



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 μS .

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.

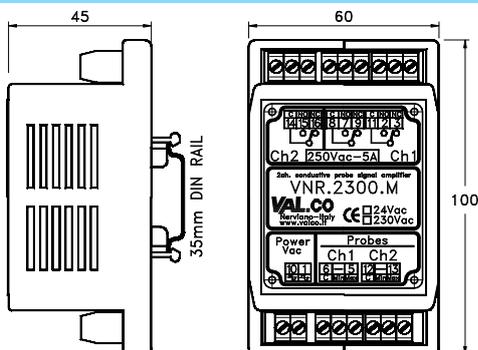
The contact of the electrode with the liquid under control determines the actuation of a relay inside the control unit. The presence of two measurement channels simultaneously allows to realize systems of control, metering, and safety.

- 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 | Ch1 | N. 2 SPDT | 250Vac - 5A |
| Output relay | | Ch2 | N. 1 SPDT | |
| Sensitivity | 8 ÷ 250 μS | Factory setting 60 μS | | |
| 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.

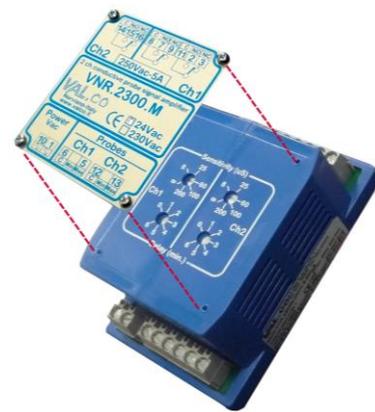
Sensitivity and delay adjustment:

- The unit is supplied with a factory setting of 60 μS .
- 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 μS | 24 VAC |
|-----------|-----|-----------------------|--------|
| • | | | |
| | • | | |
| | | • | |
| | | | • |

| | |
|-------|--------------------|
| | Type |
| Tab.1 | Number of channels |
| Tab.1 | Sensitivity |
| Tab.1 | Power supply |



TERMINAL FUNCTION

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

TYPICAL WIRING

