

**PNSA  
DNSA  
SNSA**



**LEVEL CONTROL RELAY  
FOR CONDUCTIVE LIQUIDS**

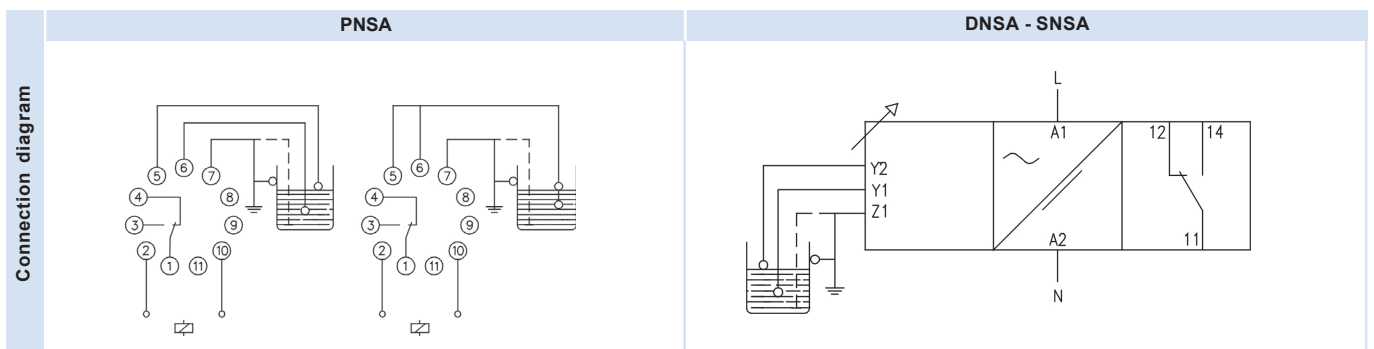
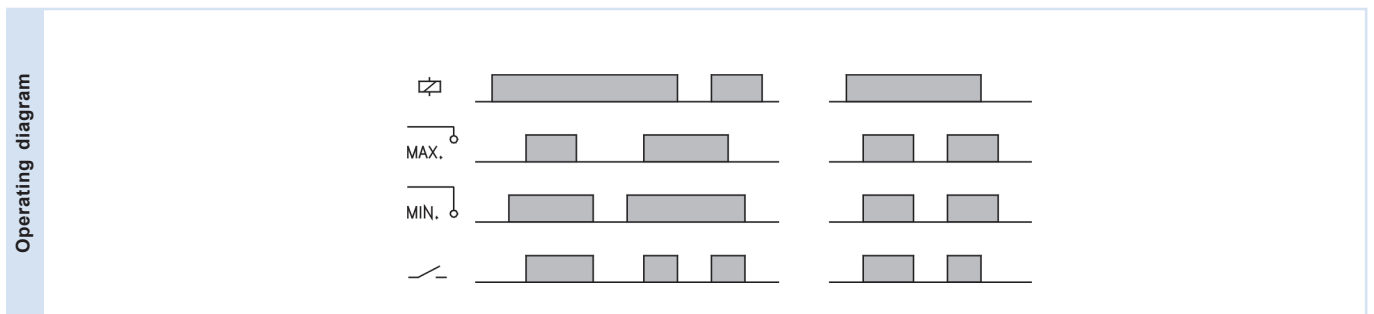


Graphics and buttons may differ from reality.

Difference	· Level control relay for conductive liquids. · Suitable for the more common applications.
Operating principle	<b>Maximum and Minimum control.</b> The relay operates when the liquid reaches the maximum level electrode (5:PNSA; Y2:DNSA-SNSA), and releases when it goes below the minimum level electrode (6:PNSA; Y1:DNSA-SNSA).
Leds indication	Power on: Green Relay on: Red
Sensitivity	Adjustable from 10KΩ to 100KΩ
Voltage in probes line	24 VAC
Current in probes line	4 mA (in shortcircuit)
Probes connection cables	Usually 1 to 2,5 mm <sup>2</sup> 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 terminal 7 (PNSA) o Z1 (DNSA-SNSA), which is the one corresponding to earth.
Ground connection	If the tank is not conductive, an additional probe must be fitted for connecting the ground, terminal 7(PNSA) o Z1 (DNSA-SNSA).
Probes cable length	No specification detailed
Accessories	Electrodes type: NS, NR 43650, NRA 43650, NR, NRA, NT, NRP, NP, NRT2. Separators: NR.SEP, NRA.SEP Attachment nuts: NR.TUE/P, NR.TUE/T Overvoltage protector: PS-3

	HOUSING	FUNCTION	OUTPUT	SUPPLY	RANGE
Reference	P Plug-in	NS Level control relay	A SPDT	024 24 VAC	100 10KΩ~100KΩ
	D DIN rail			048 48 VAC	
	S Flush mounting			110 110~125 VAC	
				230 220~230 VAC	
				400 380~415 VAC	

To compose the reference, select one option of each column. Example: **PNSA 400 100**



		PNSA	DNSA	SNSA	
Output relays					
	Resistive load	AC	8 A / 250 V	8 A / 250 V	8 A / 250 V
		DC	0,25 A / 200 V	0,25 A / 200 V	0,25 A / 200 V
	Inductive load	AC	8 A / 24 V	8 A / 24 V	8 A / 24 V
		DC	2,5 A / 250 V	2,5 A / 250 V	2,5 A / 250 V
	Mechanical life		> 30 x 10 <sup>6</sup> operations	> 30 x 10 <sup>6</sup> operations	> 30 x 10 <sup>6</sup> operations
	Max. switching rate, mech.		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
	Contact material		AgNi 90/10	AgNi 90/10	AgNi 90/10
	Maximum voltage		440 VAC	440 VAC	440 VAC
	Operating voltage		250 VAC	250 VAC	250 VAC
	Volt. between changeovers		2500 VAC	2500 VAC	2500 VAC
	Voltage between contacts		1000 VAC	1000 VAC	1000 VAC
	Voltage coil/contact		5000 VAC	5000 VAC	5000 VAC
Distance coil/contact		10 mm	10 mm	10 mm	
Isolation resistance		> 10 <sup>4</sup> MΩ	> 10 <sup>4</sup> MΩ	> 10 <sup>4</sup> MΩ	

Supply	AC	
	PNSA	DNSA/SNSA
	Galvanic isolation	
	Yes	
	Frequency	
50 / 60 Hz		
Operating margins		
±10% -15%		
Positive		
-		
Protected polarity		
-		

Constructive and environmental data	PNSA	DNSA	SNSA	
	Voltage phase-neutral	300 V	300 V	300 V
	Overvoltage category	III	III	III
	Rated impulse voltage	4 kV	4 kV	4 kV
	Pollution degree	2	3	2
	Protection	IP 20 B	IP 20	IP 20
	Approximate weight	250 g	280 g	270 g
	Storage temperature	-50°C +85°C	-50°C +85°C	-50°C +85°C
	Operating temperature	-20°C +50°C	-20°C +50°C	-20°C +50°C
	Humidity	30~85% HR	30~85% HR	30~85% HR
	Housing	Cycloxy - Light grey	Cycloxy - Light grey	Cycloxy - Light grey
	Socket	Lexan - Light grey	-	-
	Visor leds	Lexan - Transparent	Lexan - Transparent	Lexan - Transparent
	Button, terminal block, clip	Technyl - Dark blue	Technyl - Dark blue	Technyl - Dark blue
Pins of the socket	Nickel-plated brass	-	-	
Pins of the terminal block	-	Brass	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	PNSA	DNSA	SNSA

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