

RAL04

Technical data

RAL04

825B011B

Resistive level switch with 4 threshold

Power supply:	24, 115, 230 Vac
Consumption:	3 VA max.
Storage temperature:	-30÷+80 °C
Working temperature:	-20÷+70 °C
Thresholds:	4
Electrodes voltage:	max 10Vac
Electrodes current:	max 3,3mA
Range:	0 ÷ 50kohm
Measure range:	3,3kohm ÷ 50kohm
Calibration:	trimmer independent for each threshold
Sensibility:	20microS ÷ 300microS
Alarms:	max o min jumpers settable
Outputs:	4 SPDT contact (3A 250Vac)
Display:	power supply: green LED ON relay on: red LED ON
Protection:	IP00
Esecuzione:	barra DIN

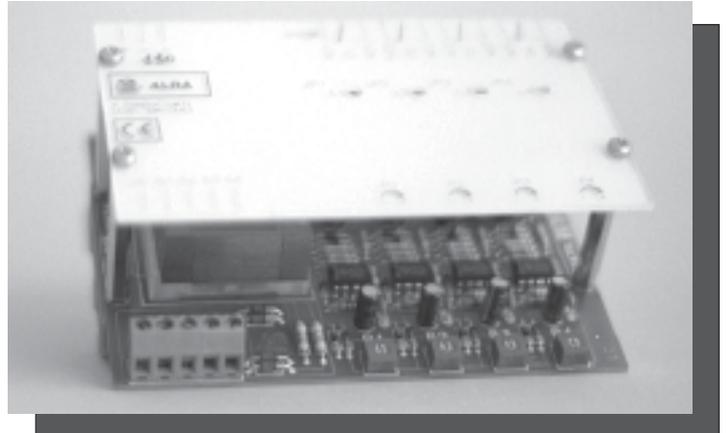


fig.1



RAL04 Application

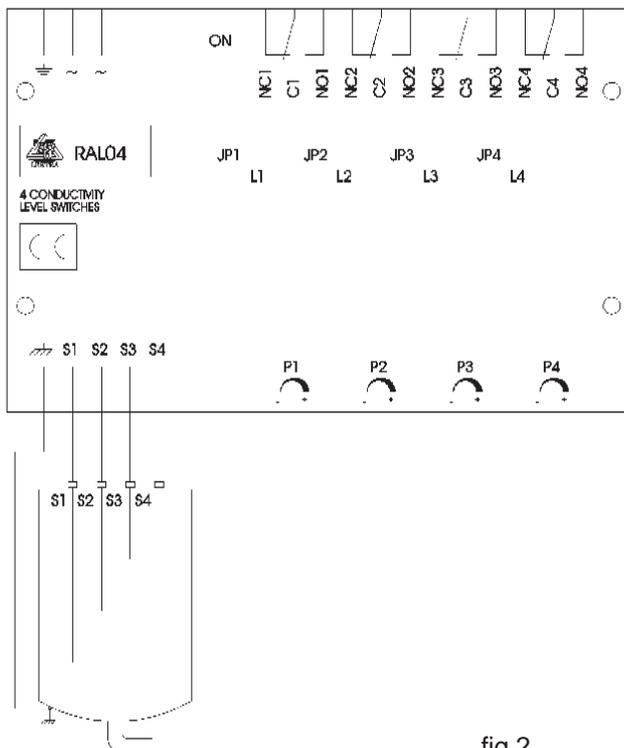


fig.2

RAL04 General

RAL04 unit to monitor the presence or absence of the liquid under control. RAL04 unit works by the conductivity principle, consequently, the medium must be conductive. Normally RAL04 unit detects the conductivity between one of the electrodes and the metallic tank wall. When the electrode come in contact with the conductive medium, a small current flow and RAL04 unit detects the medium presence. 4-off are the max electrodes number connectable. Every electrodes (point) can be configured as Min or Max by means the relevant bridges on the board.

The differences are the following:

- **Max:** The relay energized with dry electrode, de-energized when the medium is in contact with the electrode;
- **Min:** The relay de-energized with dry electrode, energized when the medium is in contact with the electrode.

The unit works with a small alternate current on the electrodes in order to avoid electrolisis and corrosion on the electrodes and tank.

If non-metallic tank is used an extra reference electrode must be installed.

RAL04 Electrical connections

The electrical diagram is showed in fig.3
Suggested cable size: 0,5 mm².
Max connection length: 250 m.

The electrode connection cable have to be considered as signal cable, consequently need to be separate from power cables.

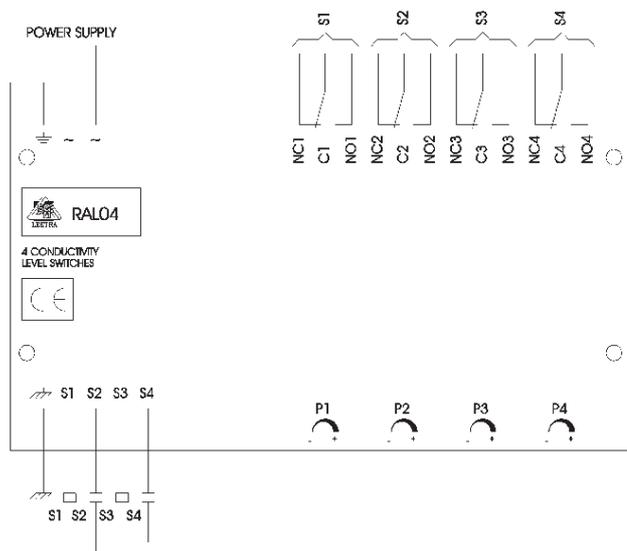


fig.3

RAL04 Set-point calibration

Normally the unit doesn't required any calibration.
The calibration :

- turn the trimmer (LIV.1 - .3) at minimum ;
- fill-up until the liquid have a contact with the electrode for 5 - 10mm than turn the trimmer clock-wise until relay switch;
- in order to have a further safety margin, turn again the trim clock-wise for 15% about of the total trimmer rotation.

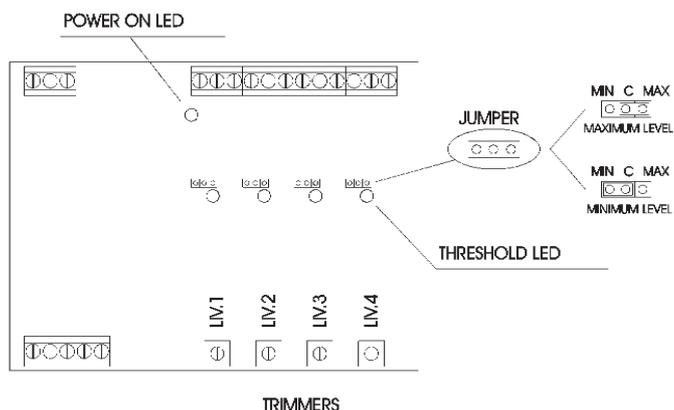


fig.4

RAL04 Warranty

The warranty expires when damages they have provoked from the use not quite or from not correct installations. The warranty is valid for a period of 12 months from the acquisition behind presentation of the manual present of installation. All the reparations in warranty will have realised beside our establishment in Rodano (MI), the costs of dismounting and reinstalling of the device and the costs of transport will be paid by the customer.

RAL04 Factory test certificate

In conformity to the production and check procedures I certify the equipment:

RAL04 serial n.

satisfy technical characteristics as write in TECHNICAL DATA
and it is conform to the internal procedures
Quality control Manager

Date of manufacture:



RAL04 Mechanics

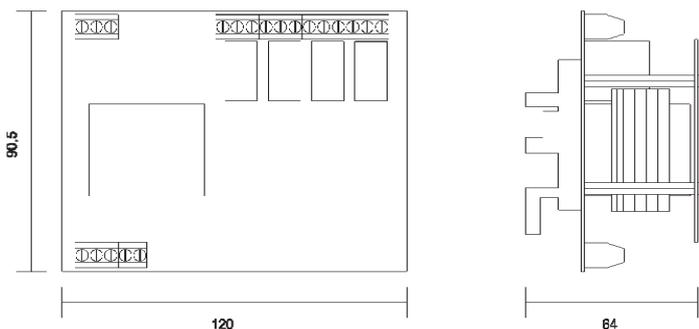


fig.5



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