

## GSM Phone switch with 4 inputs and 2 outputs

### USER MANUAL

The device allows a remote control and monitoring of solar installations through GSM net (mobile).

#### Inputs:

- 1 Temperature probe from -40 to 140°C (S1).
- 1 Alarm contact input (AL). The pressostat must be connected here
- 1 External rechargeable battery (it is possible to set a power fail alarm) (+12V).

#### Outputs (also called channels):

- 1 relay 16(7)A (C1).
- 1 relay 6(2)A (C2).

The control and monitoring is done through SMS (Short Message Service) messages. Manual ON/OFF of the channels by two keys (MENU and SELECT). Led's indicate relays state and alarms (SEE NOTES).

### CONTROL COMMANDS THROUGH SMS MESSAGES

The SMS message that must be sent is quoted (don't include quotation marks). The 4 zeros correspond to the device password (0000 is default value).

#### 1.- MESSAGE HELP: "0000 H"

Device returns an SMS message with all the commands available.

#### 2.- MESSAGE TEST (INPUT AND OUTPUT STATE): "0000 T"

Device returns an SMS message with current inputs and outputs state.

Ex: C1 OFF  
C2 ON  
AL Y OFF  
S1 123.4c Y 120,-40  
B POWER OFF

- Channel 1 OFF, Channel 2 ON.
- Alarm contact input present (indication Y(yes)) and alarm notification disabled (indication OFF).
- Temperature probe S1 123.4°C, temperature alarm present (indication Y), alarm range between -40 and 120°C.
- B: 230Vac powered device (indication POWER).  
Power fail alarm disabled (indication OFF).
- If the device is battery powered the message is BATT

When the probe isn't connected it shows NA, and if the associated probe alarm is enabled then it shows ERROR.

#### 3.- MESSAGE ON/OFF CHANNELS: "0000 CX Z"

X sets the channel (value 1 or 2) and Z sets channel state (value ON or OFF)

Ej: Sending 0000 C1 ON ---> Channel 1 connected  
Sending 0000 C2 OFF ---> Channel 2 disconnected

Device returns the same SMS message as T test command, with current inputs and outputs state. With an \* at the end of the message, device returns no message.

#### 4.- MESSAGE ENABLE/DISABLE CONTACT INPUT ALARM: "0000 AL Z"

Z sets enable or disable (value ON or OFF)

Ex: Sending 0000 AL ON ---> Contact input alarm enabled.

If alarm is present, device sends the message "AL Y ALARM"  
When alarm disappears, the device sends the message "AL N ALARM"

Device returns the same SMS message as T test command, with current inputs and outputs state. When disabled, it returns the same message as L list command. With an \* at the end of the message, device returns no message.

#### 5.- MESSAGE ENABLE PROBE ALARM: "0000 S1 YY,ZZ"

YY sets highest limit alarm and ZZ lowest limit alarm.

Limits must be within more than 2°C, otherwise device sends this message "LIMITS ERROR".

Ex: Sending 0000 S1 23,19 ---> Probe S1 Alarm enabled within 23°C and 19°C

If temperature reaches the highest limit (23°C) or the lowest limit (19°C), then device sends the message: "S1 23.4 °C 23,19"

Device returns the same SMS message as T test command, with current inputs and outputs state. With an \* at the end of the message, device returns no message.

If there is a probe fail and probe alarm is enabled, the device sends the message "S1 ERROR".

#### 6.- MESSAGE DISABLE PROBE ALARM: "0000 S1 OFF"

Ex: Sending 0000 S1 OFF ---> Probe alarm disabled.

Device returns an SMS message with a list of telephones where the alarm messages are sent, like command L.

With an \* at the end of the message, device returns no message.

#### 7.- MESSAGE ENABLE/DISABLE POWER FAIL ALARM: "0000 B Z"

Z sets enable/disable (value ON or OFF)

Device returns the same SMS message as T test command, with inputs and outputs state. When disabled, it returns the same message as L list command.

With an \* at the end of the message, device returns no message.

If a power fail occurs and power fail alarm is enabled, the device sends the message "BATT ALARM".

When the power fail disappears and alarm is enabled, the device sends the message "POWER PRESENT".

#### 8.- MESSAGE PASSWORD CHANGE: "0000 P 1234"

0000 is the old password and 1234 is the new password.

Device returns a message that shows new password "1234".

With an \* at the end of the message, device returns no message.

The password factory default value is 0000.

#### 9.- MESSAGE LIST OF TELEPHONES WHERE THE ALARM MESSAGES ARE SENT: "0000 L"


Ex: AL: Contact input alarm only has one telephone associated  
0034938922408  
-  
S1: Probe S1 alarm has two telephones associated  
0034938922408  
0034938180438  
-  
-  
B:  
0034938922408  
-

#### NOTES:

- To manually set ON/OFF relays, press 1 and 2 keys.

- When the device receives a message from a not recognized telephone (a telephone is recognized when it has sent a valid command previously), and begins with a no numerical character, it understands that this message is informative from a phone company and it is resent it to the first telephone defined in one of the alarms, following next order: AL, S1, B.

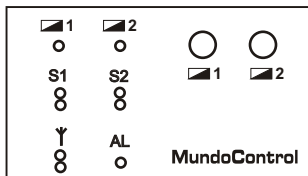
- All the alarms must be associated with a maximum of 2 telephones. If we try to enable an alarm from a third telephone, device sends the message "ERROR, MEMORY FULL".

- To disable all the alarms and erase all the associated telephones, press 1 key during 40 sec.

- Every alarm has a delay of 5 seconds when enabling/disabling to avoid false alarms.

- The SMS message service is not a real time system, it depends totally on phone companies, so it is recommended, to achieve a greater efficiency, that SIM and destiny mobile are of the same phone company.

## LED'S INDICATION



- 1 Channel 1 lit, means ON
- 2 Channel 2 lit, means ON

- Red led ---> Power 230Vac
- Red led blinking --> Device powered by battery
- Y Yellow led blinking --> Device searching GSM net
- Yellow led short blinking --> Device communicating with phone company

- S1** Probe 1 Alarm  
 Yellow led on --> Temperature higher than highest limit  
 Green led on --> Temperature lower than lowest limit  
 Yellow and green on --> Probe S1 error

- AL** Alarm led  
 Led on ---> Alarm present (Contact input closed).

## ERROR MESSAGES

- S1** Yellow and green leds blinking --> SIM card hasn't PIN disabled
- S2** Yellow and green leds blinking --> SIM card not present or bad inserted
- S1 and S2** Yellow and green leds blinking --> Fail sending an SMS message (it happens when prepaid card is empty)

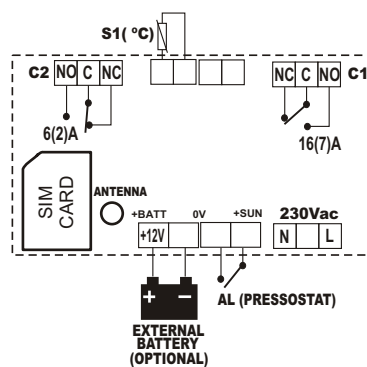
# INSTALLATION MANUAL

**ATTENTION:** before connecting the device, make sure you have turned off the general electricity supply.  
 The installer has the responsibility to provide the proper electrical protection devices.  
 The probe wire mustn't be installed near other electrical wires and must be a maximum length of 3 metres.

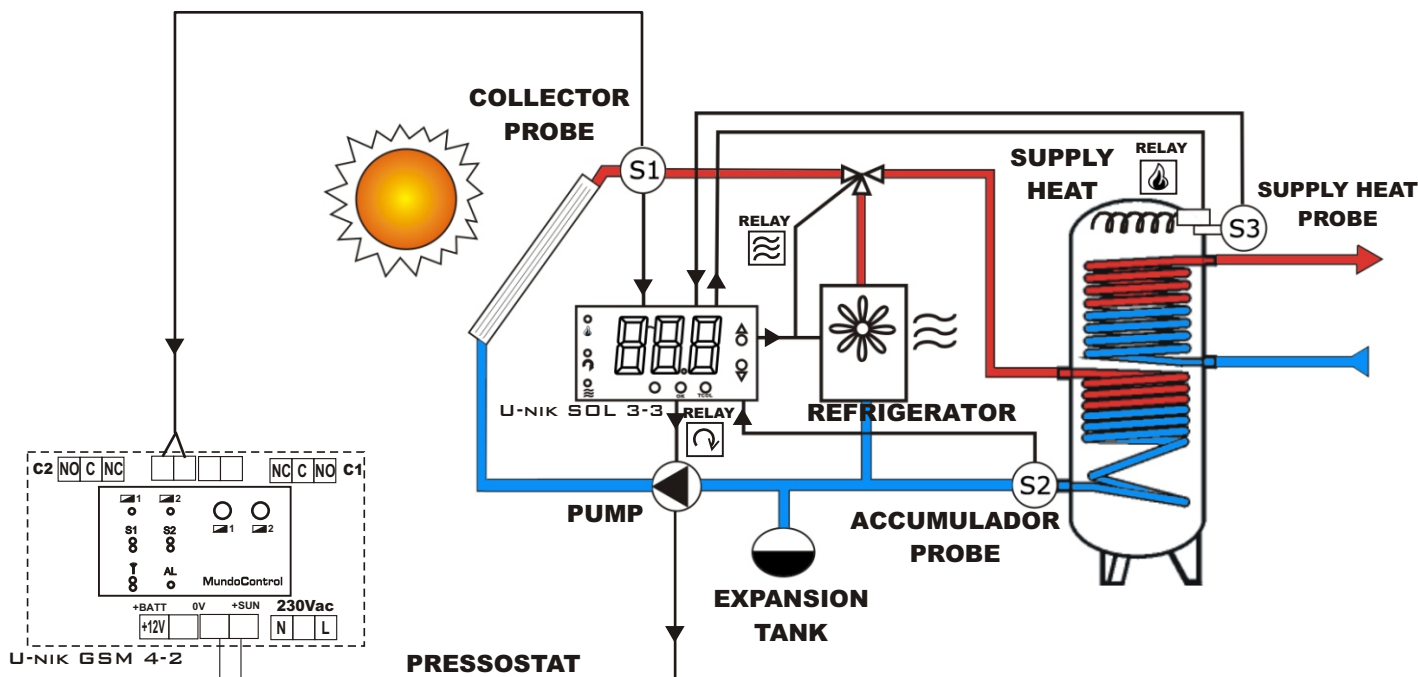
**VERY IMPORTANT:** BEFORE INSERTING SIM CARD IN THE DEVICE, DISABLE SIM CARD PIN.

It is recommended to use long antenna for better performance.

## WIRING DIAGRAM



## APPLICATION SCHEMA



This device has 2 year guarantee. The manufacturer will only repair the device itself, not other parts of installation. The guarantee will be lost onto wrong managing, wrong electrical wiring, contact with fluids or gas, hits, deformation, wrong storage.