

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⁾	conductivity 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
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Power supply

Mains supply voltage	230 VAC or 115 VAC
SMPS voltage ⁽¹⁾	90...250 VAC/DC
Isolated low voltage	12...24 VAC/DC ⁽¹⁾ or 24 VAC
Consumption	max. 2 VA

Operating conditions

Operating temperature	-10...65 °C
Operating 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