

PNGA DNGA



DOUBLE LEVEL CONTROL



Field of application	<ul style="list-style-type: none"> · Control of two independent deposits · Control of two pumps with stop at an only level · Control of level and an alarm of maximum or minimum
Difference	It is composed by two independent level controls with a relay (contacts NA) associated to each one of them. They can work as individual or related among them (see the application examples in page 2).
Operation principle	<p>Control of maximum and minimum level: Relay 1 activates when the level of the liquid reaches the electrode of maximum level (5: PNGA - Y2: DNGA) and it is deactivated when the liquid descends below the electrode of minimum level (6: PNGA - Y1: DNGA).</p> <p>Relay 2 activates when the level of the liquid reaches the electrode of maximum level (9: PNGA - Y4: DNGA) and it is deactivated when the liquid descends below the electrode of minimum level (8: PNGA - Y3: DNGA).</p> <p>Control of maximum or minimum level: The terminals of maximum and minimum electrodes have to be united (Relay 1: 5-6: PNGA; Y1-Y2: DNGA) (Relay 2: 8-9:PNGA; Y3-Y4: DNGA). The relay activates when the liquid level reaches the electrode and it is deactivated when the liquid descends below the it.</p>
Leds indicating	Supply voltage: Green Relays activated: Red
Voltage in probes	24 VCA
Current in probes	4 mA (in short circuit).
Characteristic of the probes cable	Normally are used cables from 1..2.5 mm ² of section with a good isolation and without screening. In some installations, when the supply and the probe lines are parallel in the same tube and with long distances, it is recommendable to use shielded cable. The resistance between cables and ground must at least be of 200KΩ. The screen is connected to ground.
Connection of the common electrode	If the tank is not conductive, an additional probe must be fitted for connecting the common electrode, terminal 7(PNGA) or Z1 (DNGA).
Length of probes cable	No specification detailed.
Accessories	Electrodes: NS, NR 43650, NRA 43650, NR, NRA, NT, NRP, NP, NRT2. Separators of electrodes: NR.SEP, NRA.SEP Nuts of attachment: NR.TUE/P, NR.TUE/T Protective of surge: PS-3

Reference	HOUSING		FUNCTION		OUT PUT		VOLTAGE		RANGE	
	P	D	NG		A				100	
	Plug-in	Rail DIN	Double level		2 NA		024 24 VAC 048 48 VAC 110 110..125 VAC 230 220..240 VAC 400 380..415 VAC		100	10..100 KΩ

In order to compose the reference, to select an option of each one of the columns. Example: **PNGA 230 100**

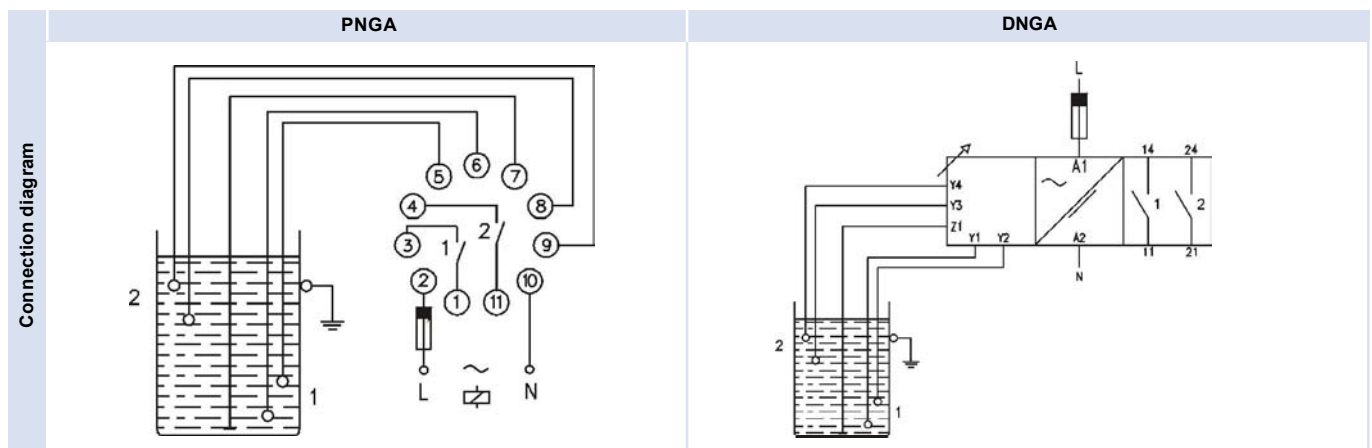
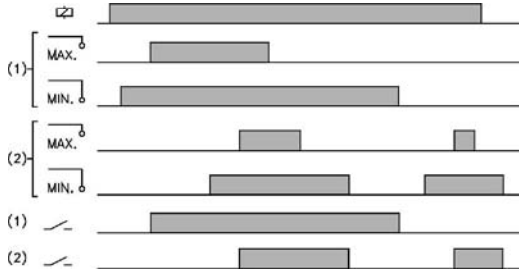
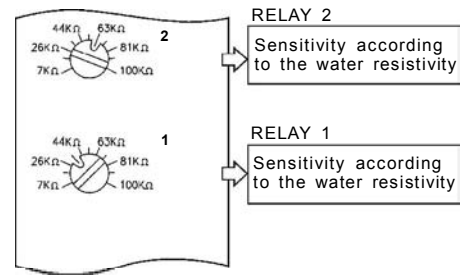


Diagram of operation

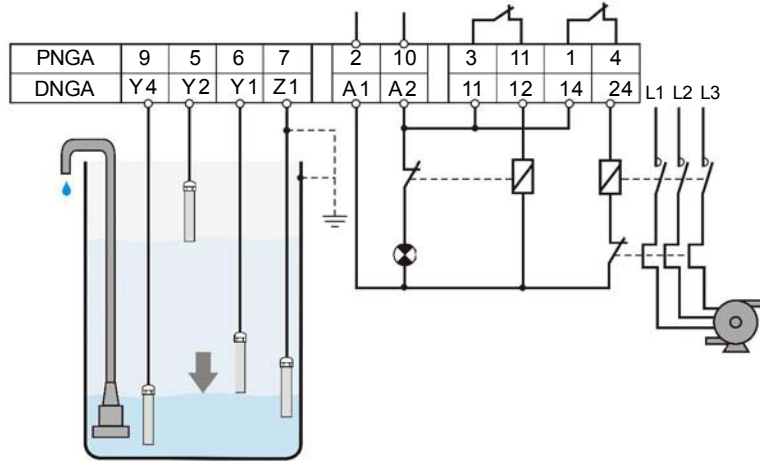


Adjustment buttons

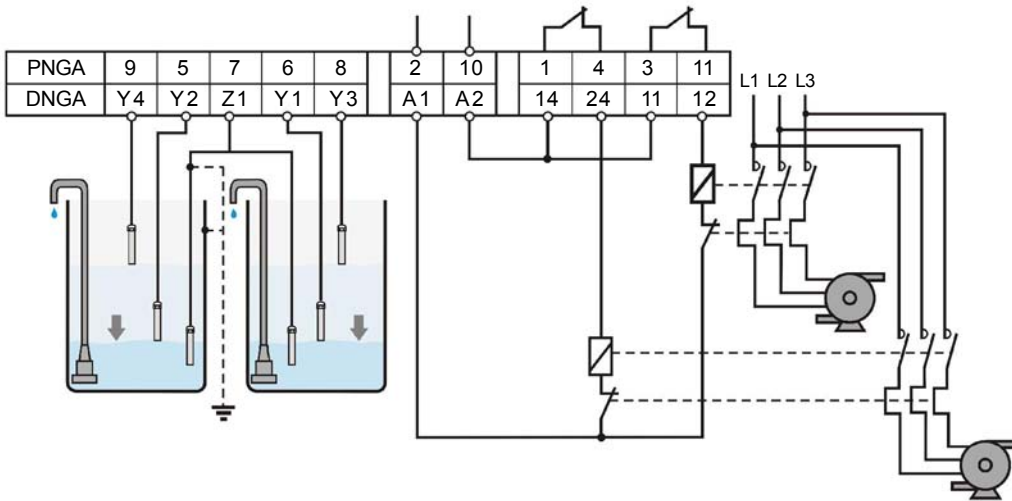


Examples of conexionado

Filling control and alarm of maximum level



Filling control of two independent tanks



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

Supply	CA	
	PNGA	DNGA
	Galvanic isolation	Yes
	Frequency	50 / 60 Hz
	Operating margins	±10..-15%
	Positive	-
	Protected polarity	-
	Consumption	3,2 VA

Constructive and environmental data	PNGA	DNGA	
	Voltage phase-neutral	300 V	300 V
	Overvoltage category	III	III
	Rated impulse voltage	4 kV	4 kV
	Pollution degree	2	3
	Protection	IP 20 B	IP 20
	Approximate weight	250 g	280 g
	Storage temperature	-50..+85°C	-50..+85°C
	Operating temperature	-20..+50°C	-20..+50°C
	Humidity	30..85% HR	30..85% HR
	Housing	Cyclopy - Light grey	Cyclopy - Light grey
	Socket	Lexan - Light grey	-
	Visor leds	Lexan - Transparent	Lexan - Transparent
	Button, terminal block, clip	Technyl - Dark blue	Technyl - Dark blue
	Pins of the socket	Nickel-plated brass	-
Pins of the terminal block	-	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 91 V0		

Dimensions	PNGA	DNGA

Rev. 03/00 · 24/07/12 · DISIBEINT reserves the right to modify the specifications stated in this document without previous notice