

### GENERAL CHARACTERISTICS

This control unit with double measuring channels was designed as **low cost interface for conductive level probes** and is used to control liquids that have a minimum electrical conductivity of 8  $\mu$ S.

The system is based on measurement of the conductivity of the liquid to be controlled and works with low potential and with alternating currents, in order to avoid the incrustation of the electrodes and / or perforation of the tank normally caused by the use of direct currents, which cause a galvanic action on materials.

The contact of the electrode with the liquid under control determines the actuation of a relay inside the control unit. The presence of two measurement channels simultaneously allows to realize systems of control, metering, and safety.

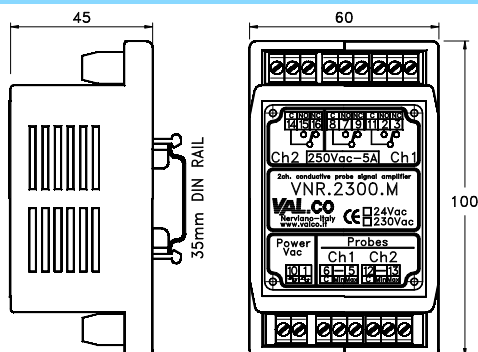
- Adjustable sensitivity and delay.
- Microprocessor technology
- 2 measuring channels
- DIN rail mounting

### TECHNICAL DATA

Tab.1

Power supply	24 Vac 50/60 Hz	On request 230 Vac
Power consumption	10 VA	
Input signal	From conductive probes	
Power supply to probes	15 Vac	
N. 2 channels	2CH	
Output relay	Ch1 N. 2 SPDT Ch2 N. 1 SPDT	250Vac - 5A
Sensitivity	8 ÷ 250 $\mu$ S	Factory setting 60 $\mu$ S
Operation delay	0 ÷ 6 min.	Factory setting 1 min.
Adjustments	Trimmers under front plate	
Operating temperature	-20° ÷ +50° C	
Housing	ABS IP40	60 x 100 x 45 mm.
Mounting	DIN rail	
Electrical connection	17 poles terminal board	

### DIMENSIONS



### CONTROL AND ADJUSTMENT

#### Control:

- Disconnect the electrodes leads from the terminal board (Ch1 - terminals 5 and 6 ) (Ch2 - terminals 12 and 13 ).
- Short circuit terminals 5 and 6 of the terminal board, in these conditions, the Ch1 relays must switch on.
- Short circuit terminals 12 and 13 of the terminal board, in these conditions, the Ch2 relays must switch on.

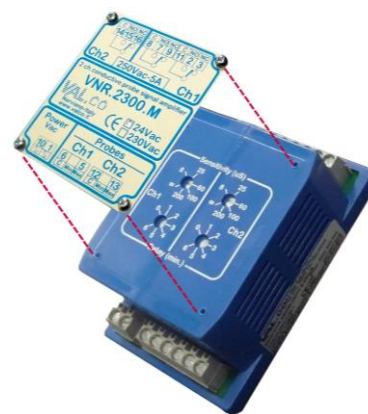
#### Sensitivity and delay adjustment:

- The unit is supplied with a factory setting of 60  $\mu$ S.
- Submerge the electrodes in the liquid under control, turn the trimmer (Sensitivity) under the front plate to obtain the switching of the relays.
- The operation delay can be adjusted with the trimmer (Delay) also located under the front plate.

### NOMENCLATURE

VNR.2300M	2CH	8 – 250 $\mu$ S	24 VAC
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Tab.1	Type
Tab.1	Number of channels
Tab.1	Sensitivity
Tab.1	Power supply



### TERMINAL

### FUNCTION

10	1		Power supply 24 Vac 50/60 Hz	
6	CH1	12	CH2	Tank ground / ground electrode
-		-		Minimum level electrode
5		13		Maximum level electrode
2		NO	Ch1	N. 2 SPDT  Simultaneous action
3		NC		
11		COM		
7		NO	Ch1	
9		NC		
8		COM		
15		NO	Ch2	N. 1 SPDT Ch2
16		NC		
14		COM		

### TYPICAL WIRING

