

The MP-1 relay module is a multi-purpose electrical device, designed to facilitate construction of low-voltage electrical installations (e.g. security systems). It has 4 electromagnetic relays and 5 fuses connected in series in the output voltage circuits. The relay module makes control function possible in electrical devices which require high current consumption (up to 8A) and are supplied with the alternating voltage. The control function is performed by means of voltage signals (e.g. 0V and +12V) fed to the control inputs and is limited to making or breaking of the relay contacts. The essential purpose of the module is interfacing with the OC type outputs in the SATEL manufactured CA-5, CA-6, CA-10, CA-64 and/or INTEGRA alarm control panels as well as in the GSM-4 communication module. The current-carrying capacity of the OC type outputs in these devices is limited to 50mA.

### MODULE DESCRIPTION

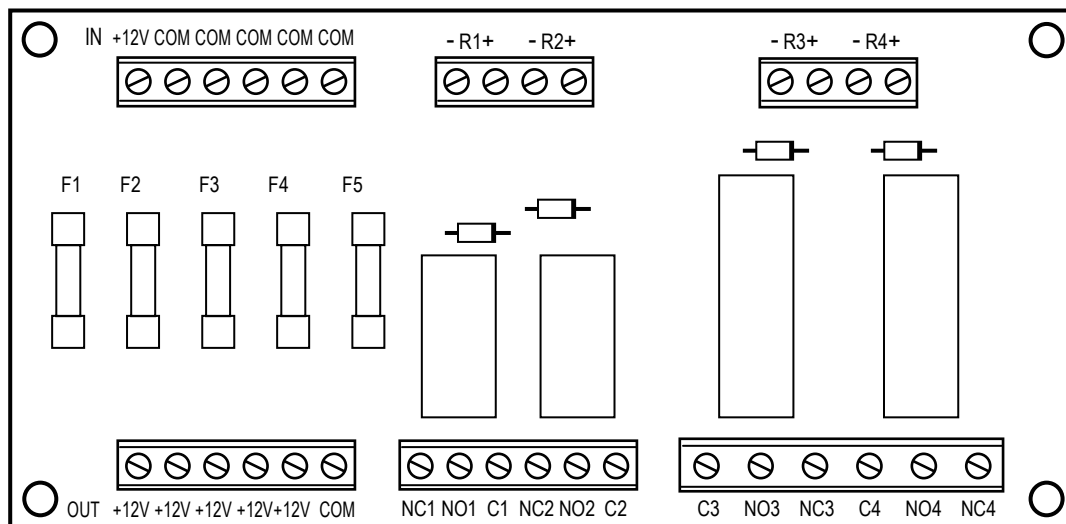


Figure 1. View of the module board

#### MODULE TERMINALS:

- C1 to C4** – common relay terminal
- NC1 to NC4** – normally closed relay terminal
- NO1 to NO4** – normally open relay terminal
- ±R1 to ±R4** – relay control voltage inputs
- IN +12V** – supply voltage input
- OUT +12V** – supply voltage outputs
- COM** – ground

The supply voltage outputs are individually protected with time-delay cut-outs.

The **COM** terminals are common for the module input and output voltage.

**The relays** are controlled with **+12V direct voltage**. The control voltage must be suitably polarized. The plus of the control voltage is to be connected to the **+R** terminal, and the minus -to the **-R** terminal of the corresponding relay (1...4).

At the control voltage of 13.7V DC, the relay maximum **current consumption** is **22mA**.

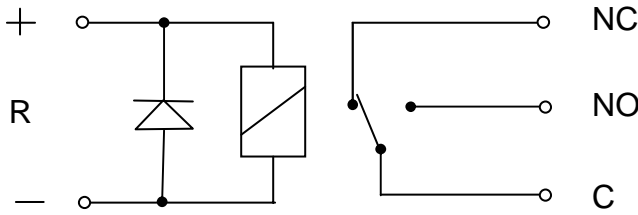


Figure 2. Connection diagram of relay circuit (R1 to R4).

In normal condition, when the relay is not operated with direct voltage, the C and NC contacts are closed, and the NO contact is cut off. When operated with direct voltage, the C and NO contacts close, while the NC contact remains cut off.

**Alarm control panel CA-6 plus (SATEL)**

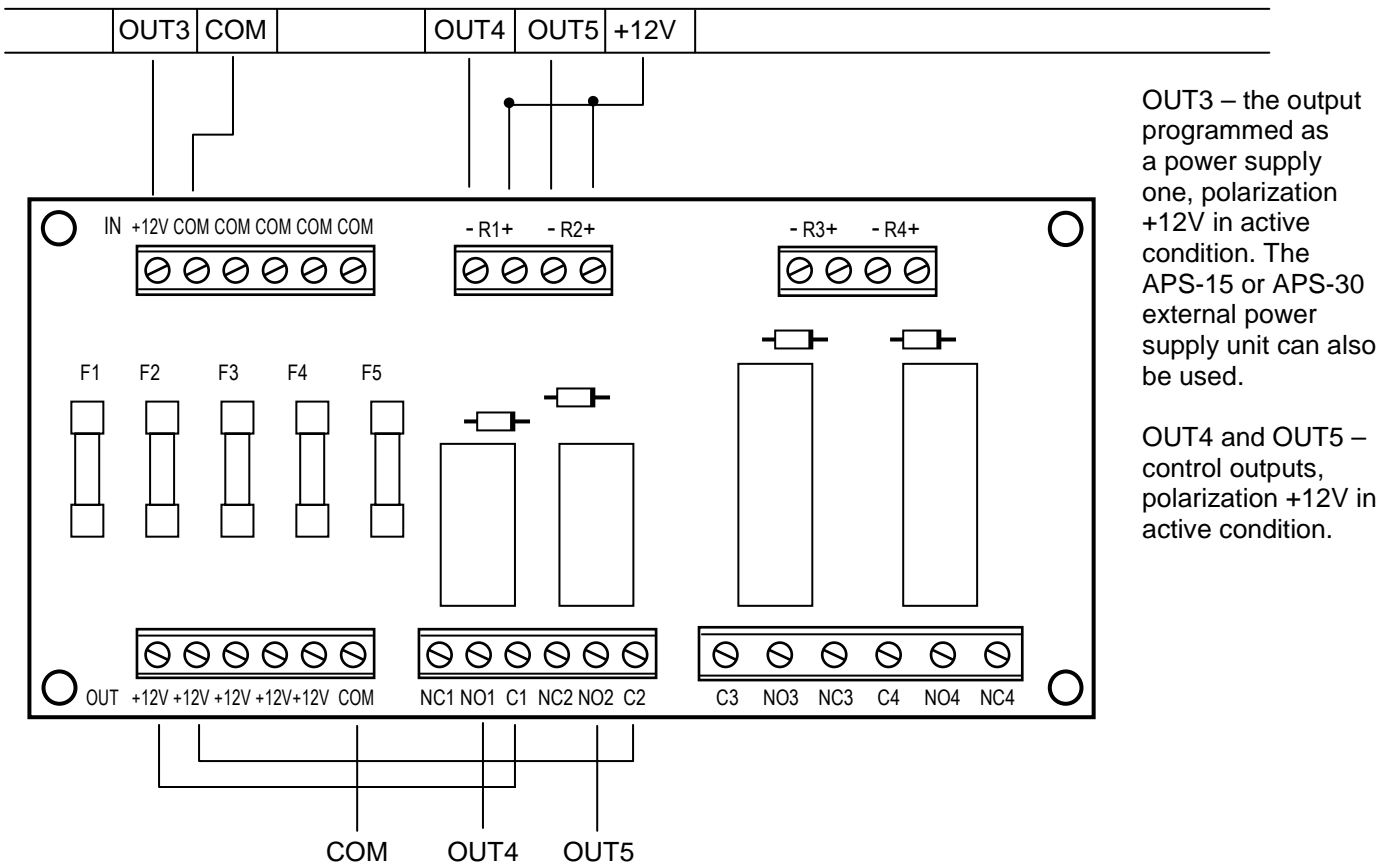


Figure 3. Example of the module application in changing low-current outputs (OC type) for high-current ones in the CA-6 plus control panel.

**TECHNICAL DATA**

Fuse (5 pc.).....	WTA-T 400mA
Nominal (control) voltage of relay coil.....	12V ±3V DC
Maximum voltage of R1, R2 relay contacts.....	48V AC/DC
Maximum voltage of R3, R4 relay contacts.....	400V AC/250V DC
Continuous current-carrying capacity of R1, R2 relay contacts.....	4A
Continuous current-carrying capacity of R3, R4 relay contacts.....	8A
Current-carrying capacity when changing contacts of R1, R2 relays.....	2.5A
Ambient temperature .....	-20°...+70° C
Weight.....	106g