

## Datablad fukt-sensor type VVA 3 med alarmrelè type CLD2EB1BU24



### Fukt sensor VVA 3

#### VVA 3

25 x 200 mm festes med skrue eller tape, 2 m kabel. Sensorens funksjon er basert på faldende motstand, som skyldes fuktighet som legger seg på føleren/sensorelementet. Tørrsensorens motstandsverdi er ca. 300 kΩ. Med visse kontrollsystemer er det mulig at bruke disse uten relèer.

**CLD2EB1BU24 2-point level controller Type CL with potentiometer**



## Product Description

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

- Conductive level controller
  - Sensitivity adjustment from 250 Ω to 500 KΩ
  - For filling or emptying applications
  - Low-voltage AC electrodes
  - Easy installation on DIN rails
  - Rated operational voltage:  
24 to 240 VAC/DC
  - Output 1 x 8 A / 250 VAC SPDT relay
  - LED indication for: Output ON and Power ON

## Type Selection

Mounting	Relay	Ordering no. Supply: 24-240 VAC/DC
DIN-rail	SPDT	CLD2EB1BU24

## Specifications

<b>Rated operational voltage (U<sub>B</sub>)</b>		
Pin 2 & 10	20 to 265 VAC/DC, 45 to 65 Hz	
Rated insulation voltage	<2.0 kVAC (rms)	
Rated impulse withstand voltage	4 kV (1.2/50 µs) (line/neutral)	
<b>Rated operational power</b>		
230 VAC/DC supply	2 W	
24 VAC/DC supply	1 W	
<b>Delay on operate (t<sub>v</sub>)</b>	< 2 s	
<b>Outputs</b>		
Rated insulation voltage	250 VAC (rms) (cont./elec.)	
<b>Relay Rating (AgCdO)</b>		
Resistive loads	AC1	µ (micro gap)
	DC1	8 A / 250 VAC (2500 VA)
		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
<b>Level probe supply</b>	Max. 5 VAC	
<b>Level probe current</b>	Max. 2 mA	
<b>Sensitivity</b>	250Ω to 500KΩ Factory settings standard range "S" 100KΩ	
Ranges L (Low sensitivity)	250 Ω to 5 KΩ, C <sub>F</sub> * = 4.7 nF	
Ranges S (Standard sensitivity)	5 KΩ to 100 KΩ, C <sub>F</sub> * = 2.2 nF	
Ranges H (High sensitivity)	50 KΩ to 500 KΩ, C <sub>F</sub> * = 1.0 nF	
<b>Dielectric voltage</b>	>2.0 KVAC (rms) (contacts / electronics)	
<b>Rated impulse withstand volt.</b>	4 kV (1.2/50 µs) (contacts / electronics) (IEC 664)	
<b>Operating frequency (f)</b>		
Relay output	1 Hz	
<b>Response time</b>		
OFF-ON (t <sub>on</sub> )	1 s	
ON-OFF (t <sub>off</sub> )	1 s	
<b>Environment</b>		
Overvoltage category	III (IEC 60664)	
Degree of protection	IP 20 (IEC 60529, 60947-1)	
Pollution degree	2 (IEC 60664/60664A, 60947-1)	
<b>Temperature</b>		
Operating	-20° to +50°C (-4° to +122°F)	
Storage	-40° to +85°C (-40° to +185°F)	
<b>Housing material</b>	PA66, light grey	
<b>Weight</b>		
AC/DC supply	125 g	
<b>UL Approvals</b>	cULus	UL508
<b>CE marking</b>	Yes	

\* $C_F$  = 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 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

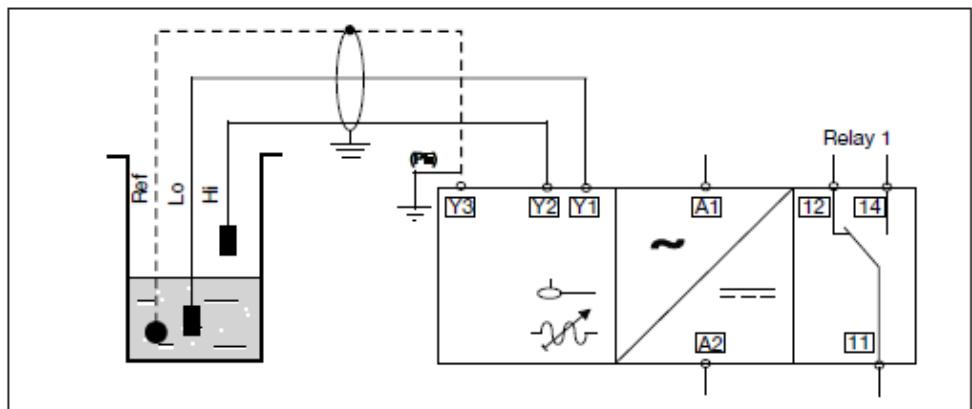
electrodes are in contact with the liquid.

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 Y3). (In the diagram this electrode is shown by the dotted line).

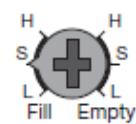
### NB!

If only one level detection is required - interconnect the two inputs Y1 and Y2.



### Filling

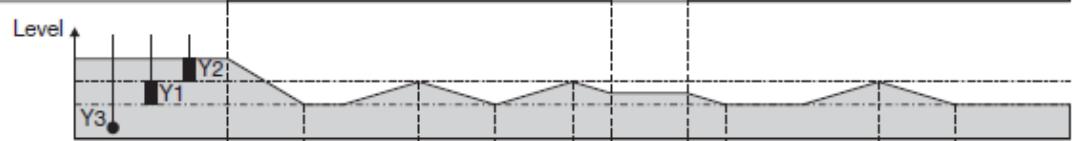
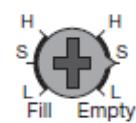
Power supply ON



Relay ON [11-14]

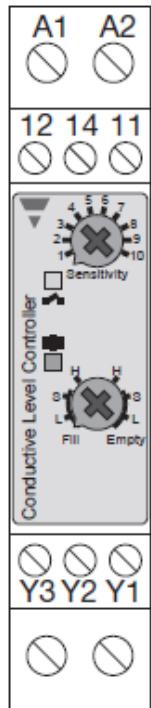
### Emptying

Power supply ON



Relay ON [11-14]

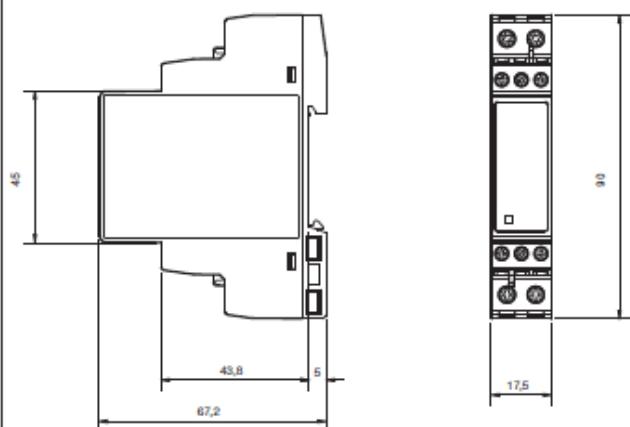
## Wiring Diagram



Klemme 12 og  
14 tilkoples til  
I/O-inngang  
på RTU etc.

Sensoren  
kobles til  
klemme Y3 og  
Y1. Det må  
legges en lask  
mellan Y2 og  
Y1, se  
nedenfor:

## Dimension Drawings



## Delivery Contents

- Amplifier
- Packaging: Carton box
- Manual

