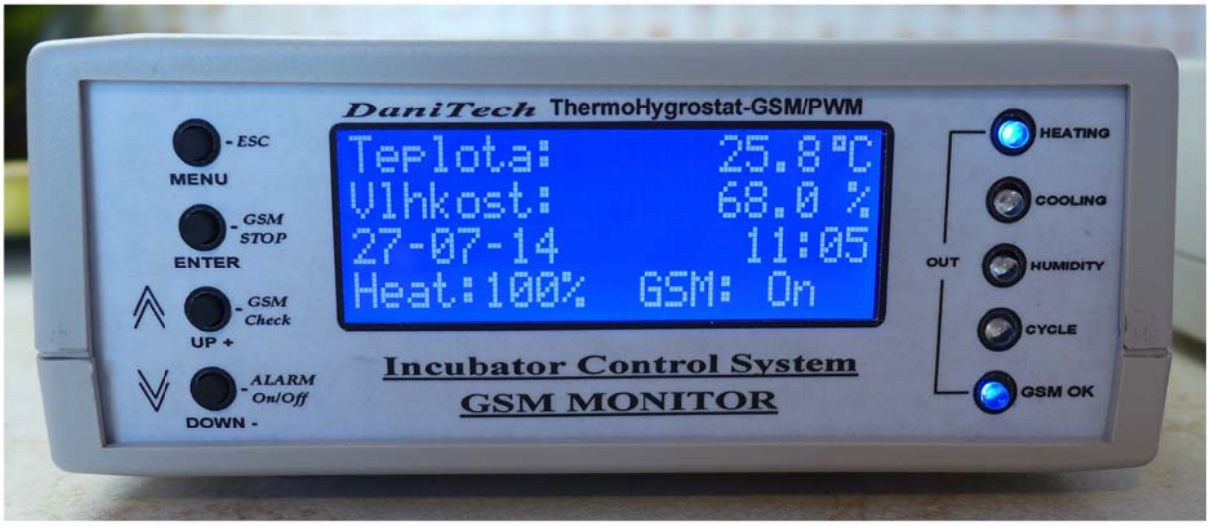
Thermo - Hygrostat - Protect

GSM / PWM



Device is designated for measurement and regulation of temp.and humidity GSM - alarm on the cell phone.

Usage: hatchery, incubator, terrarium, greenhouse and like that.

- ***sends SMS on the cell phone if:***
- ***temperature decreases (humidity) below the value alarm minimum.***
- ***temperature exceeds (humidity) above the value alarm maximum.***
- ***at the loss or failure of sensors.***
- ***at the drop-out of el. power***
- ***at the restoration of el. power***
- ***at the failure (damage) of the output fuse.***
- ***at the activation of the input alarm uni.1 and uni.2***
- ***SMS sending of the current status (checking) after ringing***

- In case of troubles, please contact service man.

+421 904339612

www.morel.snadno.eu

Thermo - Hygrostat - Protect

Version:

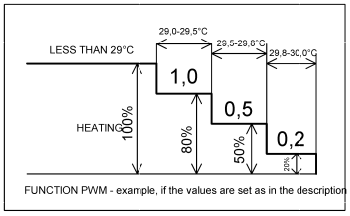
Thermohygrostat GSM
Thermohygrostat GSM-PWM
Thermohygrostat PWM
Thermohygrostat Protect

Functions: *1 x thermostat - heating (difference day/night)*
outputs: *1 x thermostat - cooling (difference day/night)*
1 x hygrostat - moistening or airing (drying)-(difference day/night)
1 x cycler
1 x protective relay, switches off during temperature exceeding alarm.max!!!!

Function HEAT PWM -

** - Only model with PWM!*

Power of heating is decreasing on a percentage basis with approaching final temperature
Maximum loading of the output 250Watt (version PWM)-electronic relay
- guarantees constant and accurate temperature



FUNCTION PWM - example, if the values are set as in the description

Settings:
Day´s temperature 5,0 to 99,9°C, step 0,1°C
Night´s temperature 5,0 to 99,9°C, step 0,1°C
Hysteresis 0,1 to 10,0°C, step 0,1°C
Day´s humidity 10,0 to 99,9% rel.hum.,step 1% rel.hum.(no condensed)
Night´s humidity 10,0 to 99,9% rel.humidity,step 1% rel.hum.(no condensed)
Hysteresis 1 to 10% rel.hum.step 1% rel.hum.
Acoustic alarm of minimum and maximum temperature and humidity
Transit time day/night
Actual time
Time of impulse repeating, impulse length
Time start/stop of cycling

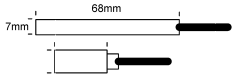
GSM - alarm

** - Only model with GSM!*

Sends SMS at decreasing/exceeding the values of alarm min,max.
At the drop-out of el. power, disconnecting of the output fuse.
At the loss or failure of sensors.
Device sends SMS message of the current status for ringing.
Possibility to choose 3 different telephone numbers on which,
SMS information can be sent.

Contains:

1 x sensor DS 18b20 on the cable of length 2m.
1 x sensor SHT 11 on the cable of length 2m.



5 x output 230VAC,connection by means of terminal box up to 1mm^2

Outputs:

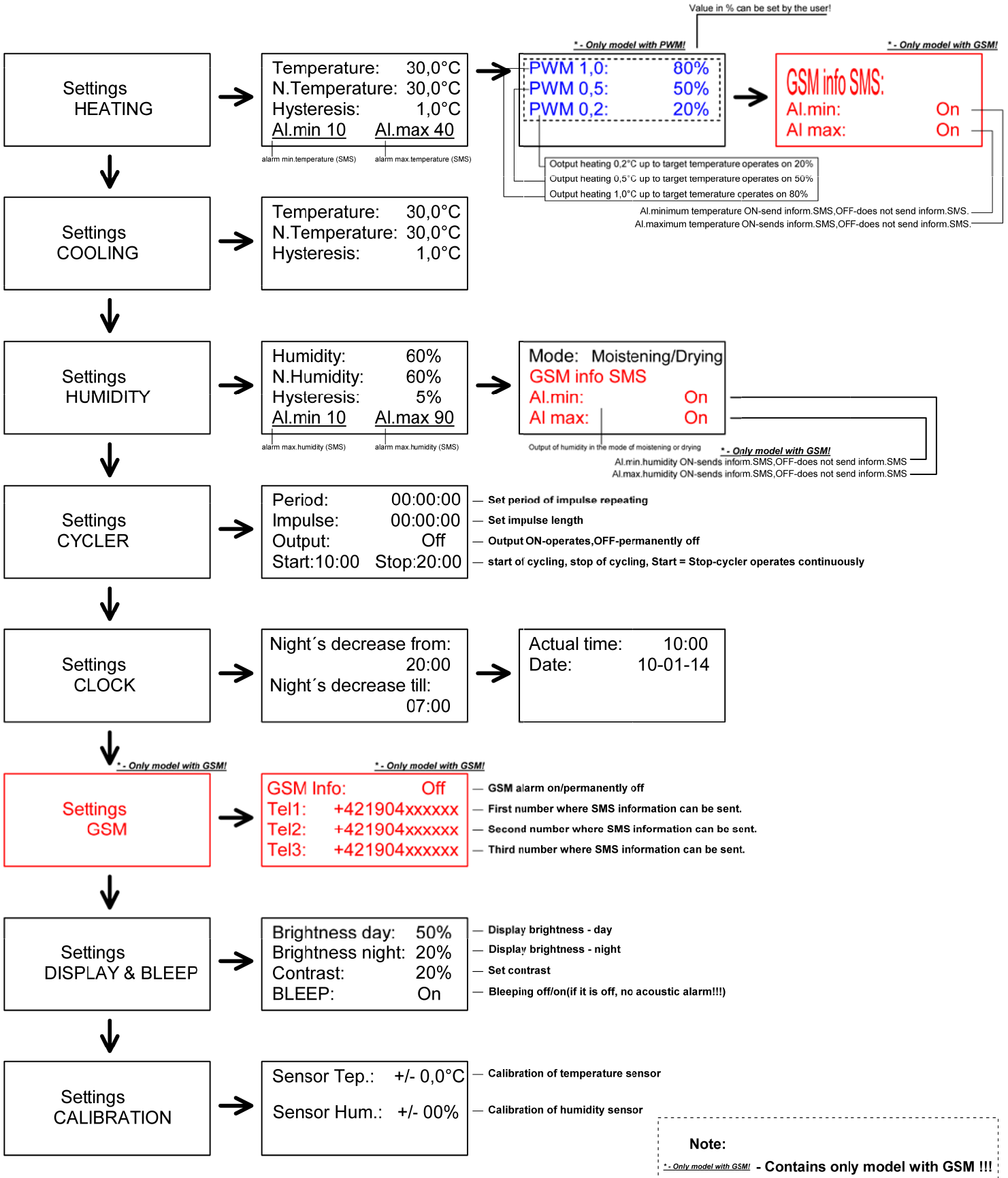
Voltage 230VAC !!!
Fuse 6,3A,it is common for all outputs!!!
Maximum current 6A
Outputs are designated for connection of 2.class devices.

Dimension: *45 x 100 x 130mm*

Device can be neither covered nor built in!
Device of 2.class! (even connected devices)
- Only authorized personnel is allowed to connect the device!!!

Possibilities of settings in MENU:

MENU:	**Menu of settings (return back)**
ENTER:	**Acknowledgement (entry)**
DOWN:	**Shift down**
UP:	**Shift up**

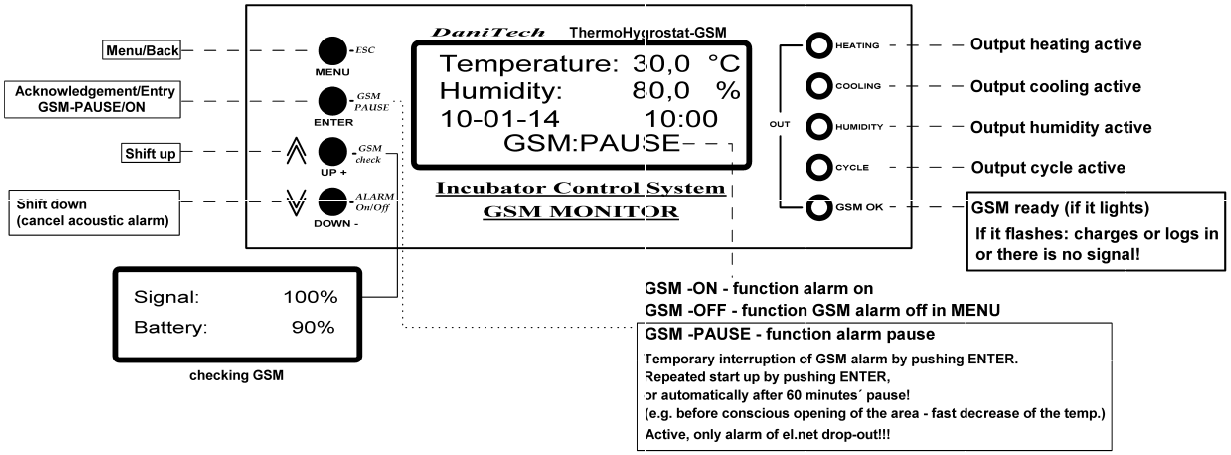


Note:

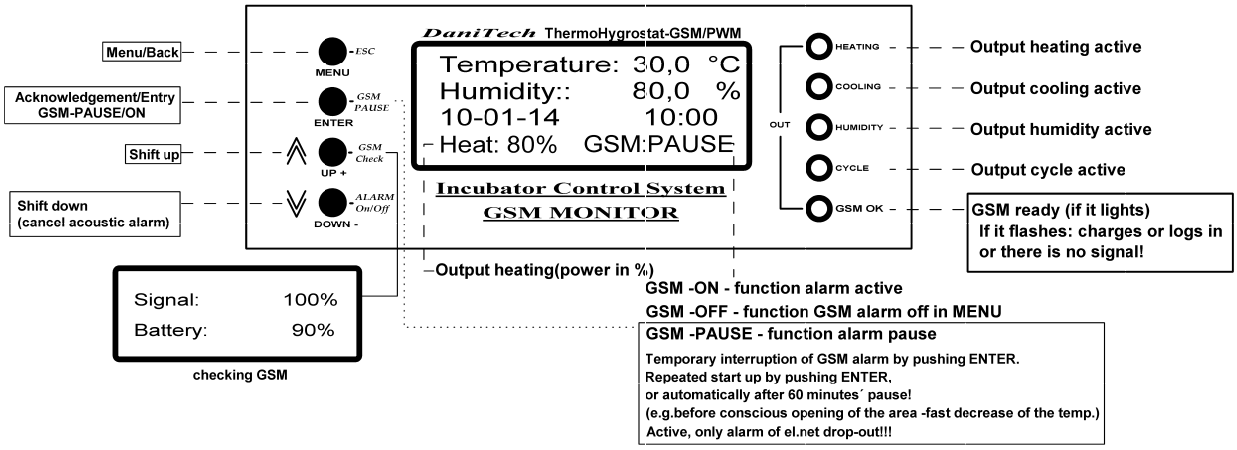
*- Only model with GSM! - Contains only model with GSM !!!

*- Only model with PWM! - Contains only model with PWM !!!

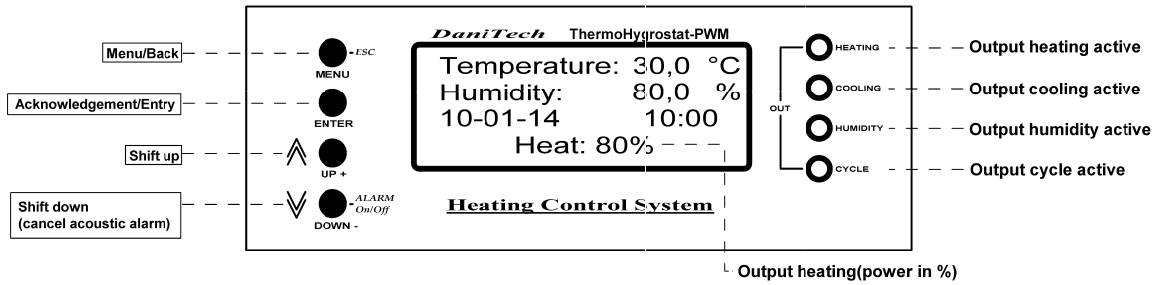
Model: Thermohygrostat GSM



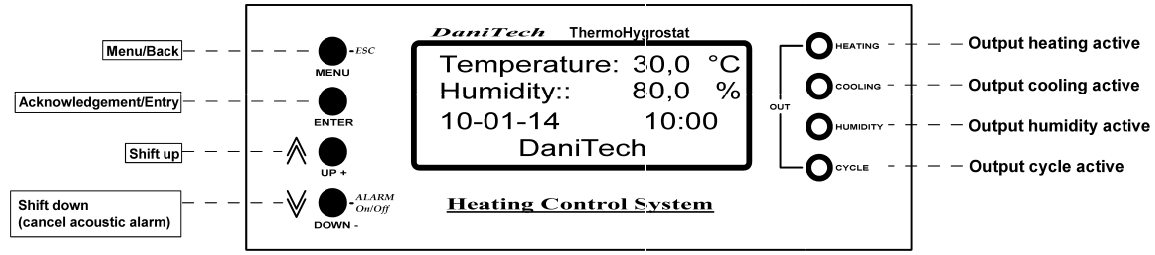
Model: Thermohygrostat GSM s PWM



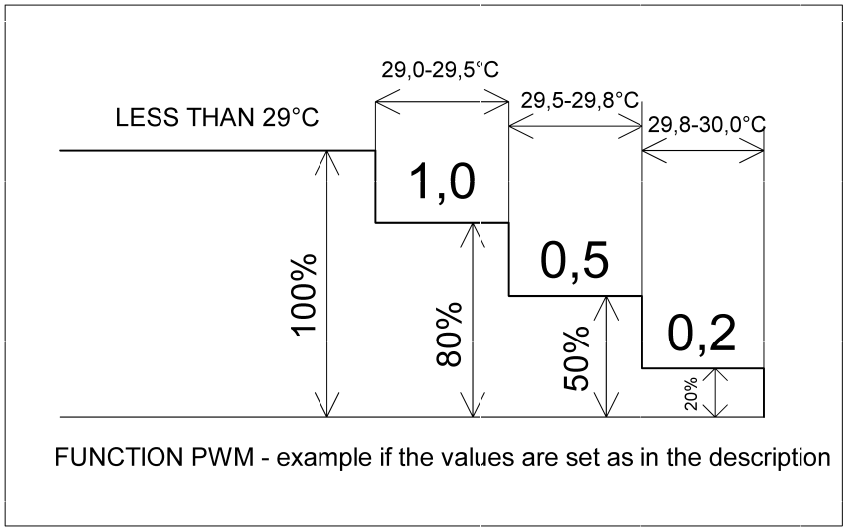
Model: Thermohygrostat PWM



Model: Thermohygrostat



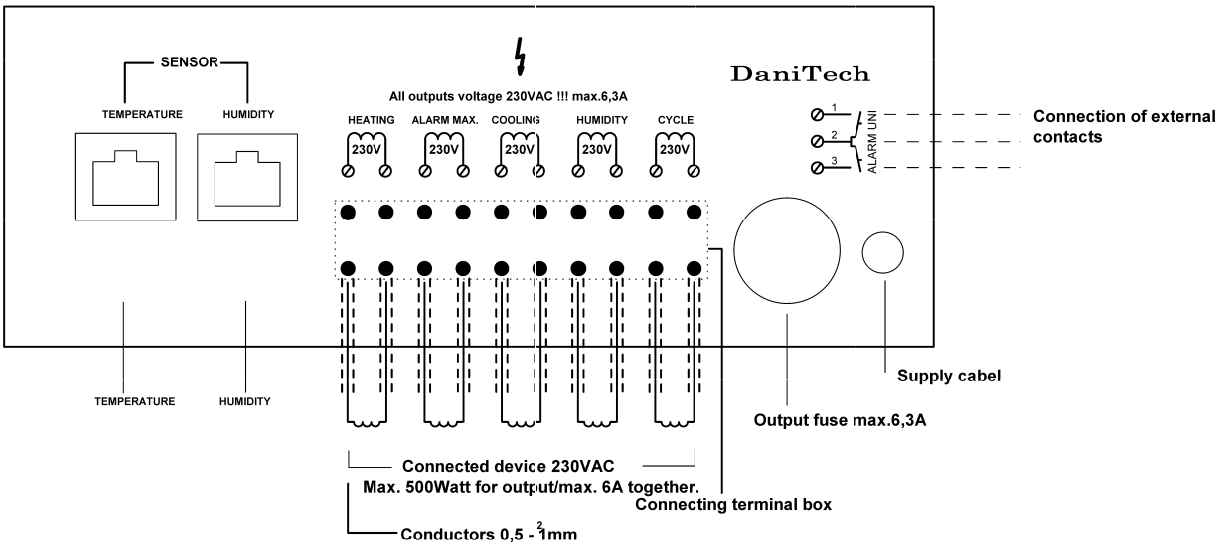
Function PWM



FUNCTION PWM - example if the values are set as in the description

Value in % can be set by the user from 0 to 100% - step 10%

Rear panel



Version PWM - output heating - max 250Watt!!!!

Output voltage 230VAC !!!!! Attention!

- Only authorized personnel is allowed to connect the device!!!

Warning:

- Function GSM alarm is off by default!
- Switch on GSM alarm, only after setting of alarm values (min,max,etc.)
- You avoid undesired sending of useless SMS.
- Before sudden (desired) change of values (e.g. opening of controlled area), it is necessary to stop the function GSM alarm manually (button GSM-PAUSE)
- Before shut down (non using) of the device, it is necessary to switch off the function GSM alarm in the menu!!!
- Under the long term shut down, it is necessary to activate device in order to charge accumulator!! For approximately 24 hours
- Use only in the area with sufficient coverage of GSM signal of given operator!!!
- Insert SIM card with PIN CODE in OFF state!!!!! (firstly, it must be switched off in the cell phone.)
- Service CLIP must be activated on the SIM card, otherwise the device shall not react on ringing.
- As far as the device indicates battery charging, GSM function is not active!!! (Charg.Batt)

Recommendation:

- In order to guarantee reliability of the operation, change accumulator every 24 months.

Example of the printout on the cell phone:

Error message always in the beginning with capital letters.

Cell phone:

ThermoHygrostat-GSM reports:

RESTORATION OF EL.POWER!
Current values:
Tep.:30,0C
Hum.:70%
Time: 10:00:00
El.power:OK
Fuse:OK
Battery:80%

Cell phone:

ThermoHygrostat-GSM reports:

ACTIVE ALARM UNI1!
ACTIVE ALARM UNI2!
Time: 10:00:00

Printout of alarms UNI1 and UNI2 on the cell phone.

Alarm UNI 1 and 2.

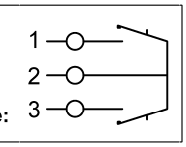
Universal alarm defined by the user.

Activated input UNI1-
(by connection of clamp 1 and 2)

Activated input UNI2-
(by connection of clamp 2 and 3)

Connection of clamps 1,2 and 3 only isolated contact (relay)

Example:



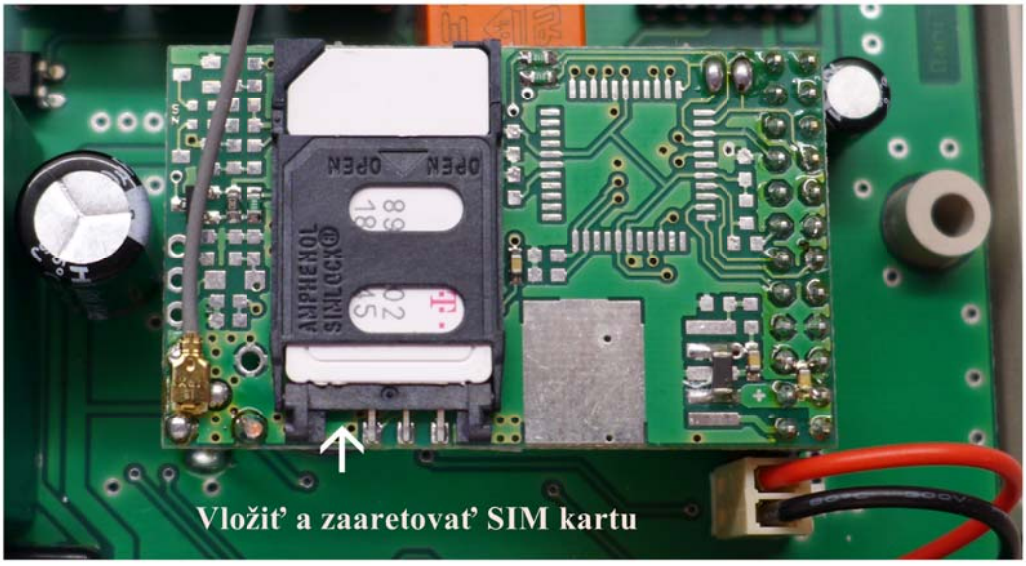
Insertion/Change the SIM card:

- Only SIM card with pin code in OFF state!!!

- Change SIM, only when the device is disconnected from el.power!!!

1 - Open the device.

2 - Insert SIM card.

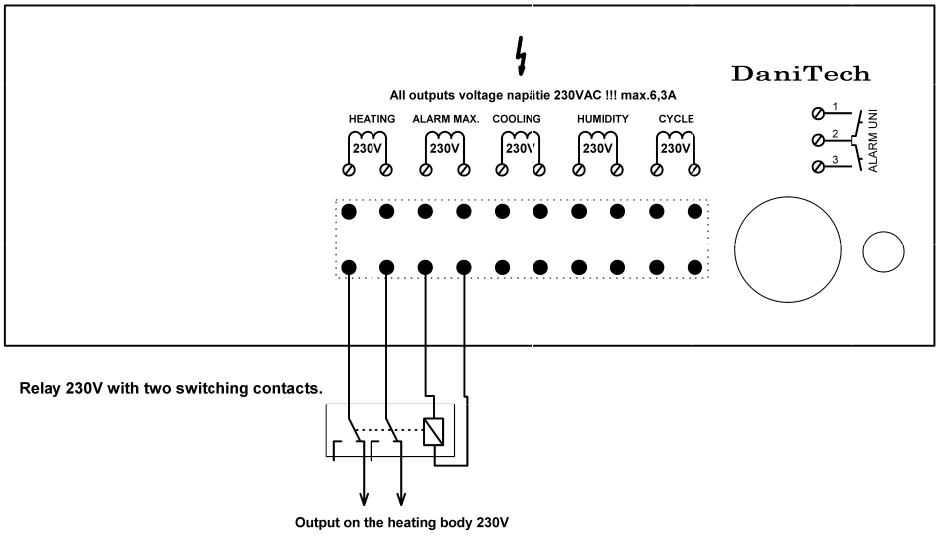


Insert and fix SIM card

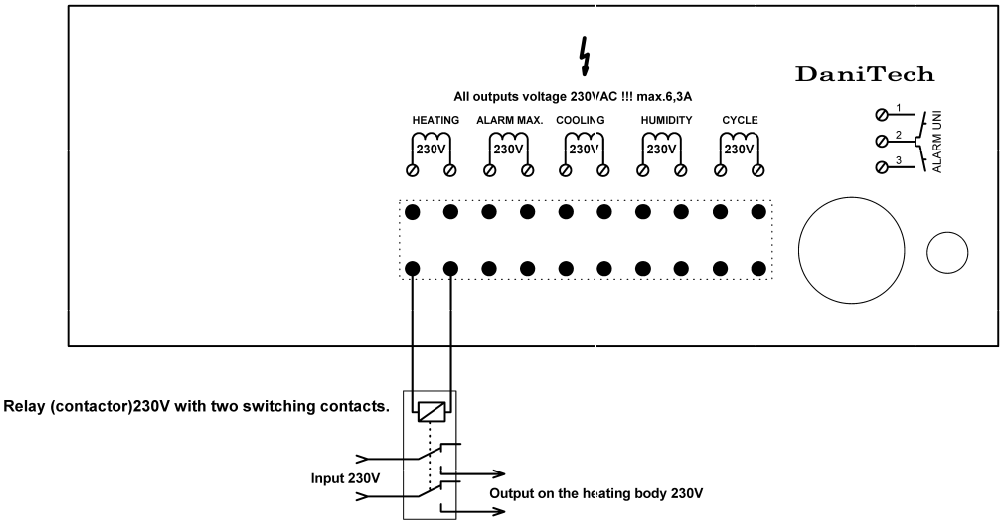
3 - Close the device the same way, just the opposite order.

Recommendation - possibilities:

Connection with external relay for the function ALARM.MAX



Connection with external additional power relay for high power.



Model PWM - only SSR relay !!!