RAL13
Technical data

RAL13
Conductivity level switch

825B023F

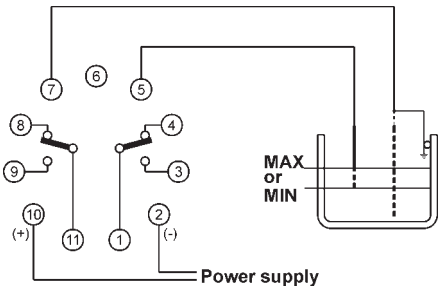
Power supply:	**24 Vdc 24Vac 115Vac 230Vac**
Power consumption:	**3 VA max.**
Electrode voltage:	**10 Vdc max**
Sensibility:	**0 ÷ 47kohm**
Adjustment range:	**470kohm ÷ 47kohm**
Adjustment range (S):	**21microS ÷ 2100microS**
Storage temperature:	**-30 ÷ +80 °C**
Working temperature:	**-10 ÷ +50 °C**
Output:	**2 change-over contacts**
Contact rating:	**3A 250Vac (resistive load)**
Sensibility adjustment:	**trimmer**
Display:	**green led = supply**
	red led = level threshold

fig.1

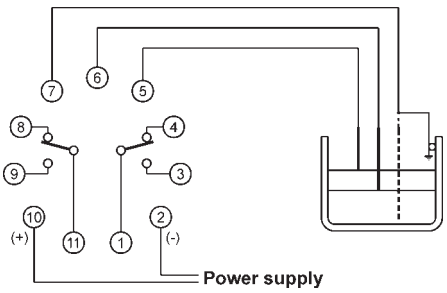
RAL13 General

RAL13 unit is a conductivity level control able to work with one or two control points.
RAL13 works detecting the current flowing between the electrodes, due to the conductivity of the liquid under control.

RAL13 Application



Single control point
fig.2



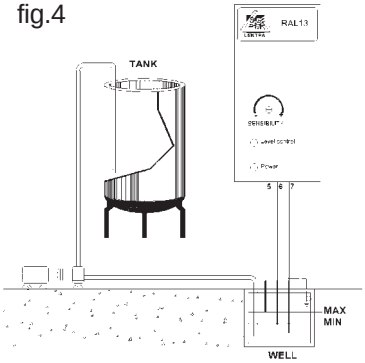
Double control point
fig.3

The RAL13 unit can work with a single control point (2 electrodes) or with two control points (3 electrodes).
When RAL13 is used with a single control point it operates as a minimum or maximum switch-point.
When RAL13 is used with a double control point it can drive directly a pump in the way to maintain the level between the two control points.

RAL13 Application

To works properly as a single control point need two electrodes, if the tank is metallic, one electrode can be substituted from the tank wall as a reference electrode consequently, for a double control point need three electrodes, but using the metallic wall of the tank as a reference electrodes, only two electrodes are requested. The electrode must installed in a vertical position.

fig.4



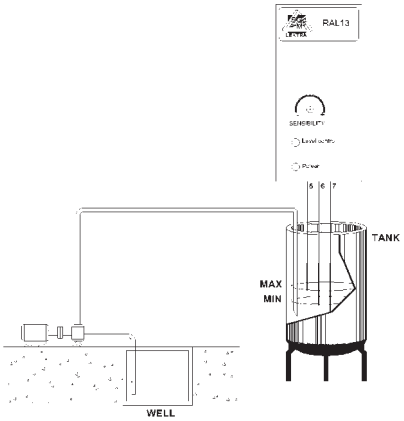
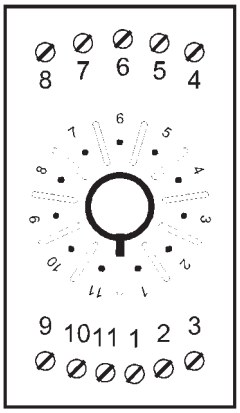


fig.5

SGM LEKTRA

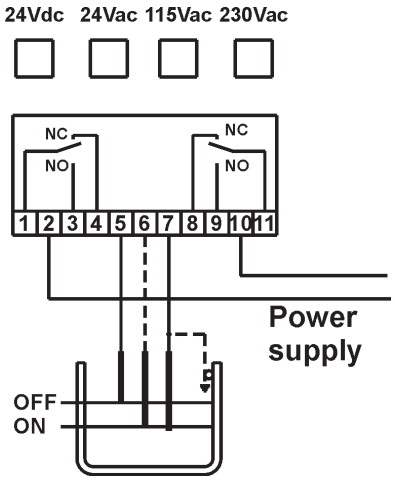
applied solutions for the applications

RAL13 Electrical connections



The electrical connection is made with the undecal socket. The socket is designed to be fixed in the din-rail. The suggested wires are from 0,5 to 1mm^2.

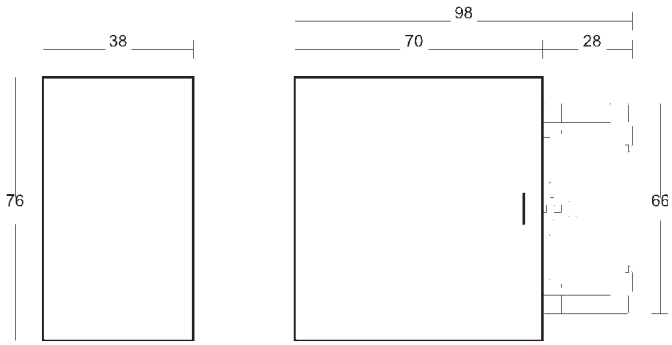
ATTENTION! Look to the lateral label the RAL13 main supply voltage.



RAL13 Warranty

Products supplied by SGM LEKTRA are guaranteed for a period of 12 (twelve) months from delivery date according to the conditions specified in our sale conditions document. SGM LEKTRA can choose to repair or replace the Product. If the Product is repaired it will mantein the original term of guarantee, whereas if the Product is replaced it will have 12 (twelve) months of guarantee. The warranty will be null if the Client modifies, repair or uses the Products for other purposes than the normal conditions foreseen by instructions or Contract. In no circumstances shall SGM LEKTRA be liable for direct, indirect or consequiential or other loss or damage whether caused by negligence on the part of the company or its employees or otherwise howsoever arising out of defective goods.

RAL13 Mechanical installation

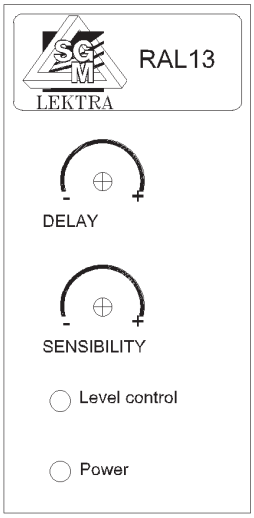


RAL13 Calibration

Single control point:
If the liquid is below to the MIN or MAX electrode (see fig.2) the output relay is energized and the red led lighted when the liquid reaches the MIN or MAX electrode the output relay will be de-energized and the red LED turns off.

Double control points
During the filling tank phase the output relay is energized (red LED lighted). When the liquid reaches the electrode of the MAX level than, relay will be de-energized (red LED off). The relay becomes again energized when the level fall down to the MIN level electrode.

Normally no sensibility adjustment is required, but if it needs, to calibrate the sensibility do the following steps:
- put the sensibility trimmer to minimum (-)
- increase the level until to reach the active electrode and turn the trimmer until the relay becomes de-energized (red LED off)



RAL13 Factory test certificate

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

RAL13 ..... serial n. .....

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

Quality control Manager .....Date of manufacture .....

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