

1. GENERAL FEATURES:

Communication: MDiBus (Half-duplex) e RS232 (Full-duplex);

MDiBus control outputs: 3000 inputs and outputs;

Control outputs direct in module: 8 open-collector outputs.

Inputs: 8 digital inputs, configurable for reading keys (3 pressing types), reading security equipment (PIR, Gas, Fire) status reading and meter.

Connectivity: 1 X LAN (RJ45), 2 X USB, 1 X audio Out 2 channels, 8 digital inputs + 8 digital outputs, 1 X MDiBus (RJ45), Bluetooth, WLAN;

Applications: Processing center for Mordomus iThink modules;

Installation: Control panel in DIN rail or fastening by 4 non-standard screws.

2. GENERAL SPECIFICATIONS:

Mains Voltage: 12VDC;

Consumption: 6A @ 12VDC;

Communications: GSM Quad-Band and USB;

Storage Temperature: -10°C a 60°C;

Operating Temperature: 10°C a 50°C;

Maximum humidity: 80% non-condensing;

Physics Specifications:

Dimensions: 154mm X 110mm X 60mm, DIN rail mounting (9 modules);

Level Protection: IP20, for indoor use;

Self-extinguishing plastic box UL-94 V0;

Output Specifications:

Rated current: 0.5A;

Type: Open-Collector.

Inputs Specifications:

- **Rated Voltage in the Inputs:**

- **Digital:** 5VDC low voltage;

- **Maximum permissible resistance of the contacts connected to the input:** 50Ω.

Directives:

 - Electromagnetic Compatibility Directive / EMC Directive 2004/108 / EC

3. COMPATIBILITY:

Compatibility with Mordomus software: Mordomus iThink V2017 or higher.

The GSM communicator of the iThink module complies with the communications standards: CE, GCF, China RTE, R & TTE, PTCRB, AT & T, FCC, IC.

4. SECURITY:

Before making any connections, read these instructions carefully.

Radio frequency transmitters such as the iThink module's GSM communicator may interfere with the correct functioning of under-protected medical equipment. Before using the iThink module GSM near medical equipment, you should consult the responsible doctor or the manufacturer of the medical equipment.

We also advise you to keep a minimum distance of 50cm between the GSM antenna of the iThink module and any medical equipment (pacemaker, hearing aids, etc.).

The radio transmitter contained in the GSM of the iThink module may interfere with the navigation system and / or aircraft communication. You should not connect the GSM from the iThink module inside aircraft

You should not use GSM from the iThink module in explosive atmosphere environments.

Never open the DIN rail support box. **The opening of this may imply the loss of warranty.**

5. CONNECTIONS:

Conductors Cross Section:

Circuit MDiBus + Power Supply: Cable CAT 6 UTP;

The use of a low cross section cable causes voltage drops that could lead the module into protection mode caused insufficient supply voltage.

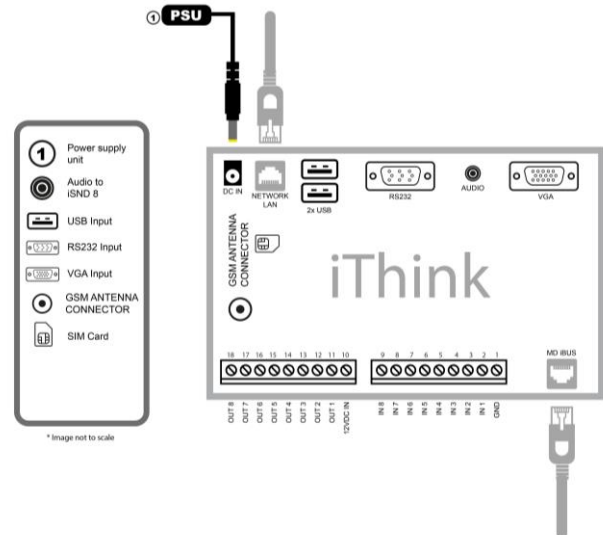
Never connect feeders with output other than 12V 5A.

MDiBus Connections:

To connect the MDiBus, use CAT 6 UTP cable with RJ45 connectors according to EIA568A or EIA568B standards. This connection is made to the first Mordomus module.

In MDiBus there should be no branches.

Image 1



Connections Table:

Nr	Function	Nr	Function
1	GND	10	+ 12VDC
2	Digital IN Ch1/Meter	11	Output OC 1
3	Digital IN Ch2/Meter	12	Output OC 2
4	Digital IN Ch3	13	Output OC 3
5	Digital IN Ch4	13	Output OC 4
6	Digital IN Ch5	14	Output OC 5
7	Digital IN Ch6	15	Output OC 6
8	Digital IN Ch7	16	Output OC 7
9	Digital IN Ch8	17	Output OC 8

Open-Collector Outputs Connections:

The 8 Outputs Open Collector bus can be used using the iRM8 module, connected according to Image 2a or with one or several direct relays according to Image 2b.

Image 2a

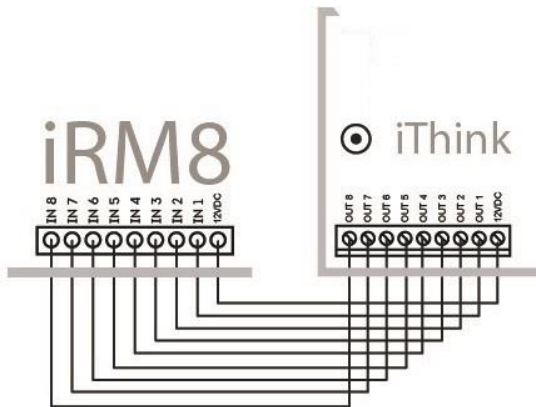
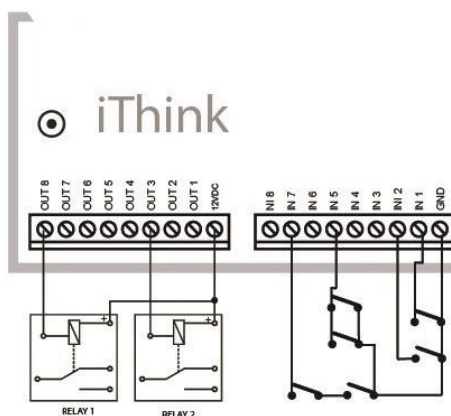


Image 2b


Digital Inputs Connections:

Keys must be connected in parallel, sensors with normally closed contact (N.C.) must be connected in series, sensors with normally open contact (N.O.) must be connected in parallel, (img.1), when there is no more than one. The counters can only be connected to the terminals (2 and 3);

12VDC Power Supply Connections:

It is recommended to use iPSE156 power supply provided with the iThink module. This should be connected to the DC IN of the iThink module; The power supply dedicated to the iThink module **must be** supported by UPS.

Touch Screen Interface Connection:

The iThink module provides an Output VGA (SubD 15Pin) and an RS232 (SubD 9Pin) port for connecting the video port and touch communication with the touch monitor (LP-15).

LAN Network Connection:

The iThink module provides a LAN communications port for connecting the Mordomus system to the home network and the internet. This port should be connected to a port on the Network Router/Switch. To configure it, you must, after connecting to the LAN, access the operating system of the iThink module and make the network settings, see Img.1.

WLAN Network Connection:

The iThink module provides a WLAN communications port for connecting the Mordomus system to the home network and the internet through a wireless connection. To configure it, you must access the operating system of the iThink module and perform the wireless network settings.

SIM Card Connection:

If your iThink module provides GSM, the SIM card must be inserted before powering up.

6. FUNCTIONING:
LEDs code:

Orange LED intermittent: The GSM module is connected to the network;

Red LED blinking: Status RX, sending data from MDiBus;

Green LED blinking: Status RX, receiving data from MDiBus;

Green LED ON and Red LED blinking: Updating process in course;

Red LED ON: Module have no address.

12VDC Power Supply Interruption:

After an interruption of the 12VDC power supply, the iThink module will perform a full system restart.

The resetting of the module implies that the module is switched off and when it is switched on it resets all its previous state.

* To check for a more current version of the manual please go to www.mordomus.com