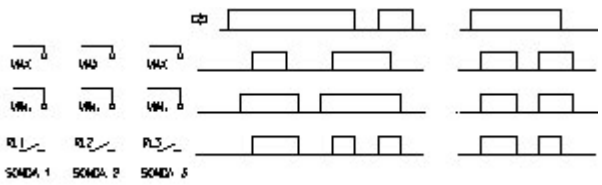
DISIBEINT

MNZA

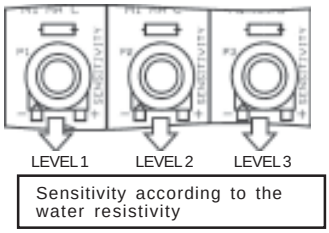
TRIPLE LEVEL CONTROL
SPDT CONTACTS

Function	Module for the control of three independent levels.
Operating principle	**Control for maximum and minimum level:** The relay operates when the liquid level reaches the electrode for maximum level (MA). It releases when goes below the electrode for minimum level (MI). **Control for maximum or minimum level:** Link the electrodes (MA) and (MI). The relay operates when the level of the liquid reaches the electrode (MA-MI) and releases when goes below it.
Sensitivity	Adjustable from 10KΩ..150 KΩ, independent for each level control.
Input	The inputs Common (C) of each level control are linked among them, being independent the input for Maximum (MA) and Minimum (MI).
Output	One relay SPDT independent for each level control.
Leds indication	Power on: Green Relay on: Red (1 for each level control)
Voltage in probes line	24 VAC
Current in probes line	10 mA (for each level control)
Timming	1,5 seconds, approx., when the relay releases.
Probes connection cables	Usually 1..2,5 mm² section cables are used, with good insulation and without shielding. In some installations (when the supply and probe lines are parallel in the same tube and with long distances) shielded cable is recommended. The resistance between cables and ground must be at least 200 KΩ. The screen is connected to ground.
Connection of the common electrode	If the tank is not conductive, one additional electrode must be fitted for connecting the common electrode C.
Probes cable length	No especification detailed.
Accessories	See next page.

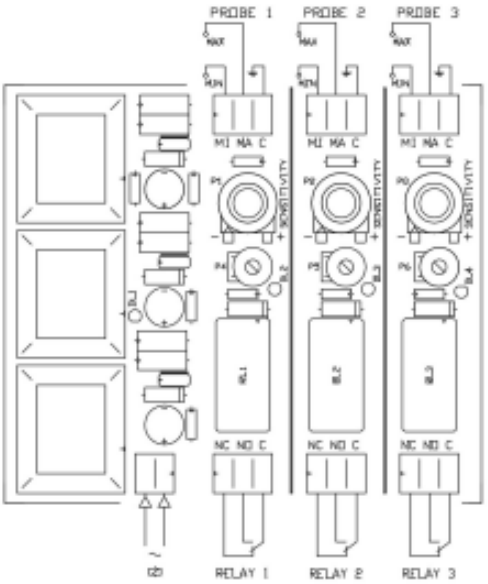
Operating diagram



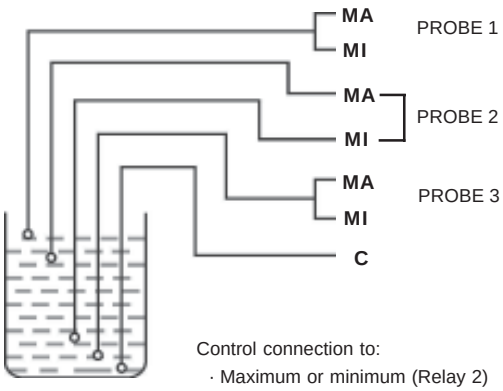
Adjustment buttons



Connection layout



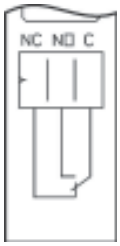
Application example



Control connection to:
- Maximum or minimum (Relay 2)
- Alarm to maximum (Relay 1)
- Alarm to minimum (Relay 3)

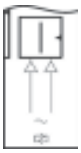
Output relays

Resistive load	AC	8 A / 250 V
	DC	0,25 A / 200 V 8 A / 24 V
Inductive load	AC	2,5 A / 250 V
	DC	4 A / 24 V
Mechanical life		> 30 x 10^6 operations
Max. switching rate, mech.		72.000 operations / hour
Electrical life at full load		360 operations / hour
Contact material		AgNi 90/10
Maximum voltage		440 VAC
Operating voltage		250 VAC
Volt. between changeovers		2500 VAC
Voltage between contacts		1000 VAC
Voltage coil/contact		5000 VAC
Distance coil/contact		10 mm
Isolation resistance		> 10^4 MΩ



Supply

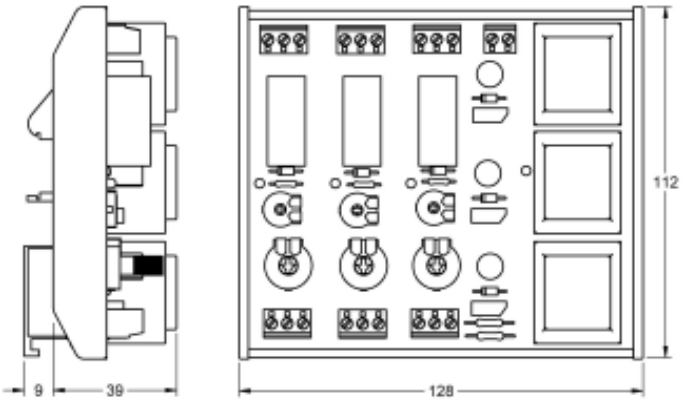
Supply voltage	[024]: 24VAC [048]: 48VAC [110]: 110..125 VAC [230]: 220..240 VAC [400]: 380..415 VAC
Galvanic isolement	Yes
Frequency	50 / 60 Hz
Operating margins	±10% -15%



Constructive and anviromental data

	MNZA
Voltage phase-neutral	300 V
Overvoltage category	III
Rated impulse voltage	4 kV
Pollution degree	3
Approximate weight	470 g
Storage temperature	-50ºC..+85ºC
Operating temperature	-20ºC..+50ºC
Humidity	30..85% HR
Socket	Polyamide PA 6.6, self-extinguishing
Pins of the terminal block	Nickel plated brass
Approvals	Designed and manufactured under EEC standards. Electromagnetic compatibility , directives 89/366/EEC and 92/31/EEC. Electric safety, directive 73/23/EEC. Plastics: UL 94 V0

Dimensions



Accessories

Conductive electrodes


NS


NB


NT


NR 1”


NRA 1”


NRX 1”


NR 1”1/2


NRA 1”1/2


NRC


NTBA INOX


NTBA PVC


NTBI


NCI


N DN 50


NP

Nuts (NR. TUE)

Separators (NR. SEP)

Overvoltage protector (PS3)

Other level control relays

PN.. DN.. SN..

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