# Level Controller LC20

- **Operates with conductive or non-conductive liquids**
- **Contact or resistive input**
- **Rail mounting**
- **Optional threshold adjustment**
- **Controls level between 2 electrodes with 1 relay output**
- **Tank supply or drainage control**
- **State indication**
- **Low cost**


LC20 is a low-cost electronic level controller/indicator for rail mounting. Through its relay output, this device directly controls electrical pumps, valves, etc. and may be used either for tank emptying (drainage) or tank filling (supply). Two versions are available employing different methods for level measurement:
- LC20 with resistive input., i.e. measuring electrical conductivity of the liquid between electrodes or between electrode and metal tank body, applicable for liquids with relatively high conductivity that are normally used in chemical, paper, food, wine, biotechnological industries, etc;
- LC20 with contact input, accepting signals from contact level switches (float, optical, etc.), applicable for various non-conductive liquids or cases of heavy condensation, vaporization, or foaming, such as in heating and water supply installations, etc.

An optional output activation threshold adjustment via potentiometer on the front panel provides better adaptation to liquids with different conductivity for both versions.

## Technical specifications

| Input | |
|---|---|
| ***Contact*** [1] | passive electrical contact |
| ***- ON resistance*** | ≤ 50 Ω |
| ***- OFF resistance*** | ≥ 500 kΩ |
| ***Resistive*** [2] | conductivite electrodes |
| ***- activation threshold*** [3] | ≤ 50 kΩ |
| ***- release threshold*** [4] | ≥ 1…10 MΩ |
| ***- probe voltage*** | 18 VAC |
| ***Input type*** | as requested |
| ***Threshold adjustment (option)*** | via front-panel potentiometer, 10...50 kΩ |
| **Output** | |
| ***Relay electromechanical*** | 5A/250V w/ NO/NC contact |
| ***Solid state relay*** [1] | 1A/250VAC |
| ***MOS gate*** [1] | 0.1A/60V, optically isolated |
| ***Output for external SSR*** | 5…24 V, 30 mA |
| ***Control algorithm*** | ON/OFF |
| **Indication** | |
| ***LED*** | LED for output state |

| Power supply | |
|---|---|
| ***Mains supply voltage*** | 230 VAC or 115 VAC |
| ***SMPS voltage*** [1] | 90…250 V |
| ***Isolated low voltage*** | 12…24 V [1] or 24 VAC |
| ***Consumption*** | max. 2 VA |
| **Operating conditions** | |
| ***Ambient temperature*** | -10...65 °C |
| ***Ambient humidity*** | 0...85 %RH |
| ***Storage temperature*** | -20...65 °C |
| ***Storage humidity*** | non-condensing, 0...95 %RH |
| **Design and materials** | |
| ***Case material*** | plastic |
| ***Mounting*** | on 35 mm DIN rail |
| ***Wiring*** | screw terminals |
| ***Dimensions*** | 45x78x124 mm |
| ***Weight*** | max. 400 g |
| ***Protection, front/terminals*** | IP40 / IP20 |

[1] Ask for availability!
[2] Measures liquid resistance between measuring electrode and reference electrode (tank body)
[3] Maximum threshold resistance of activation at reaching (exceeding) the level
[4] Minimum threshold resistance of release at falling below the level

## Ordering code LC20✶ - G1.G5.G7 - #1

| Code | Feature or option | Code values |
|---|---|---|
| ✶ | Variant | **F** - for supply control, **E** - for drainage control |
| **G1** | Power supply | **A** - 230 VAC, **B** - 115 VAC, **C** - 90…250 V [1], **Q** - 12…24 V, isolated [1], **R** - 24 VAC |
| **G5** | Relay output | **C** - relay NO/NC, **D** - SSR [1], **J** - for external SSR, **M** - isolated MOS gate [1] |
| **G7** | Input | **A** - contact (float) [1], **B** - resistive (conductivity cell) |
| **#1** | Threshold adjustment | **X** - none, **A** - potentiometer for threshold adjustment |