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# Реле уровня для токопроводящих жидкостей серии DNHA/PNHA

 **tecfluid**

## DUAL LEVEL CONTROL FOR DNHA / PNHA SERIES CONDUCTIVE LIQUIDS

### Benefits

- Simple, reliable and economical
- Dual level control
- Two independent NF level controls
- Maximum and/or minimum level control
- 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:PNHA - Y2:DNHA-SNHA) and deactivated when the liquid drops below the minimum level electrode (6:PNHA - Y1:DNHA-SNHA).

Relay 2 is activated when the liquid level reaches the maximum level electrode (9:PNHA - Y4:DNHA-SN is deactivated when the liquid drops below the minimum level electrode (8:PNHA - Y3:DNHA -SN). Maximum or minimum level control : The terminals of the maximum and minimum electrodes must be united (Relay 1: 5 6:PNHA; Y1-Y2:DNHA-SNHA) (Relay 2: 8-9:PNHA; Y3-Y4:DNHA-SNHA). 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 1 to 2.5 mm cables are used 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 of at least 200KΩ. The braid is connected to terminal 7 (PNHA) or Z1 (DNHA-SNHA).

### Ground connection

If the tank is not conductive, an additional probe must be installed to connect the reference (ground) to terminal 7 (PNHA) or Z1 (DNHA-SNHA).

**Probes and accessories:** Electrodes: NS, NR 43650, NRA 43650, NR, NRA, NT, NRP, NP, NRT2.

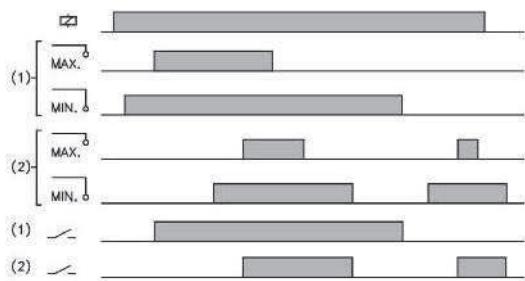
Electrode separators: NR. SEP, NRA. SEP Nut:

NR. TUE/P, NR. YOU AND

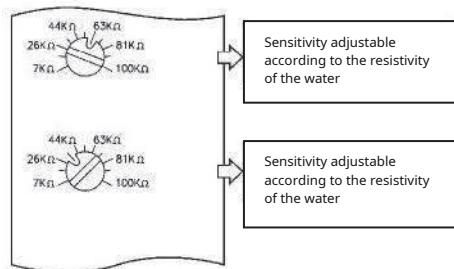
Surge Protector: PS-3

Housing	Function	Exit	Tension	Range
P: Plug-in D: DIN rail	Dual level	A: 2 NC	<b>024</b> 24VAC <b>048</b> 48VAC <b>110</b> 110..125VAC <b>230</b> 220..240 VAC <b>400</b> 380..415 VAC	100K 10KΩ..100KΩ

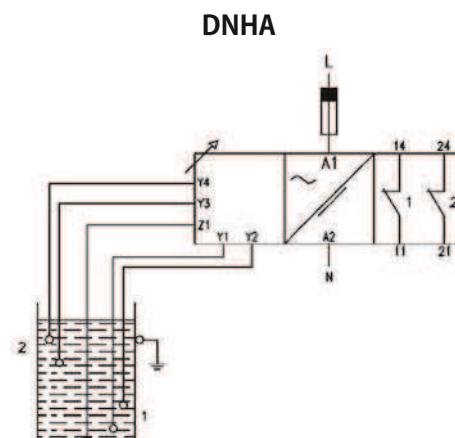
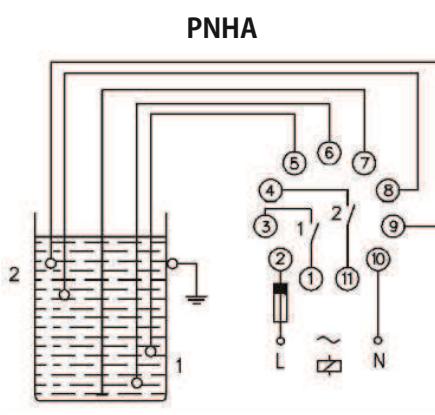
### Operation diagram



### Setting



### Connection diagram



### Supply voltage

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

## Output relay

		PNHA	DNHA
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

	PNHA	DNHA
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		Cyclooy, 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

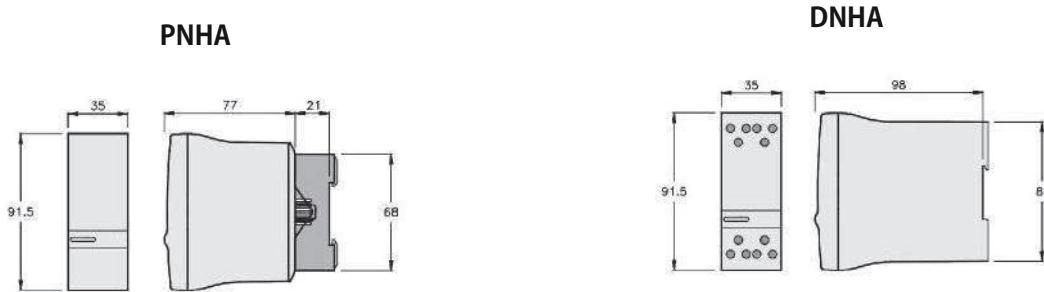
**Standards:**Designed and manufactured under EEC regulations.

Electromagnetic compatibility, directives 89/366/CEE and 92/31/CEE.

Electrical safety, directive 73/23/CEE.

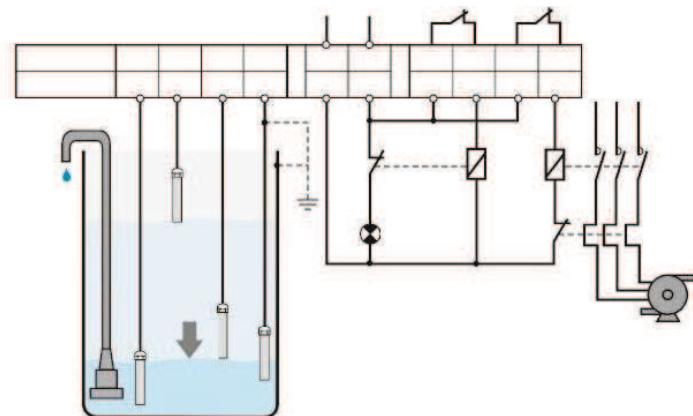
Plastic materials: UL 91 V0

## Dimensions

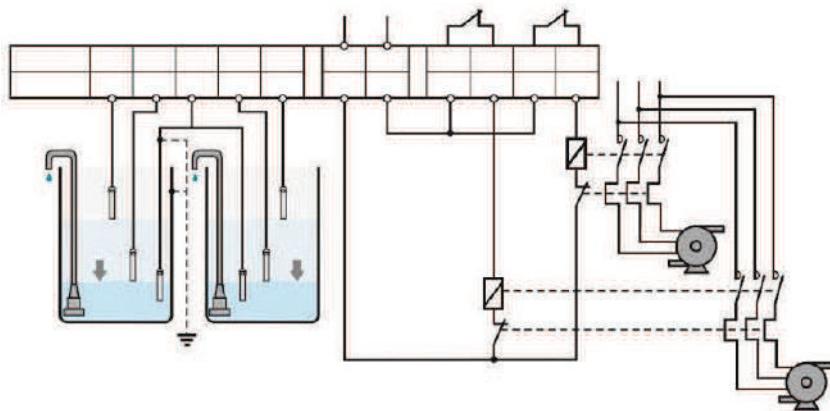


## Examples of connections

Filling control and maximum level alarm



Filling control of two independent tanks





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