

## 1. GENERAL FEATURES:

**Reading points:** 22 digital inputs, configurable for reading keys (3 pressing types), reading of security equipment (PIR, Gas, Fire) and status reading.

1 analog input dedicated for reading up to 5 Smoke / Fire sensors using conventional (2-wire).

Detection of Power Of Detection.

**Control:** Via MD BUS;

**Applications:** Reading keys and general sensors;

**Installation:** DIN Rail Distribution Board.

## 2. GENERAL SPECIFICATIONS:

**Mains Voltage:** 12VDC;

**Consumption:** 35mA @ 12VDC;

**Storage Temperature:** -10°C to 60°C;

**Operating Temperature:** 10°C to 50°C;

**Maximum humidity:** 80% non-condensing;

### **Specifications Inputs:**

Nominal voltage at the inputs:

Digital: Low Voltage 5VDC;

Analog: 12VDC Low Voltage;

Maximum allowable resistance of contacts on input: 50Ω.

### **Physical Specifications:**

**Dimensions:** 157mm X 90mm X 70mm DIN rail mounting, 9 modules; Box Plastic, self-extinguishing UL-94 V0;

**Level Protection:** IP20, for indoor use.

### **Directives:**



## 3. COMPATIBILITY:

**PCCWd Compatibility:** Firmware 3.4 or higher;

**Mordomus Software Compatibility:** Mordomus Software v2015.2 or higher.

## 4. SECURITY:

Before making any connections, please read these instructions carefully.

Never remove the plastic base from DIN rail.

## 5. CONNECTIONS:

Thickness of conductors:

Bus Circuit:

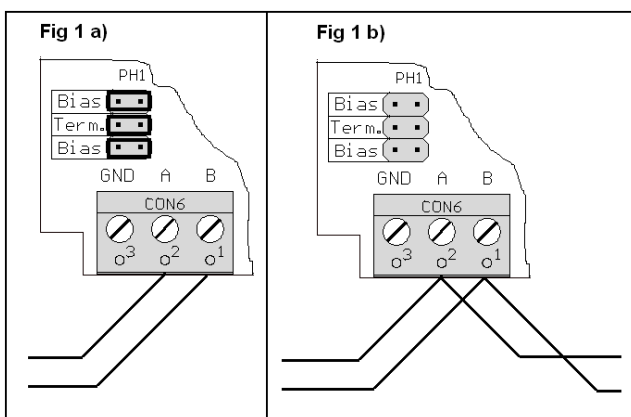
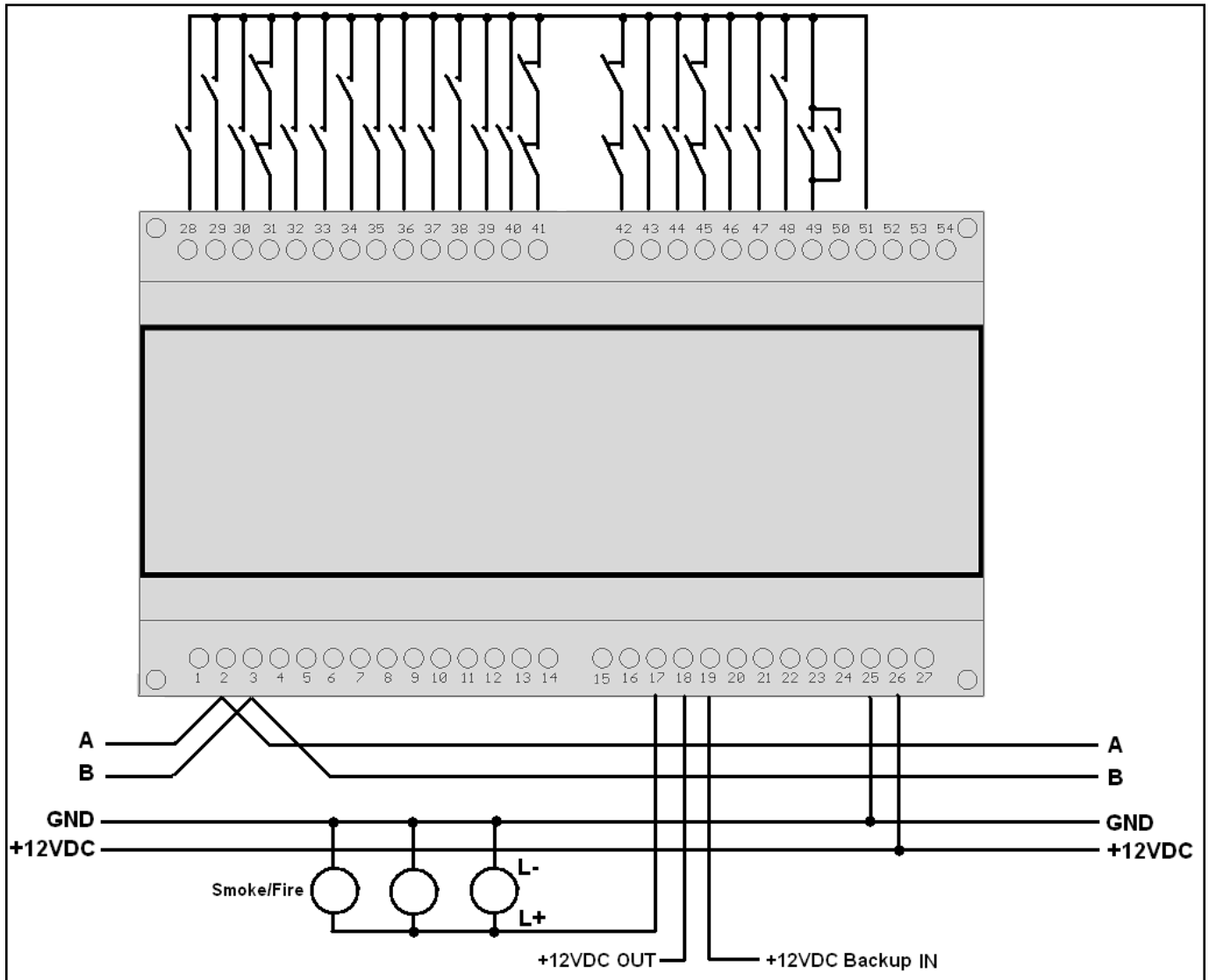
CAT6 Cable F/UTP shielded, twisted;

Power circuit:

Mono-wire or multi-wire at least 0.75mm<sup>2</sup>;

### **Table of Connections:**

Number	Function	Number	Function
1	GND	35	Digital IN Ch15
2	MD Bus RX (A)	36	Digital IN Ch14
3	MD Bus RX (B)	37	Digital IN Ch13
7-16	GND	38	Digital IN Ch12
17	Smoke Sensor	39	Digital IN Ch11
18	+12VDC p/ 22 PIRs	40	Digital IN Ch10
19	+12VDC maintained UPS	41	Digital IN Ch9
20-25	GND	42	Digital IN Ch8
26	+12VDC	43	Digital IN Ch7
27	GND	44	Digital IN Ch6
28	Digital IN Ch22	45	Digital IN Ch5
29	Digital IN Ch21	46	Digital IN Ch4
30	Digital IN Ch20	47	Digital IN Ch3
31	Digital IN Ch19	48	Digital IN Ch2
32	Digital IN Ch18	49	Digital IN Ch1
33	Digital IN Ch17	50-54	GND
34	Digital IN Ch16		



In case the module is the last on the bus Bus, jumpers should be placed according to Fig 1 a) to close the chain BUS.) In case of very large bus length, you may need to put the jumper *Term.* In other situations they should remain as in Fig 1 b).

### Connect the Bus:

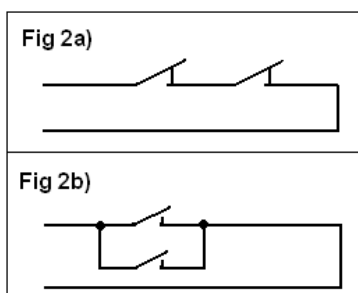
To connect the BUS, must be used a pair-Interlace CAT6 cable. For example, Green for **A** and Green/White for **B**, The shield should be connected to GND.

### Connecting more than one device per input:

Keys must be connected in parallel, Fig 2b).

Sensors with normally closed contact (NC) should be connected in series, Fig 2a).

Sensors with normally open contact (NO) must be connected in parallel, Fig 2b).



## Connect the 12VDC:

To ensure the functionality of Power Off Detection (POD), the power supply connected to terminal 19 has to be feed from a UPS and the 12VDC power supply terminal 26 can't be supported by UPS.

It is recommend the use of Mean-Well power supplies, DR60-12 and DR30-12.

**Connect analog 2-wire smoke/fire detectors:** IN22Wd allows connection of up to 5 detectors. The detectors must be connected in parallel using the terminal 17 to the positive line and negative line to GND.

## 6. ADDRESSING AND CONFIGURATION:

To assign the desired module follow the procedure:

1. Open the "Register modules" in the Mordomus software;
2. Press address (Addressing) inside the module. The Green LED will blink slowly and the red LED will pulse once.

**Note that after three minutes without having assigned a new address, the module automatically returns to normal.**

3. Set the desired address in the window now displayed on Software Mordomus.

**The chosen address must not be shared with another module.**

4. Define the type of each input as well as other parameters.

## 7. FUNCTIONING:

### Led Code:

**Green LED ON:** Module powered;

**Green LED blinking briefly:** Module to receive data;

**Green LED blinking continuously:** Module awaiting address;

**Red LED blinking:** module sending data.

**The inputs defined for reading sensors (PIR, gas, etc.) are limited to one event/detection each 20 seconds. After each event/detection, this input will not detect other events for 20 seconds.**

**In the event of smoke/fire detection at an analogue input, detectors are reactivated automatically one minute after detection (cutting power for 4 seconds), and so, it is again ready for a new detection. The address regarding this input is the last address in the module. There is no need for end-of-line Resistor.**

**Reset:** To perform a reset to the module, cut power supply 12VDC for a few seconds or place the jumper according to Fig 3 b) for about 3 seconds and put it back in its original position (Fig. 3 a)).

