

PNCA / PNCB DNCA / DNCB

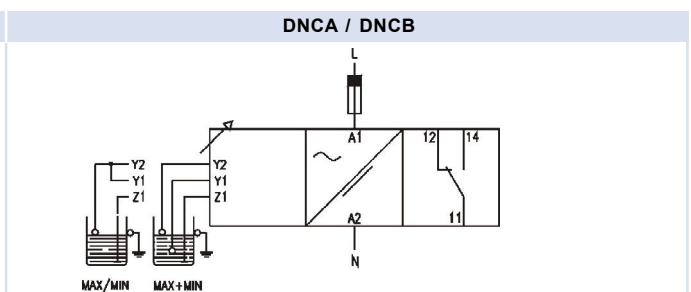
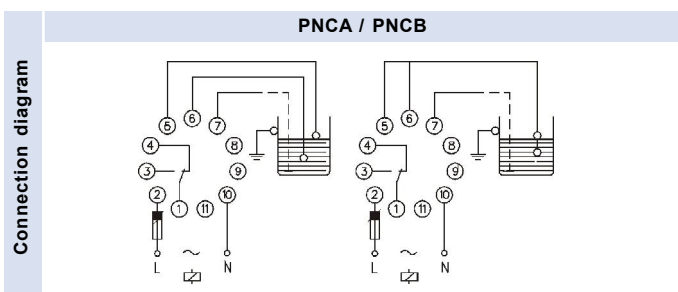
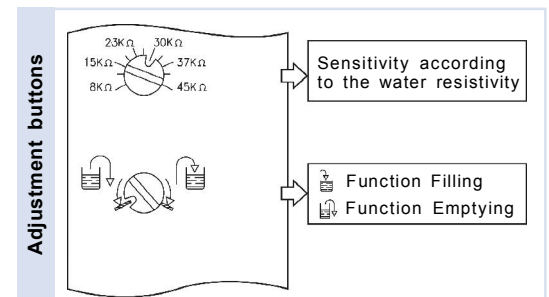


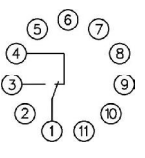
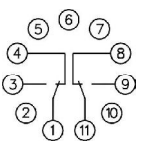
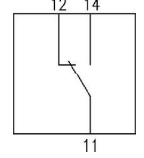
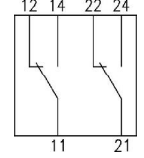
LEVEL CONTROL WITH DC SUPPLY

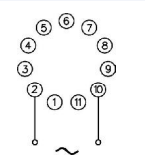
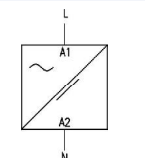
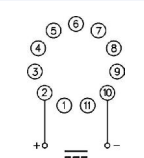
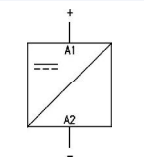
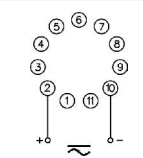
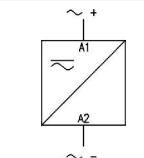
Field of application	· Suitable for DC supply voltage. Filling or emptying control.
Operating principle FILLING	Max. and Min. control. The relay operates when the liquid level is below the minimum electrode (6:PNCA/B; Y1:DNCA/B) and releases when the liquid level is above the maximum electrode (5:PNCA/B; Y2:DNCA/B). Max. or Min. control. The relay operates when the liquid level is below the electrode (5-6:PNCA/B; Y1/Y2:DNCA/B) and releases when the liquid level is above the electrode (5-6:PNCA/B; Y1/Y2:DNCA/B).
Operating principle EMPTYING	Max. and Min. control. The relay operates when the liquid reaches the maximum electrode (5:PNCA/B; Y2:DNCA/B) and releases when it goes below the minimum level electrode (6:PNCA/B; Y1:DNCA/B). Max. or Min. control. The relay operates when the liquid reaches the electrode (5-6:PNCA/B; Y1/Y2:DNCA/B) and releases when it goes below the electrode.
Leds indication	Power on: Green · Relay on: Red
Sensitivity ranges	Adjustable from 8..45KΩ
Probes line	3,2mA rms (in shortcircuit) to 6,2VCA (V _{PEAK})
Probes connection cables	Usually 1 to 2,5 mm ² 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, an additional probe must be fitted for connecting the common electrode, terminal 7(PNCA) or Z1 (DNCA/B).
Probes cable length	< 100 mts.

Reference	HOUSING		FUNCTION		OUTPUT		SUPPLY		RANGE	
	P D	Plug-in DIN rail	NC	Level control with DC supply	A B	SPDT DPDT	712 724 024 048 110 230 400 901 902	12 VDC 24 VDC 24 VAC 48 VAC 110..125 VAC 220..230 VAC 380..415 VAC 15..70 VAC/DC 60..240 VAC/DC	45K	8KΩ..45 KΩ

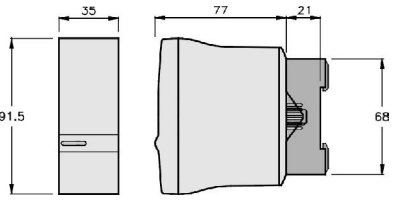
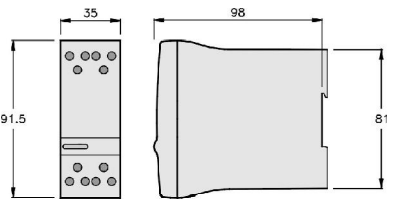
To compose the reference, select one option of each column. Example: **PNCA 724 45K**



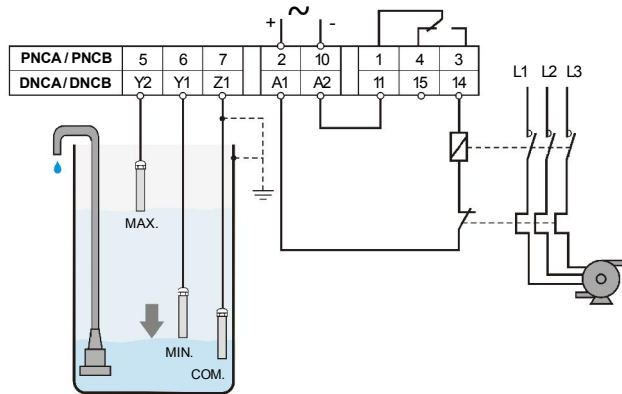

		PNCA		PNCB		DNCA		DNCB		
										
Output relays	Resistive load	AC	10 A / 250 V	8 A / 250 V	10 A / 250 V	8 A / 250 V	10 A / 250 V	8 A / 250 V		
		DC	0,4 A / 200 V	0,25 A / 200 V	0,4 A / 200 V	0,25 A / 200 V	0,4 A / 200 V	0,25 A / 200 V		
	Inductive load	AC	10 A / 24 V	8 A / 24 V	10 A / 24 V	8 A / 24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

	AC		DC		ACDC	
	PNCA / PNCB	DNCA / DNCB	PNCA / PNCB	DNCA / DNCB	PNCA / PNCB	DNCA / DNCB
						
Galvanic isolation	Yes		No		9XX: Yes	UXX: No
Consumption	1,6 VA		1,2 W		1,6 W	1,7 W
Frequency	50 / 60 Hz		-		-	
Operating margins	±10%..-15%		±10%		-	
Positive	-		Terminal 2	Terminal A1	Terminal 2	Terminal A1
Protected polarity	-		Yes		Yes	

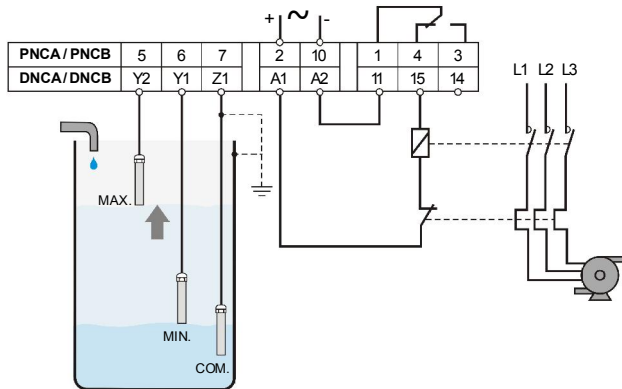

Constructive and environmental data	PNCA / PNCB		DNCA / DNCB	
	Voltage phase-neutral	300 V	300 V	
	Overvoltage category	III	III	
	Rated impulse voltage	4 kV	4 kV	
	Pollution degree	2	3	
	Protection	IP 20 B	IP 20	
	Approximate weight	250 g	280 g	
	Storage temperature	-50..+85°C	-50..+85°C	
	Operating temperature	-20..+50°C	-20..+50°C	
	Humidity	30..85% HR	30..85% HR	
	Housing	Cycoloy - Light grey	Cycoloy - 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	PNCA / PNCB		DNCA / DNCB	
				

EXAMPLES OF CONNECTION

**Emptying control**Selector in position 

The relay maintains the level between upper and lower electrodes. When the liquid reaches the top electrode is placed on the pump will stop when the liquid falls below the minimum electrode.

**Filling control**Selector in position 

The relay maintains the level between maximum and minimum electrodes. The filling pump starts when the liquid is below the minimum electrode and stop when the liquid reaches the maximum electrode.

LEVEL SENSORS FOR CONDUCTIVE LIQUIDS

- Compact and electrode holder exclusive use electrodes in conductive liquids. Control points are used to separate or combined level including wells and reservoirs of different height.
- They need to connect to a level relay for conductive liquids.
- The number of electrodes is determined by the chosen relay function.

Follow these links for:



[Further information on the level sensors](#)

[Know the installation conditions of the conductive level relays](#)

