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<https://tecfluid.nt-rt.ru> || [tdf@nt-rt.ru](mailto:tdf@nt-rt.ru)

# Реле уровня для проводящих жидкостей серии MNZA

 **tecfluid**

## TRIPLE LEVEL CONTROL - MNZA SERIES NONNF CONTACTS

### Benefits

- Simple, reliable and economical
- 3 independent level controls
- NO/NC contacts
- Maximum and/or minimum level control
- No housing, direct DIN rail mounting
- Sensitivity 10 KOhms to 100 KOhms



### Functioning

Max and min level control: The relay is activated when the liquid level reaches the electrode of maximum level (MA). It is disabled when it is below the minimum level electrode (MID).

Max or min level control: Connect the maximum level (MA) and minimum level (MI) electrodes. The relay is activated when the liquid reaches the electrode (MA-MI) and deactivated when it is below of the electrode (MA-MID).

### Technical data

LED indicators: Presence of voltage (green)

Relay activated (in red), independently for each level control

Sensitivity: Adjustable from 10 to 100k $\Omega$ , independently for each control level

Starters: the common inputs (C) of each level control are linked together, independently of the max and min inputs

Exits: 1 changeover relay, independently for each level control.

Probe voltage: 24 VAC, maximum voltage variation:  $\pm 15\%$  Probe current: 10 mA for each level control

Delay: approx. 1.5 seconds, on relay deactivation

**Characteristics of the probe cable:** The cables used are generally 1..2.5 mm<sup>2</sup> with good insulation and unshielded. In some installations, when the power line and probes are parallel in the same tube and long distances, we recommend using a cable shielded wheat.

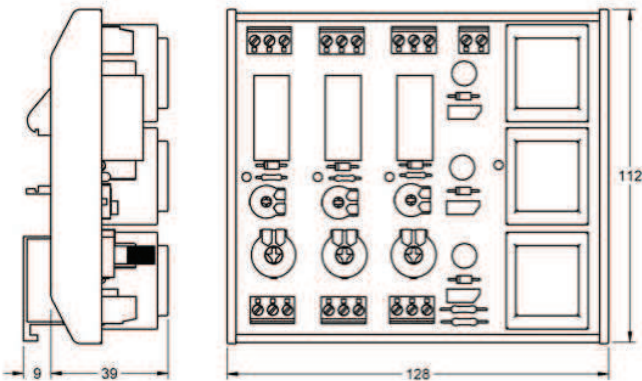
The resistance between the cables and the ground must be at least 200 k $\Omega$ . The braid is connected to the reference (ground).

**Common electrode connection:** If the tank is not conductive, an additional electrode must be installed to connect it to terminal C.

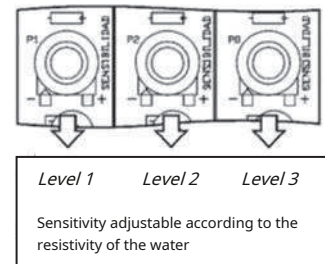
Supply voltage

	THAT		CC		CCCC	
	PNCA / PNCB	DNCA / DNCB	PNCA / PNCB	DNCA / DNCB	PNCA / PNCB	DNCA / DNCB
Isolation galvanic	Yes		No		9XX: Yes	UXX: No
Consumption	1.6VA		1.2W		1.6W	1.7W
Frequency	50/60Hz		-		-	
Margins of work	+/-10%...-15°C		+/- 10%		-	
Positive	-		Terminal 2	Terminal A1	Terminal 2	Terminal A1
Polarity protected	-		Yes		Yes	

MNZA dimensions



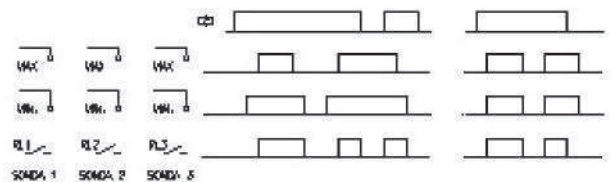
Setting



Technical data

	MNZA
Neutral phase voltage	300V
Overvoltage category	III
Impulse voltage	4kV
pollution degree	3
Approximate weight	470g
Storage temperature	- 50...+85°C
Temp. Operating	- 20...+50°C
Humidity	30...85% RH
Support base	Polyamid PA 6.6, self extinguishing
Basic terminal blocks	Nickel-plated brass

Operation diagram

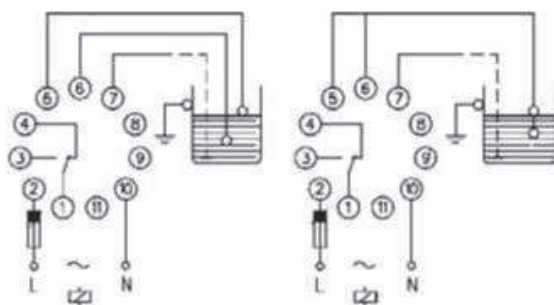


**Output relay**

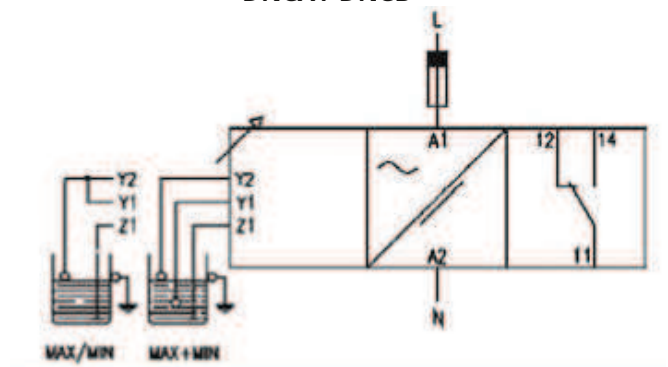
		<b>MNZA</b>
resistive load	AC	8A / 250V
	CC	0.25A / 200V 8A / 24V
Inductive load	AC	2.5A / 250V
	CC	4A / 24V
Mechanical life		> 30x10 <sup>6</sup> operations
Max. mechanical operation		72,000 operations/h
Electrical life at full load		360 operations/h
Contact material		Ag Ni 90/10
Max voltage		440VAC
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

**Connection diagram**

**PNCA / PNCB**



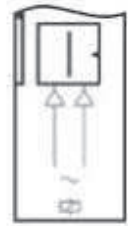
**DNCA / DNCB**



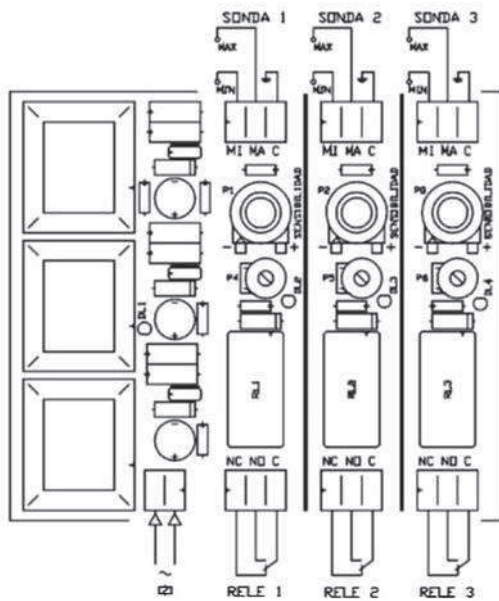
**Standards:** Designed and manufactured under EEC regulations.  
 Electromagnetic compatibility, directives 89/366/CEE and 92/31/CEE.  
 Electrical safety, directive 73/23/CEE.  
 Plastic materials: UL 91 V0

Feed	
Galvanic isolation	Yes
Frequency	50/60Hz
Work margins	±10% -15%

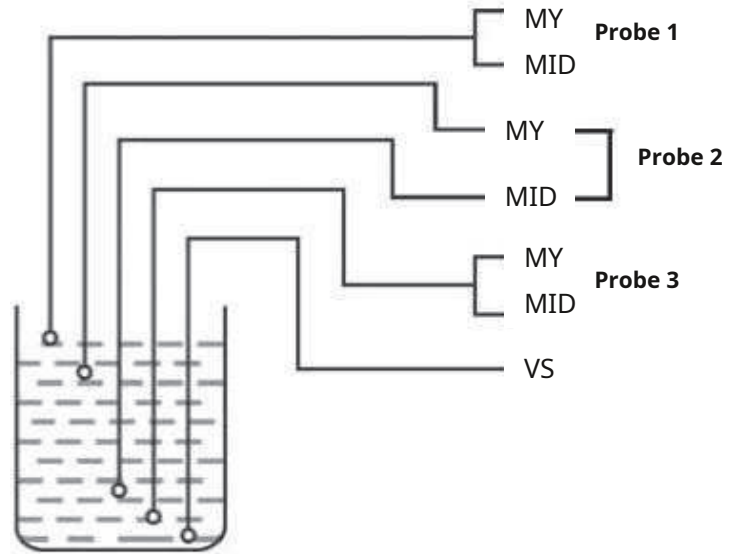
Supply voltage	
<b>024</b>	24VAC
<b>048</b>	48VAC
<b>110</b>	110..125VAC
<b>230</b>	220..240 VAC
<b>400</b>	380..415 VAC



Examples of connections



Application examples





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