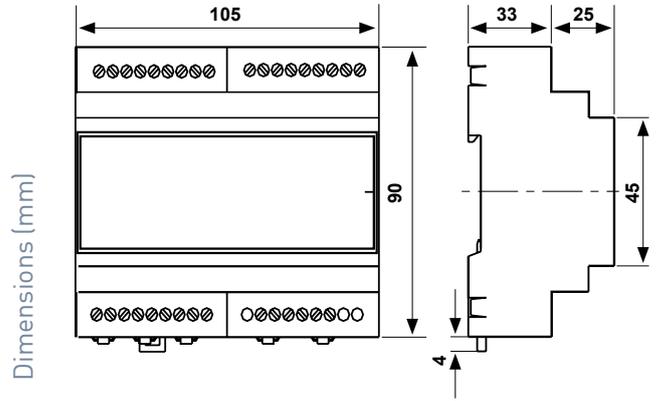


# EV91D

## Generic output module - SLAVE

The device is suitable to be used on all systems where it is necessary to start up pumps, generic motors and mixing valves and therefore may be used for heating and/or air-conditioning systems, greenhouses, swimming pools and industrial plants.



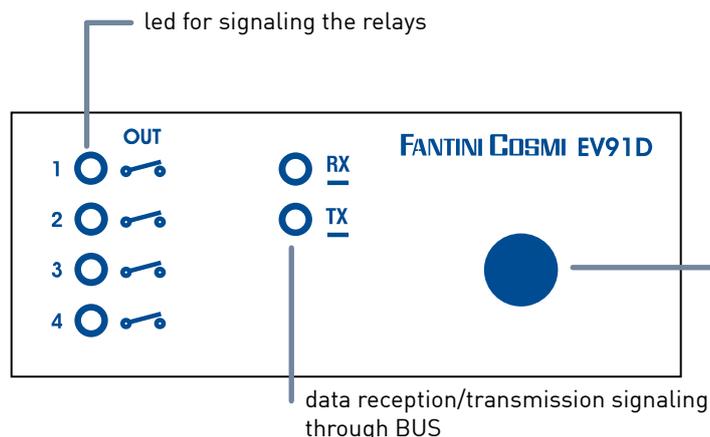
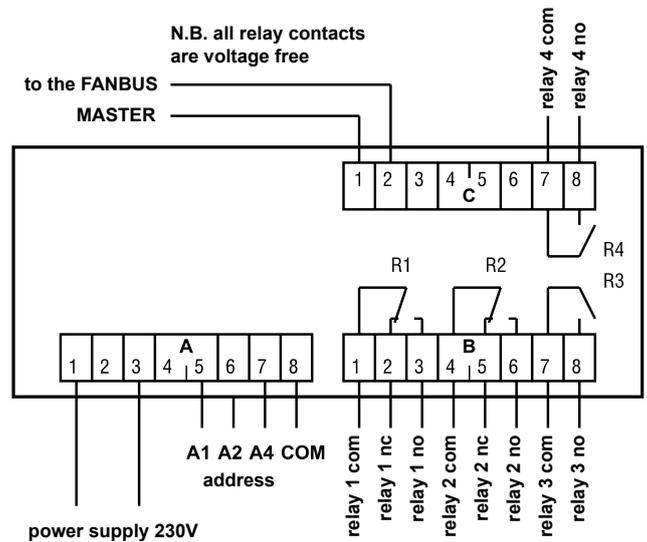
	Power supply	Contacts rating	Operating admissible temperature °C	Protection degree
EV91D	230V 50 Hz	5A-250Vca	0 ÷ 50	IP40 (back panel)

### ELECTRICAL FEATURES

- Power supply: 230V 50Hz.
- Consumption: 3 VA.
- 4 output relays.
- 1 communication channel - FANBUS.
- Voltage free contacts.

As shown in the diagram on the left, relays 1 and 2 have one contact that is normally open and one that is normally closed, while the relays 3 and 4 have only one contact which is normally open. All programming done by the user for each of the four relays will be always related to the normally open contact.

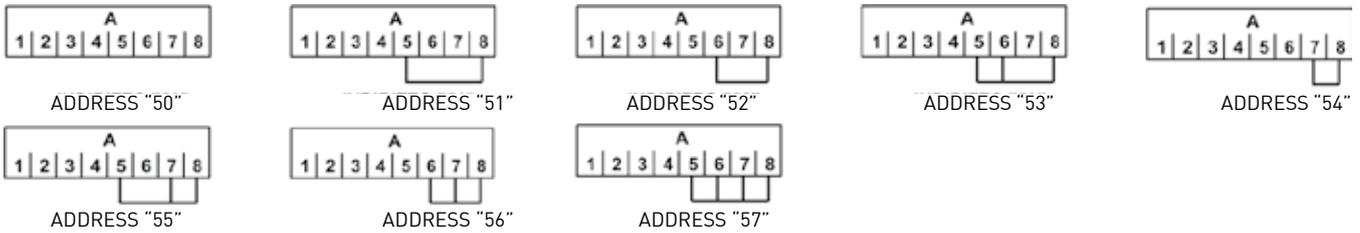
### ELECTRICAL WIRING EXAMPLE



## CONTROL UNIT ADDRESS

The control units must be addressed through the terminal board in order to work properly. EV91D address is composed of a high part that corresponds to the number "5" and a low part that may assume a value from "0" to "7". The MASTER starts a progressive search of EV91D SLAVES from address 50 and stops when it gets a reply. It is therefore necessary that connected slaves have different consecutive addresses starting from address "50".

The below diagrams show how to set the low part of the address by acting on terminal board 'A':



## OPERATION

EV91D comes with four relays, to each of them may be associated an operating program and a weekly programming schedule.

### OPERATING PROGRAMS OF A SINGLE RELAY

Each of four relays may be configured to work in three different modes listed below:

- AUTOMATIC - the relay works automatically by following the programming schedule the user has set.
- ALWAYS OPEN - the relay contact is always kept open.
- ALWAYS CLOSED - the relay contact is always kept closed.

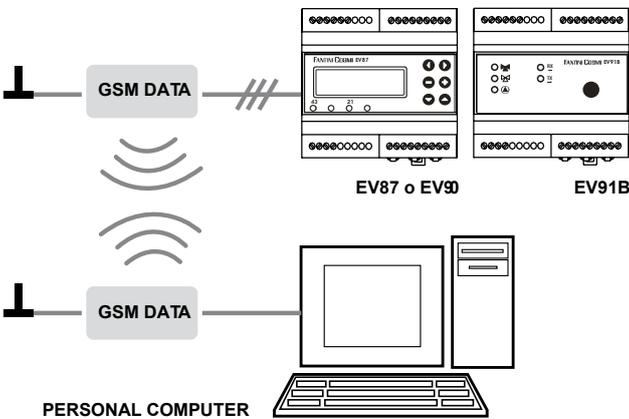
### PROGRAMMING SCHEDULES

All four outputs may be commanded to close by following a programming schedule of three bands for each day of the week, when the relevant relay is programmed in AUTOMATIC mode.

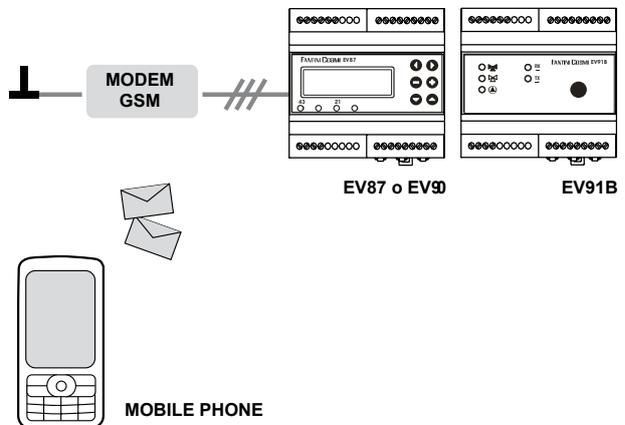
## REMOTE CONTROL

Like with all SLAVE devices connected to EV90 or EV87 MASTER, some parameters of EV91D may be changed remotely by using an analogue or GSM modem connected to the same MASTER.

### DATA CONNECTION



### SMS CONNECTION



## STANDARDS AND HOMOLOGATIONS

Complies with the law 373, law n.10 dated 9 of January 1991 and D.P.R.412 dated 26 of August 1993. In conformity with EN 60730-2-9; EN 60730-2-7 standards.

## INSTALLATION

DIN-rail mounting (6 modules). To ensure an adequate protection install the device on the DIN-rail within a framework. The removable terminals facilitate the wiring and a possible replacement.

## FEATURES

Daily programming for each of the 4 relays.

Parameters visualization and modification by means of FANBUS from EV90 or EV87 MASTER.

Possibility to control the switching (ON - OFF) through the remote management, maintaining the configuration time.

Local programming or via SMS messages (with GSM modem) or via remote computer (with analog PSTN modem) via the communication bus (FANBUS) and the MASTER EV90 or EV87.

Addressing through jumpers on the terminal board.