adjustable time delay of output (0.5 - 10s)
- Adjustable sensitivity (5kΩ - 100kΩ)
- Measuring frequency 10Hz prevents polarisation of liquid and oxidation of probes
- Galvanically separated supply voltage 24Vac/dc - 240Vac/dc
- Output contact 1 x changeover 8A / 250V AC1
- 1-module, DIN-Rail mounting



Order Code

**Montec-Level**

### Montec-Level Technical Specification

|  |   |
|--|---|
| Number of Functions                    | 2   |
| Supply Terminals                       | A1 - A2   |
| Supply Voltage                         | 24Vac/dc - 240Vac/dc (AC 50 - 60Hz)                 |
| Consumption                            | 2VA / 1.5W max.                                     |
| Max. Dissipated Power (Un + Terminals) | 2W  |
| Supply Voltage Tolerance               | -15%, +10%  |
| Sensitivity                            | Adjustable Range 5kΩ - 100kΩ                        |
| Voltage on Electrode                   | AC 3.5V max.  |
| Current in Probes                      | AC < 0.1 mA   |
| Time Reaction                          | 400ms max.  |
| Max. Cable Capacitance*                | 800nF (Sensitivity 5kΩ) / 100nF (Sensitivity 100kΩ) |
| Time Delay (t)                         | Adjustable, 0.5 - 10 sec                            |
| Time Delay after Switching On (t1)     | 1.5 sec   |
| Setting Accuracy (Mechanical)          | ± 5%  |
| Changeover Contacts                    | 1 x Changeover / SPDT (AgNi / Silver Alloy)         |
| Rated Current                          | 8A / AC1  |
| Switching Capacity                     | 2000VA / AC1, 240W / DC                             |

\* Max. cable length is limited by the capacitance of the cable.

## Montec-Level Technical Specification

|                                    |   |
|------------------------------------|---|
| Switching Voltage                  | 250Vac / 24Vdc  |
| Mechanical Life                    | 5,000,000 Cycles  |
| Electrical Life (AC1)              | 50,000 Cycles   |
| Operating Temperature              | -20°C to +55°C  |
| Storage Temperature                | -30°C to +70°C  |
| Electrical Strength                | 2.5kV (Supply Sensors)  |
| Operating Position                 | Any   |
| Mounting                           | DIN-Rail EN 60715   |
| Protection Degree                  | IP40 from Front Panel / IP10 Terminals  |
| Overvoltage Category               | II  |
| Pollution Degree                   | 2   |
| Max. Cable Size (mm <sup>2</sup> ) | Solid Wire max. 1x 4 or 2x 2.5 /<br>Stranded Wire with Ferrule max. 1x 2.5 or 2x 1.5 (AWG 12) |
| Dimensions                         | 90 x 17.6 x 64mm  |
| Weight                             | 73g   |
| Standards                          | EN 60255-1, EN 60255-26, EN 60255-27, EN 60669-1, EN 60669-2-1                                |

## Montec-Level Function



The relay monitors levels of conductive liquids with selectable output functions: PUMP UP or PUMP DOWN. To prevent polarisation and liquid electrolysis of the liquid and undesirable oxidation of the measuring probes, the monitoring circuit uses alternating current. Measurements are taken via three measuring probes: H - upper level, D - lower level, C - common probe. When used with tank made of a conductive material, you can use the tank as probe C. For monitoring of a single level only, connect inputs H and D together and connect them to a single probe - in this case sensitivity is lowered by half (2.5kΩ - 50 kΩ). Probe C can be connected to the earth (PE) of the supply. To prevent nuisance switching of the output contacts by various factors (e.g. sediment on probes, humidity etc.) the sensitivity of the device can be set according to the conductivity of the monitored liquid (corresponding to "resistance" of the liquid) range 5kΩ to 100kΩ. To prevent nuisance switching of output contacts by liquid swirl in tanks, you can set a delay on the output switching of 0.5 - 10 s.

## Montec-Level Accessories

It is possible to use any probe (any conductive contact, however, using brass or stainless steel material is recommended).

Recommended Probes:

- Montec-LevelIP** - Stainless Steel Sensor
- Montec-LevelPC** - Stainless Steel mounted in PVC Cover

Recommended Conductors: (certified to be used in drinking water)

- Montec-Level-Cable3C** - 3 Core Cable
- Montec-Level-Cable1C** - Single Core Cable

