

# Level control

## → L2N plug-in filling/emptying function

- Relay for controlling level of conductive liquids
- Combined fill and empty functions
- Combined regulation of pumping out a well and filling a tank
- Plug in (11 pins)
- Output relay status display LED
- Sensitivity adjustable from 5 kΩ to 100 kΩ



### Specifications

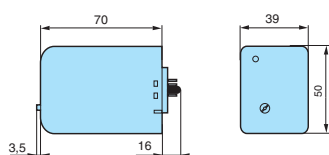
Type	Supply voltage	Base	Code
L2N	24 V AC	11-pin	84 870 401
	120 V AC	11-pin	84 870 403
	230 V AC	11-pin	84 870 404
	230 V AC	11-pin (special base)	84 870 808

### General characteristics

Supply voltage Un	230 V, 110 V, 48 V, 24 V AC, 50/60 Hz
Operating range	0.85 → 1.15 x Un
Max. absorbed power	3 VA
Adjustable sensitivity	5 kΩ → 100 kΩ
Measurement accuracy (at maximum sensitivity)	0 → +30 %
Electrode voltage (max)	24 V AC (50/60 Hz)
Electrode current (maximum)	1 mA (50/60 Hz)
Maximum cable capacity	10 nF
Response time high level	300 ms
Response time low level	500 ms
Output relay (according to AC1 resistive load)	1 AgCdO switch 8 A AC max.
Galvanic isolation via transformer (4 kV, 8 mm creepage distance)	Class II VDE 0551
Isolation of contacts and electrodes from power supply	2.5 kV AC
Temperatures limits use (°C)	-20 → +60
Temperature limits stored (°C)	-30 → +70
Weight (g)	140

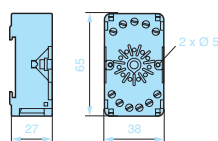
### Dimensions

L2N



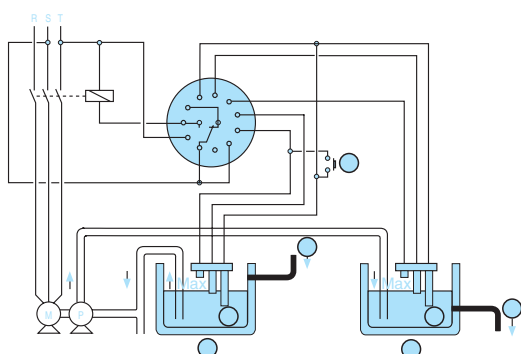
L2N

Connector sockets  
11-pin: 25 622 078  
8-pin : 25 622 129



### Connections

L2N

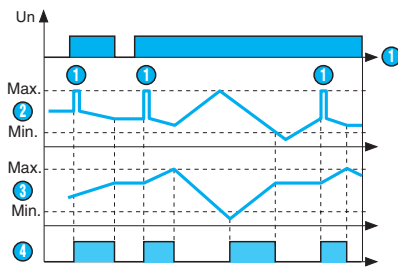


- ① Push button
- ② Output
- ③ Tank
- ④ Input
- ⑤ Common
- ⑥ Wells

To order, see page 6

## Principles

### Emptying control



- ① Push button
- ② Well
- ③ Tank
- ④ Output relay

#### Operating principle

Control of maximum and/or minimum levels of conductive liquids (tap water, sea water, waste water, chemical solutions, coffee etc).

The principle is based on measurement of the apparent resistance of the liquid between two submerged probes. When this value is lower than the preset threshold on the unit front face, the output relay changes state. To avoid electrolytic phenomena, an AC current flows across the probes. Applications found in environmental, chemical industries and food technology etc.

#### Combined Fill / Empty function

The output relay changes state when the level of liquid in the tank reaches the "max" electrode, with the "min" electrode submerged. It returns to its initial state when the "min" sensor is no longer in contact with the liquid.

When the level of liquid in the well reaches the "min" electrode, the pump stops.

If, on power-up or after a power break, the "max" electrode in the tank is above the surface, reset the device by pressing the PB pushbutton.

#### Note

The probe wire (maximum 100 metres) does not have to be screened, but avoid mounting it in parallel with the power supply wires. A screened wire can be used, with the screening connected to the common.