



Fig.1 The PAC23NZ module.

APPLICATION

The relay module used to work as an executive element with analog outputs of the controller to activate peripheral equipment requiring greater power. It is used in systems where on voltage decay circuits closing is required.

DESCRIPTION

The PAC23NZ is six relay module with SPST-NC contacts, containing two independent 3-bit analog to digital converters. In each channel the analog signal (0 - 10V) from the controller is converted to 8 discrete, voltageless output states. Built-in input voltage level detection circuit allows enforce logical signals without transition states (no short switching of contacts). An important parameter is **the input signal settling time**. Typically it is 400ms and can be adapted to the needs of the customer in the range of 20ms up to several minutes. Time should be chosen to be equal to or greater than the output signal settling time of the controller, which proofing the module for short-term interference. The hysteresis circuit prevents contacts from "flickering" in switching points. LED diodes indicate output states according to enclosed diagram.

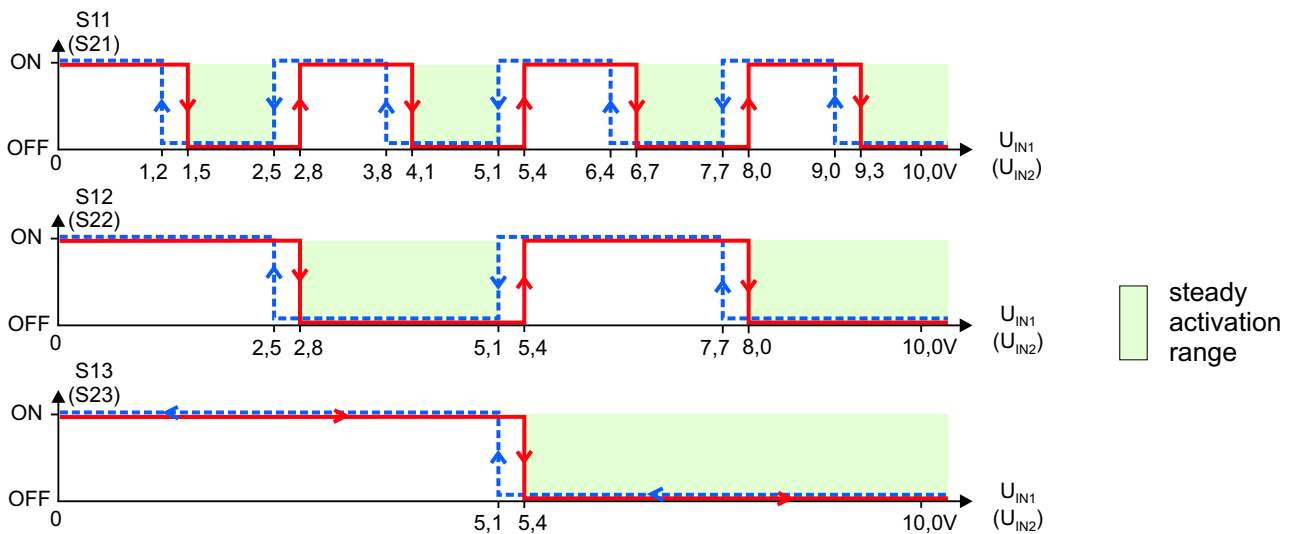


Fig.2 Switching diagram.

TABLE OF STATES

U_{IN1} (U_{IN2}) [V] increasing	U_{IN1} (U_{IN2}) [V] decreasing	S11 (S21)	S12 (S22)	S13 (S23)
0	0	●	●	●
1,5	1,2	○	●	●
2,8	2,5	●	○	●
4,1	3,8	○	○	●
5,4	5,1	●	●	○
6,7	6,4	○	●	○
8,0	7,7	●	○	○
9,3	9,0	○	○	○

● - closed contacts, LEDs switched-off
○ - opened contacts, LEDs switched-on
adjust accuracy $\pm 0,5\%$

PAC23NZ

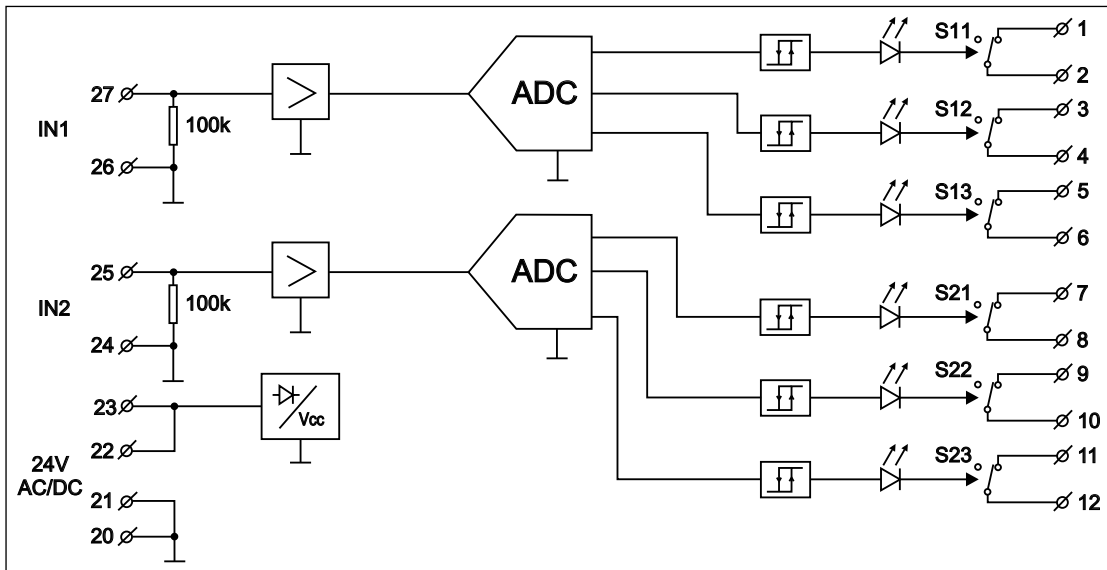


Fig.3 Connections of the PAC23NZ.

TECHNICAL DATA

Power supply	24 V AC/DC \pm 10%
Max. current consumption	130 mA for 24 V AC 60 mA for 24 V DC
Input resistance	100k Ω
Input voltage	0 - 10V
Sensitivity	10mV
Input signal settling time	400ms
Hysteresis width	0,3V
Contact switching capacity alternating current $\cos\phi=1$ direct current	380V, 8A [2000VA] 32V, 8A
Mechanical endurance of contacts	2×10^7 operations
Protection class of the case	IP-40
Protection class of terminals	IP-20
Ambient temperature range	-10...+55°C
Diameter of terminals	2,5 mm ²
Protections	against reverse polarisation
Mounting	DIN-35 or DIN-32 rail
Dimensions (L x W x H)	96mm x 70,5mm x 42mm
Weight	190 g

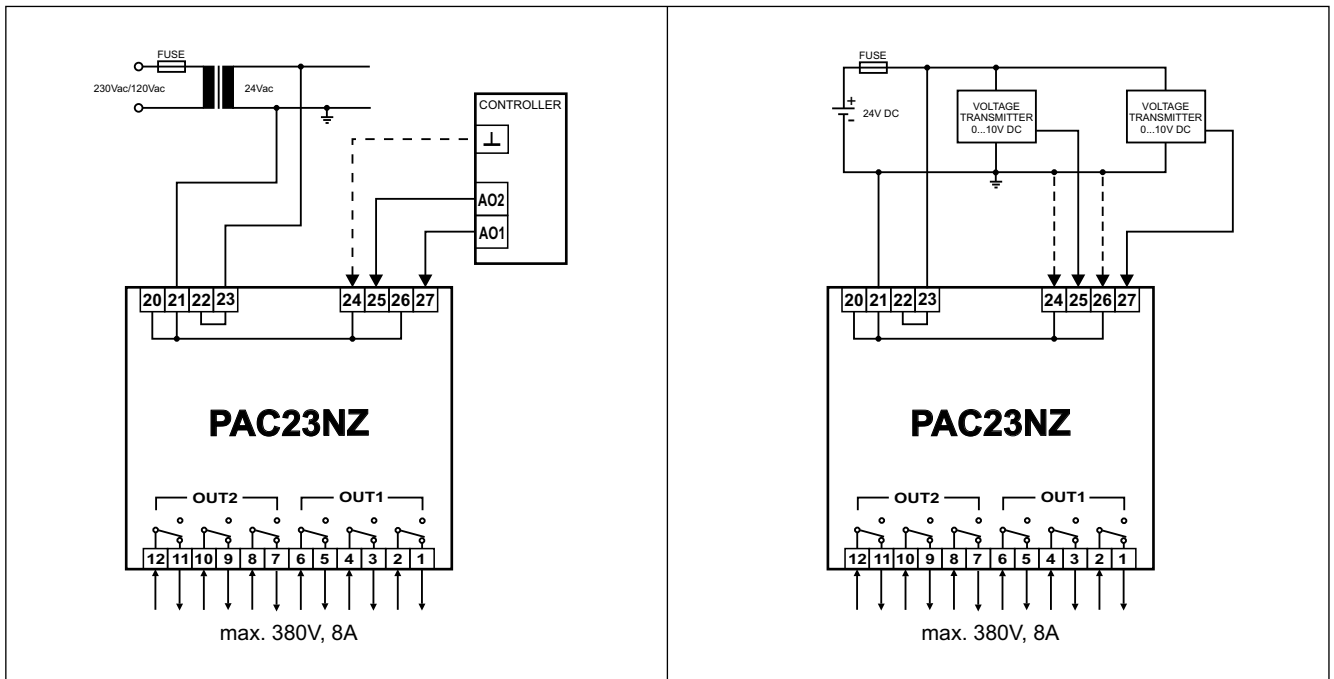


Fig.4 Example ways of connecting the PAC23NZ.

Terminals 20 and 22 are supporting, for example, to provide power to other modules. Connection the terminal 24 or the terminal 26 to the ground of the controller (voltage transmitter) is recommended.

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