

RDC Charger

User manual



Robotina test d.o.o.

OIC-Hrpelje 38 Hrpelje
SI-6240 Kozina
Slovenia

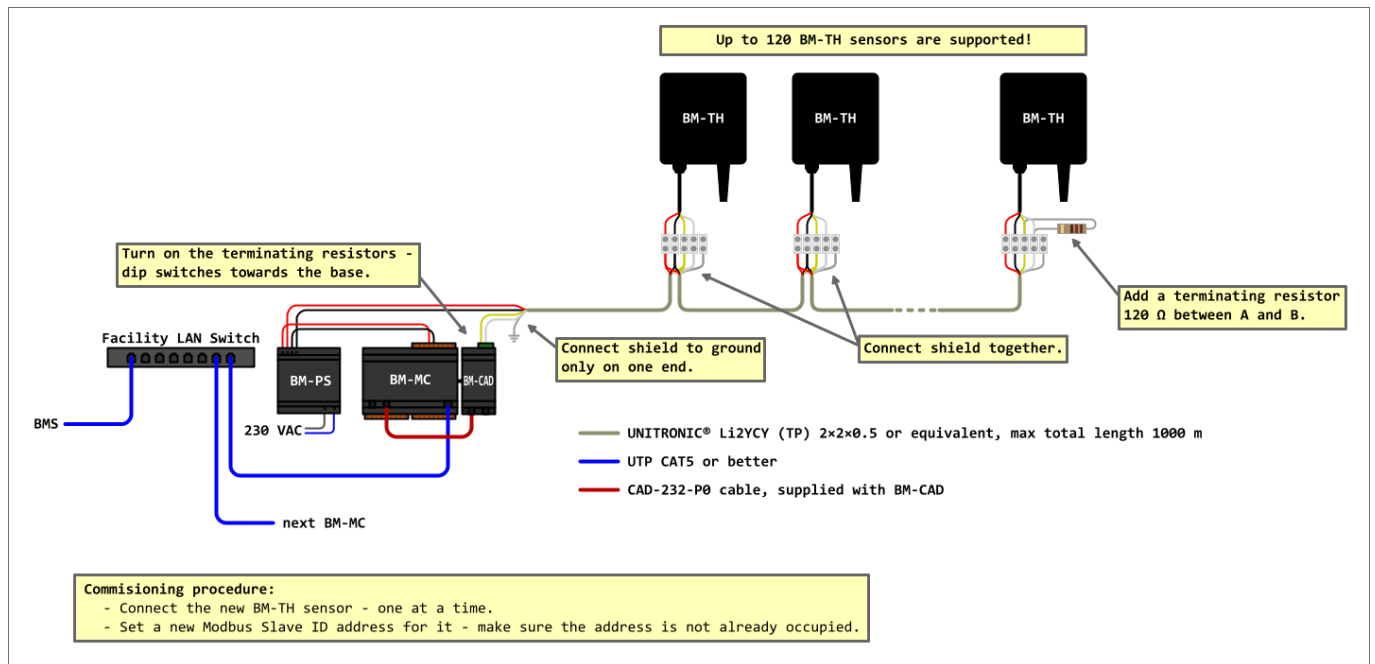
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Temperature and humidity monitoring

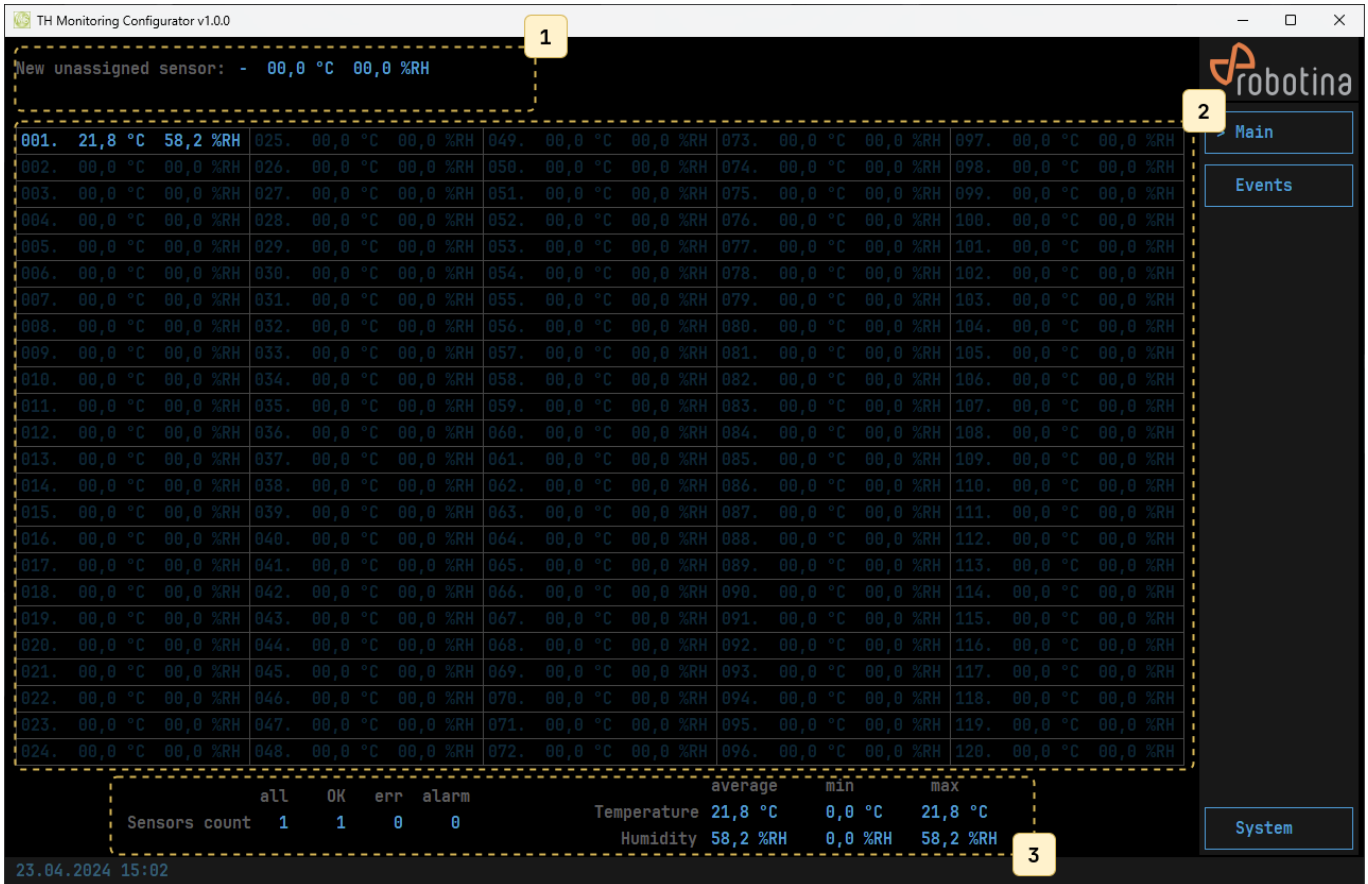
The system is intended for monitoring temperatures and relative humidity in rack cabinets of data centers. Allows connection of up to 120 sensors to one controller. The number of controllers per system is practically unlimited.

HW and wiring

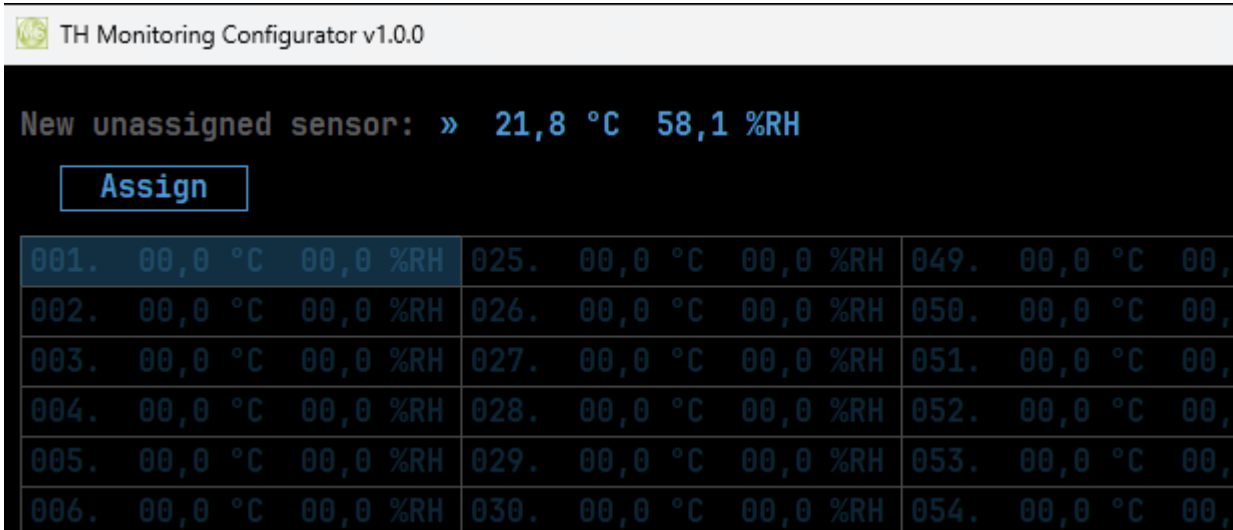


SW (TH-MC & Configurator)

Main page



- 1 New sensor
- 2 Sensor table - Select empty single cell to Assign new sensor to cell or select assigned cer to un-assign (only if new sensor is empty)
- 3 Statistics of all sensors.



Press [Assign] to assign new sensor to selected cell 001.

Press [Unassign] to move selected

TH Monitoring Configurator v1.0.0

New unassigned sensor: - 00,0 °C 00,0 %RH

Unassign

| | | | | | | | | |
|------|---------|----------|------|---------|----------|------|---------|----------|
| 001. | 21,8 °C | 58,1 %RH | 025. | 00,0 °C | 00,0 %RH | 049. | 00,0 °C | 00,0 %RH |
| 002. | 00,0 °C | 00,0 %RH | 026. | 00,0 °C | 00,0 %RH | 050. | 00,0 °C | 00,0 %RH |
| 003. | 00,0 °C | 00,0 %RH | 027. | 00,0 °C | 00,0 %RH | 051. | 00,0 °C | 00,0 %RH |
| 004. | 00,0 °C | 00,0 %RH | 028. | 00,0 °C | 00,0 %RH | 052. | 00,0 °C | 00,0 %RH |
| 005. | 00,0 °C | 00,0 %RH | 029. | 00,0 °C | 00,0 %RH | 053. | 00,0 °C | 00,0 %RH |
| 006. | 00,0 °C | 00,0 %RH | 030. | 00,0 °C | 00,0 %RH | 054. | 00,0 °C | 00,0 %RH |

sensor 001 to New sensor.

TH Monitoring Configurator v1.0.0

New unassigned sensor: - 00,0 °C 00,0 %RH

Unassign **Clear alarm**

| | | | | | | | | |
|------|-----------|----------|------|---------|----------|------|---------|----------|
| 001. | ▲ 21,8 °C | 58,1 %RH | 025. | 00,0 °C | 00,0 %RH | 049. | 00,0 °C | 00,0 %RH |
| 002. | 00,0 °C | 00,0 %RH | 026. | 00,0 °C | 00,0 %RH | 050. | 00,0 °C | 00,0 %RH |
| 003. | 00,0 °C | 00,0 %RH | 027. | 00,0 °C | 00,0 %RH | 051. | 00,0 °C | 00,0 %RH |
| 004. | 00,0 °C | 00,0 %RH | 028. | 00,0 °C | 00,0 %RH | 052. | 00,0 °C | 00,0 %RH |
| 005. | 00,0 °C | 00,0 %RH | 029. | 00,0 °C | 00,0 %RH | 053. | 00,0 °C | 00,0 %RH |
| 006. | 00,0 °C | 00,0 %RH | 030. | 00,0 °C | 00,0 %RH | 054. | 00,0 °C | 00,0 %RH |

Press [Clear Alarms] to clear alarms from selected cell.

Multiple cells can be selected.

TH Monitoring Configurator v1.0.0

New unassigned sensor: - 00,0 °C 00,0 %RH

Clear error

| | | | | | | | | |
|------|-----------|----------|------|---------|----------|------|---------|----------|
| 001. | ▲ 21,8 °C | 58,1 %RH | 025. | 00,0 °C | 00,0 %RH | 049. | 00,0 °C | 00,0 %RH |
| 002. | 00,0 °C | 00,0 %RH | 026. | 00,0 °C | 00,0 %RH | 050. | 00,0 °C | 00,0 %RH |
| 003. | 00,0 °C | 00,0 %RH | 027. | 00,0 °C | 00,0 %RH | 051. | 00,0 °C | 00,0 %RH |
| 004. | 00,0 °C | 00,0 %RH | 028. | 00,0 °C | 00,0 %RH | 052. | 00,0 °C | 00,0 %RH |
| 005. | 00,0 °C | 00,0 %RH | 029. | 00,0 °C | 00,0 %RH | 053. | 00,0 °C | 00,0 %RH |
| 006. | 00,0 °C | 00,0 %RH | 030. | 00,0 °C | 00,0 %RH | 054. | 00,0 °C | 00,0 %RH |

Press [Clear error] to clear errors from selected cell.

Multi

ple
cells
can
be
selec
ted.

Events list

MC put all events (sensors move and alarms) in FIFO list (100 events in total). On Configurator page Events last 25 events are shown.

The screenshot shows the 'TH Monitoring Configurator v1.0.0' window. On the left, there is a table titled 'Events' with columns for date, time, event, and data. The table lists 25 events, including system resets, temperature and humidity alarms, and sensor movements. On the right, there is a legend explaining the event codes (e.g., yyyy for year, mm for month, etc.). Below the legend, there is a list of events with their corresponding codes and descriptions. At the bottom of the window, there is a 'cClear' button and a 'System' button. The status bar at the bottom left shows the date and time: '12.04.2024 10:13'.

| date | time | event | data |
|----------|------------|-----------|------------|
| yyyymmdd | hhmmss.ddd | eeeeeeiii | vvvvvvvvvv |
| 20240412 | 101314.153 | 004006001 | 0000000648 |
| 20240412 | 100711.714 | 004005001 | 0000000649 |
| 20240412 | 100634.094 | 004010000 | 0000000001 |
| 20240412 | 100549.343 | 004010001 | 0000000000 |
| 20240412 | 100025.932 | 004010000 | 0000000001 |
| 20240412 | 100019.812 | 004010002 | 0000000000 |
| 20240412 | 100006.984 | 004010000 | 0000000002 |
| 20240412 | 100000.281 | 004010001 | 0000000000 |
| 20240412 | 095854.000 | 001001000 | 0000000010 |
| 20240412 | 095847.000 | 001001000 | 0000000009 |
| 20240412 | 095252.000 | 001001000 | 0000000008 |
| 20240412 | 094955.000 | 001001000 | 0000000007 |
| 20240411 | 132810.000 | 001001000 | 0000000006 |
| 20240411 | 130706.135 | 004008001 | 0000000645 |
| 20240411 | 130706.135 | 004006001 | 0000000645 |
| 20240411 | 130706.135 | 004004001 | 0000000227 |
| 20240411 | 130706.135 | 004002001 | 0000000227 |
| 20240411 | 130647.082 | 004007001 | 0000000645 |
| 20240411 | 130640.732 | 004005001 | 0000000645 |
| 20240411 | 130640.732 | 004003001 | 0000000227 |
| 20240411 | 130615.332 | 004001001 | 0000000227 |
| 20240411 | 130511.600 | 004010005 | 0000000001 |
| 20240411 | 130342.248 | 004010000 | 0000000005 |
| 20240411 | 130335.979 | 004010001 | 0000000000 |
| 20240411 | 130253.618 | 004010000 | 0000000001 |

Legend:

- yyyy year
- mm month
- dd date
- hh hour
- mm minute
- ss second
- ddd milisecond
- eeeee event (001xxx=general, 004xxx=TH)
- iii sensor index (0..120)
- vvvvvvvvv value

Events:

- eeeeee iii vvvvvvvvv
- 001001 000 reset_cnt system reset
- 001002 000 0 events array cleared
- 004001 iii temperature Temperature HI alarm triggered
- 004002 iii temperature Temperature HI alarm gone
- 004003 iii temperature Temperature LO alarm triggered
- 004004 iii temperature Temperature LO alarm gone
- 004005 iii humidity Humidity HI alarm triggered
- 004006 iii humidity Humidity HI alarm gone
- 004007 iii humidity Humidity LO alarm triggered
- 004008 iii humidity Humidity LO alarm gone
- 004010 iii new_index Sensor moved

System

System overview and settings.

TH Monitoring Configurator v1.0.0

robotina

Main

Events

> System

23.04.2024 15:16

1 System
Cybro-3 SN 20031
TH monitoring v1.0.0
Kernel v3.2.3
IP: 192.168.69.164
autodetect

2 Real Time Clock
23.04.2024 tue 15:16:34 x ✓

3 Permanent memory
init save read
parameters saved

4 Alarm settings
Temperature HI alarm: 0,0 °C clear: 0,0 °C
Temperature LO alarm: 0,0 °C clear: 0,0 °C
Humidity HI alarm: 0,0 %RH clear: 0,0 %RH
Humidity LO alarm: 0,0 %RH clear: 0,0 %RH

| | |
|----------|--|
| 1 | System settings: - MC serial number - SW version - MC Kernel version - MC IP |
| 2 | MC RTC Important for event logger |
| 3 | Permanent memory management: Alarm settings are stored to permanent (EEPROM) memory |
| 4 | Alarm settings Set to 0 to disable alarm or alarm clear functionality. |