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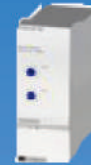
# Реле уровня для токопроводящих жидкостей серии DNGA, PNGA

 **tecfluid**

## DOUBLE LEVEL CONTROL FOR CONDUCTIVE LIQUIDS DNGA / PNGA SERIES

### Benefits

- Simple, reliable and economical
- Dual level control
- Maximum and/or minimum level control
- 2 independent NO relay outputs
- Sensitivity 10 KOhms to 100 KOhms



### Apps

- Control of two independent tanks
- Control of two pumps with stopping at a single level point
- Level control and a maximum or minimum alarm

### Functioning

Maximum and minimum level control: Relay 1 is activated when the liquid level reaches the maximum level electrode (5: PNGA - Y2: DNGA-SNGA) and deactivated when the liquid drops below the minimum level electrode (6: PNGA - Y1: DNGA-SNGA).

Maximum or minimum level control : The max and min electrode terminals must be connected (Relay 1: 5-6: PNGA; Y1-Y2: DNGA-SNGA) (Relay 2: 8-9: PNGA; Y3-Y4: DNGA-SNGA). The relay is activated when the liquid level reaches the electrode and it is deactivated when it drops below the latter.

### Technical data

LED indication: Voltage present: Green  
Relay On: Red  
Probe voltage: 24 VAC  
Probe current: 4mA (short-circuited)

### Characteristics of the probe cable

Normally cables from 1 to 2.5 mm are used. 2-section with good insulation and unshielded. In some installations, when the power line and probes are parallel in the same tube and with long distances, it is recommended to use shielded cable. The resistance between the cables and ground must be at least 10 KOhms. The braid is connected to terminal 7 (PNGA) or Z1 (DNGA-SNGA).

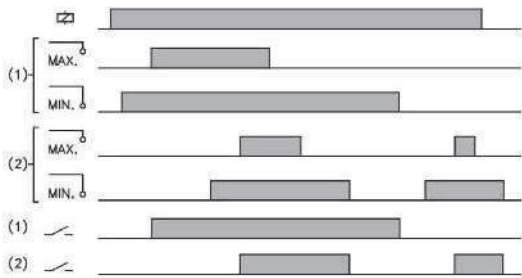
### Ground connection

If the tank is not conductive, an additional probe must be installed to connect the reference to terminal 7 (PNGA) or Z1 (DNGA-SNGA).

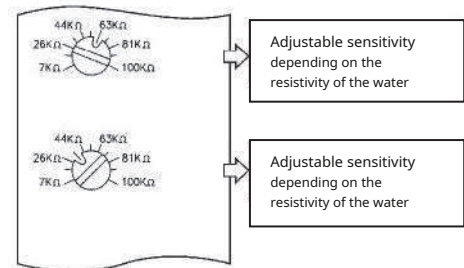
**Probes and accessories:** Electrodes: NS, NR 43650, NRA 43650, NR, NRA, NT, NRP, NP, NRT2.  
Electrode separators: NR.SEP, NRA.SEP Nut:  
NR.TUE/P, NR.TUE/T  
Surge Protector: PS-3

Housing	Function	Exit	Tension	Range
P: Plug-in D: DIN rail	Dual level	A: 2 NO	024 24VAC 048 48VAC 110 110..125VAC 230 220..240 VAC 400 380..415 VAC	100K 10KΩ..100KΩ

**Operation diagram**

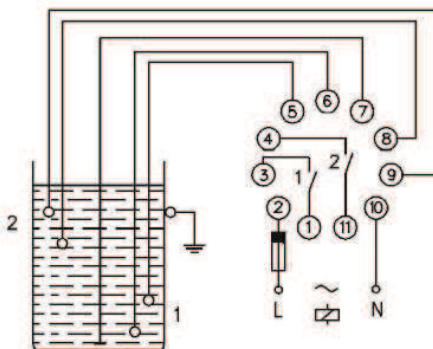


**Setting**

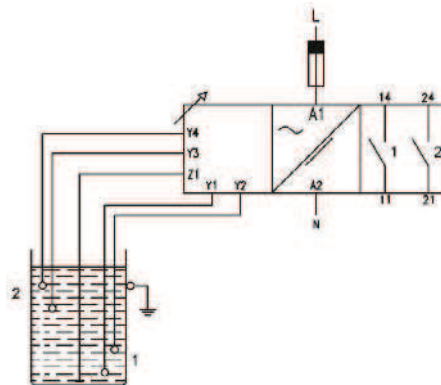


**Connection diagram**

**PNGA**




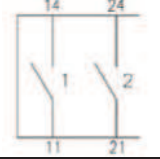
**DNGA**



**Supply voltage**

	AC	
	PNGA	DNGA
Isolation galvanic	Yes	
Consumption	3.2VA	
Frequency	50/60Hz	
Margins of work	+ /-10%...-15°C	
Positive	-	
Polarity protected	-	

## Output relay

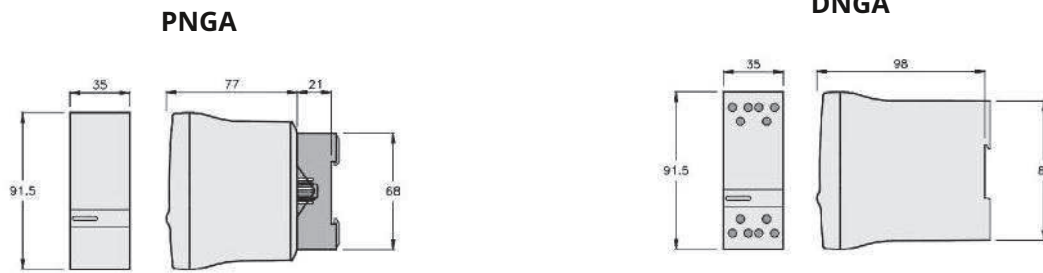
		PNGA	DNGA
			
resistive load	AC	10A / 250V	
	CC	0.4A / 200V 10A / 24V	
Inductive load	AC	5A / 250V	
	CC	5A / 24V	
Mechanical life		> 30x10 <sup>6</sup> operations	
Max. mechanical operation		72,000 operations / hour	
Electrical life at full load		360 operations / hour	
Contact material		Ag Ni 90/10	
Max voltage		440VAC	
Operating voltage		250VAC	
Voltage between inverters		2500VAC	
Voltage between contacts		1000VAC	
Coil/contact voltage		5000VAC	
Coil/contact distance		10mm	
Insulation resistance		> 10 <sup>4</sup> MΩ	

## Technical data

	PNGA	DNGA
Neutral phase voltage	300V	
Overvoltage category	III	
Impulse voltage	4kV	
pollution degree	2	3
Degree of protection	IP 20 B	IP20
Approximate weight	250g	280g
Storage temperature	- 50...+85°C	
Temp. Operating	- 20...+50°C	
Humidity	30...85% RH	
Housing	Cycloy, light gray	
Base	Lexan, light gray	-
LED viewfinder	Lexan, Clear	
Buttons, terminals and base	Technyl, dark blue	
Basic terminal blocks	Nickel-plated brass	-
Screw terminals	-	Brass

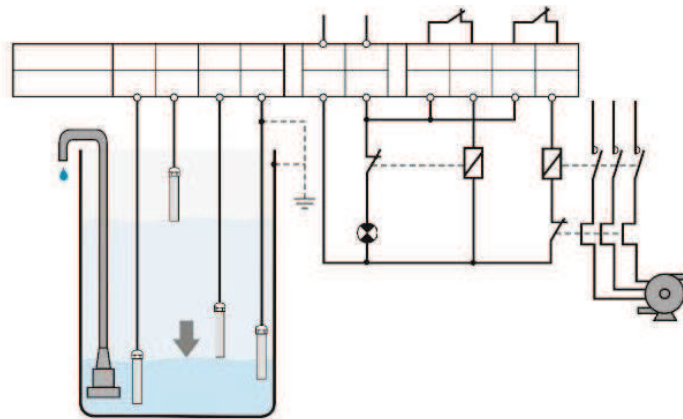
**Standards:** Designed and manufactured under EEC regulations.  
 Electromagnetic compatibility, directives 89/366/CEE and 92/31/CEE.  
 Electrical safety, directive 73/23/CEE.  
 Plastic materials: UL 91 V0

Dimensions

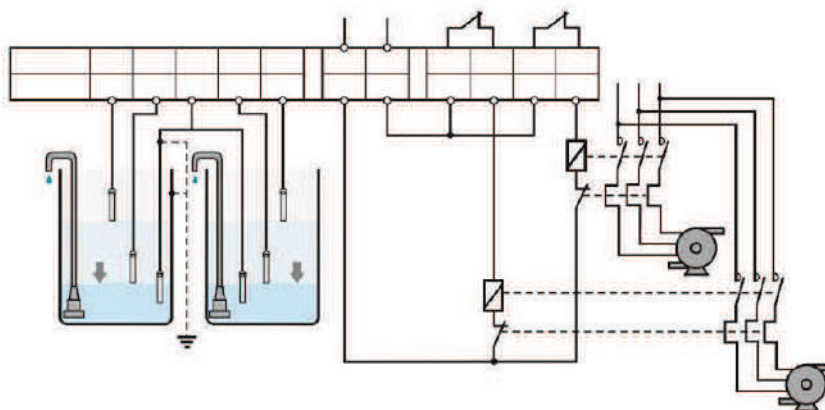


Examples of connections

Drain control and maximum level alarm



Emptying control of two independent tanks





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