

Conductive Sensors 2-point level controller Type CL with potentiometer

CARLO GAVAZZI



- Conductive level controller
- Sensitivity adjustment from 5 kΩ to 150 kΩ
- For filling or emptying applications
- Low-voltage AC electrodes
- Easy installation with 11 pin circular plug
- Rated operational voltage:
24 VDC, 24 VAC, 115 VAC or 230 VAC
- Output 1 x 8A/250 VAC SPDT relay
- LED indication for: Output ON and Power ON



Product Description

μ-Processor based level controller for liquids with a wide sensitivity range (like sewage water, chemicals, salt water etc.).

Max./min. control of charging/discharging. The sensitivity is adjustable by means of the potentiometer.
1 x 8A SPDT relay output.

Ordering Key

CLP2EB1B230

Conductive level _____
 Plug mounting _____
 No of inputs _____
 Charge/discharge _____
 Basic with potentiometer _____
 1 relay output _____
 Relay SPDT _____
 Power supply _____

Type Selection

Mounting	Relay	Ordering no. Supply: 24 VDC	Ordering no. Supply: 24 VAC	Ordering no. Supply: 115 VAC	Ordering no. Supply: 230 VAC
11-p circular plug	SPDT	CLP2EB1B724	CLP2EB1B024	CLP2EB1B115	CLP2EB1B230

Specifications

Rated operational voltage (U_B) Pin 2 & 10	230 115 024	195 to 265 VAC, 45 to 65 Hz 98 to 132 VAC, 45 to 65 Hz 20.4 to 27.6 VAC, 45 to 65 Hz	Rated impulse withstand volt.	4 kV (1.2/50 μS) (contacts / electronics) (IEC 664)
Supply class 2	724	20.4 to 27.6 VDC	Operating frequency (f) Relay output	1 Hz
Rated insulation voltage		<2.0 kVAC (rms)	Response time OFF-ON (t _{on}) ON-OFF (t _{off})	1 s 1 s
Rated impulse withstand voltage		4 kV (1.2/50 μS) (line/neutral)	Environment Overvoltage category Degree of protection Pollution degree	III (IEC 60664) IP 20 (IEC 60529, 60947-1) 2 (IEC 60664/60664A, 60947-1)
Rated operational power AC supply DC supply		5 VA 1 W	Temperature Operating Storage	-20° to +50°C (-4° to +122°F) -40° to +85°C (-40° to +185°F)
Delay on operate (t_v)		< 2 s	Housing material	NORYL PPO, light grey
Outputs Rated insulation voltage		250 VAC (rms) (cont./elec.)	Screw type	M3
Relay Rating (AgCdO) Resistive loads	AC1 DC1	μ (micro gap) 8 A / 250 VAC (2500 VA) 1 A / 250 VDC (250 W) or 10 A / 25 VDC (250 W)	Tightening torque min/max	0.4Nm/0.8Nm
Small induc. Loads	AC15 DC13	0,4 A / 250 VAC 0,4 A / 30 VDC	Weight AC supply DC supply	180 g 70 g
Mechanical life (typical)		≥ 30 x 10 ⁶ operations @ 18'000 imp/h	Approvals UL CSA	cURus UL508, CSA C22.2 CSA C22.2
Electrical life (typical)	AC1	> 250'000 operations	CE marking	Yes
Level probe supply		Max. 5 VAC		
Level probe current		Max. 2 mA		
Sensitivity		5 kΩ to 150 kΩ, C _F * = 2.2 nF		
Dielectric voltage		>2.0 KVAC (rms) (contacts / electronics)		

*C_F = maximum Cable Capacitance

Mode of Operation

Connection cable

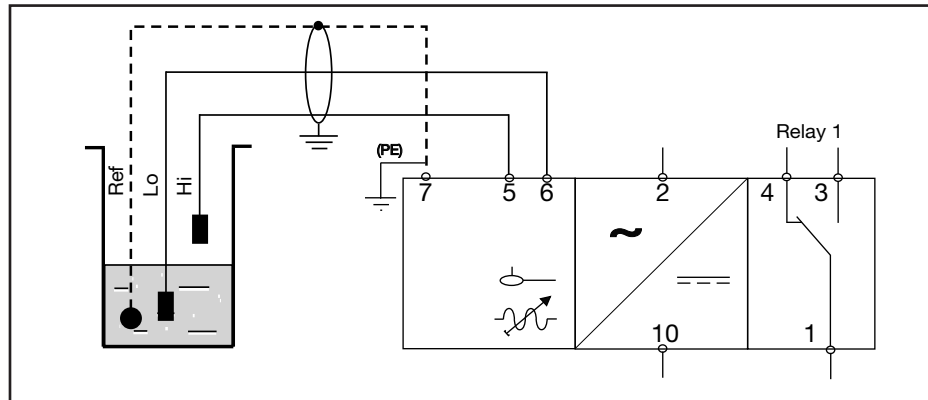
2, 3, or 4 conductor PVC cable, normally screened. Cable length: max. 100 m. The resistance between the cores and the ground must be at least 500k. Normally, it is recommended to use a screened cable between probe and controller, e.g. where the cable is placed in parallel to the load cables (mains). The screen has to be connected to the reference (Ref). The reference port (Ref) must be connected to protective Earth (PE).

current created when the electrodes are in contact with the liquid. The reference (Ref) must be connected to the container or if the container consists

of a non-conductive material, to an additional electrode. (To be connected to pin 7). (In the diagram this electrode is shown by the dotted line).

NB!

If only one level detection is required - interconnect the two inputs 5 and 6.



Example 1

The diagram shows the level control connected as max. and min. control. The relays react to the low alternating

