# Conductive Sensors 2-point level controller Type CL with potentiometer





- Conductive level controller
- Sensitivity adjustment from 5 k $\Omega$  to 150 k $\Omega$
- · 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** 

	GEI TED IDTA
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. AC Supply: 230 VAC
11-p circular plug	SPDT	CLP2EB1B724	CLP2EB1B024	CLP2EB1B115	CLP2EB1B230

## **Specifications**

Rated operational voltage 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
Supply class 2 Rated insulation voltage	724	20.4 to 27.6 VDC <2.0 kVAC (rms)
Rated impulse withstand		(2.0 KVAO (IIII3)
voltage		4 kV (1.2/50 μs) (line/neutral)
Rated operational power		
AC supply		5 VA
DC supply		1 W
Delay on operate (t <sub>v</sub> )		< 2 s
Outputs		
Rated insulation voltage		250 VAC (rms) (cont./elec.)
Relay Rating (AgCdO)		μ (micro gap)
Resistive loads	AC1	8 A / 250 VAC (2500 VA)
	DC1	1 A / 250 VDC (250 W)
		or 10 A / 25 VDC (250 W)
Small induc. Loads	AC15	0,4 A / 250 VAC
	DC13	0,4 A / 30 VDC
Mechanical life (typical)		≥ 30 x 10 <sup>6</sup> operations
		@ 18'000 imp/h
Electrical life (typical)	AC1	> 250'000 operations
Level probe supply		Max. 5 VAC
Level probe current		Max. 2 mA
Sensitivity		5 k $\Omega$ to 150 k $\Omega$ , $C_F^*$ = 2.2 nF
Dielectric voltage		>2.0 KVAC (rms)
		(contacts / electronics)

Rated impulse withstand volt.	4 kV (1.2/50 μS) (contacts / electronics) (IEC 664)	
Operating frequency (f)		
Relay output	1 Hz	
Response time		
OFF-ON (t <sub>on</sub> )	1 s	
ON-OFF (t <sub>off</sub> )	1 s	
Environment		
Overvoltage category	III (IEC 60664)	
Degree of protection	IP 20 (IEC 60529, 60947-1)	
Pollution degree	2 (IEC 60664/60664A,	
ŭ	60947-1)	
Temperature		
Operating	-20° to +50°C (-4° to + 122°F)	
Storage	-40° to +85°C (-40° to +185°F)	
Housing material	NORYL PPO, light grey	
Screw type	M3	
Tightening tourque min/max	0.4Nm/0.8Nm	
Weight		
AC supply	180 g	
DC supply	70 g	
Approvals		
ÜL cURus	UL508, CSA C22.2	
CSA	CSA C22.2	
CE marking	Yes	

<sup>\*</sup>C<sub>F</sub> = 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).

#### Example 1

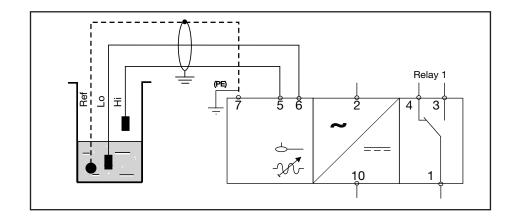
The diagram shows the level control connected as max. and min. control. The relays react to the low alternating

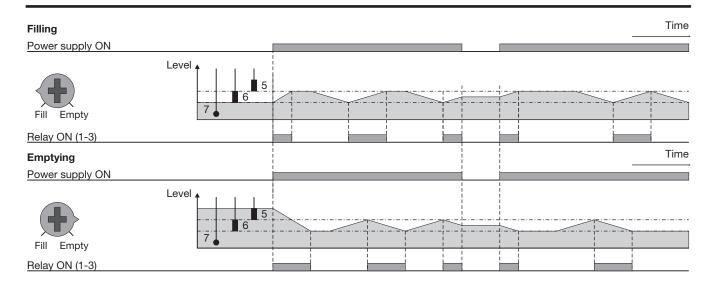
current created when the electrodes are in contact with the liquid.

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!

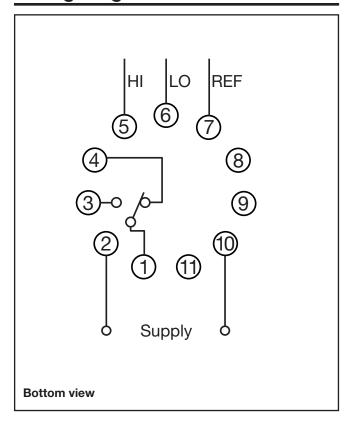
If only one level detection is required - interconnect the two inputs 5 and 6.



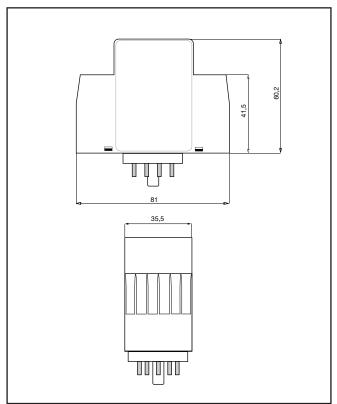




# **Wiring Diagram**



# **Dimension Drawings**



## **Accessories**

- 11 pole circular socket
- Retaining spring

ZPD11 HF

# **Delivery Contents**

- Amplifier
- Packaging: Carton box
- Manual

# **Mouser Electronics**

**Authorized Distributor** 

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

## Carlo Gavazzi:

CLP2EB1B724 CLP2EB1B230 CLP2EB1B024 CLP2EB1B115