

**MARK PINTHERM INFRA HE CONNECT**

0664048

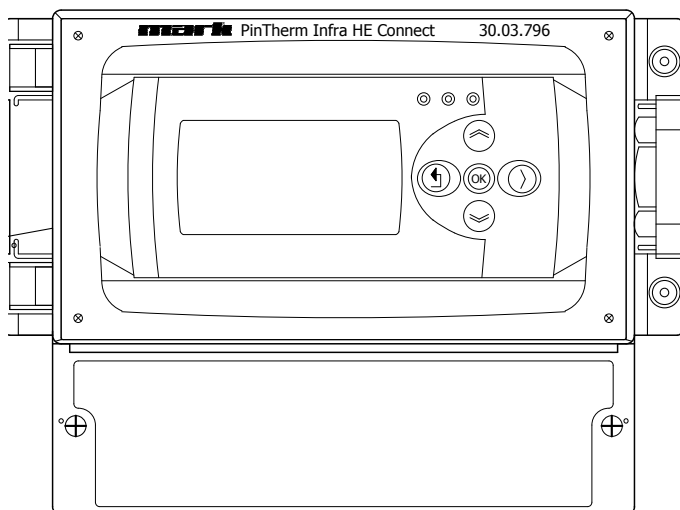
Technical manual **EN**

Technisches Handbuch **DE**

Livret technique **FR**

Technisch boek **NL**

Manuel tehnic **RO**





# Read through this document before you begin installation and commissioning

## Warning!

Incorrect installation, adjustment, alteration, repair or maintenance work may lead to material damage or injury. All work must be carried out by certified, qualified professionals. If the appliance is not positioned in accordance with the instructions, the warranty shall be rendered void. This appliance is not intended for use by children or persons with a physical, sensory or mental handicap, or who lack the required experience or expertise, unless they are supervised or have been instructed in the use of the appliance by somebody who is responsible for their safety. Children must be supervised to ensure that they do not play with the appliance.

## 1.0 General

### 1.1 Subject to modification

The manufacturer is continuously striving to improve its products and reserves the right to make changes in the specifications without prior notice. The technical details are assumed to be correct, but do not form the basis for a contract or guarantee. All orders are accepted on the standard terms of our general conditions of sale and delivery (available on request). The information in this document is subject to change without notice. The most recent version of this manual is always available at [www.markclimate.com/downloads](http://www.markclimate.com/downloads).

### 1.2 General warnings

Installation must meet the current local and/or national regulations. The Pintherm Infra HE Connect must therefore be installed by a competent and qualified fitter, in compliance with the national and international legislation. In the event of faulty installation, calibration, modification, maintenance or repair, the guarantee shall cease to apply.

## 2.0 Technical specifications

### 2.1 Technical details Pintherm Infra HE Connect

- Delivery: Control panel with external display
- Dimensions (wxhxd): 376 x 300 x 120mm
- Protection class: IP54
- Mounting of switchbox: built-on / wall mounting
- Number of Infra HE: 8
- Temperature range: 2...40°C per 0,5°C.
- Operating options: Auto, continuous day, continuous night or continuous off
- Day-/night temperature monitoring with reading of the actual room temperature on the display
- Automatic switching between summer/winter time
- Control: modulating
- Time switch with week program (7 switch blocks)
- Overtime timer: 0-180 min. per zone
- Signaling of burner malfunction

- Reset option to release a burner malfunction per zone
- PIN security to modify for example switching times and temperatures
- Languages: English, French, German and Dutch
- Calibration temperature sensor: range from -3°C to +3°C per 0,5°C
- Power: 230Vac / 50Hz
- Fuse: 10A
- Modbus TCP/IP
- Embedded webserver

### 2.2 Technical details for external globe sensor

- Type name : RSTF NTC 10K 3435
- Article code : 06 29 002
- Resistance : NTC 10K 3435
- Dimensions (wxhxd) : 85 x 85 x 27mm (40 mm incl. height external globe sensor)
- Weight : 42 gram
- Electrical connection : 0.14-1.5mm<sup>2</sup>
- Degree of protection : IP30

### 2.3 External globe sensor resistance table

| NTC 10K 3435 |        |     |        |
|--------------|--------|-----|--------|
| °C           | kΩ     | °C  | kΩ     |
| -25          | 86,180 | +10 | 17,950 |
| -20          | 67,640 | +15 | 14,680 |
| -15          | 53,310 | +20 | 12,090 |
| -10          | 42,390 | +25 | 10,000 |
| -5           | 33,850 | +30 | 8,314  |
| 0            | 27,250 | +35 | 6,941  |
| +5           | 22,030 | +40 | 5,829  |

### 2.4 Factory settings Pintherm Infra HE Connect

- Menu code : 1000
- Switching times : Block 1 MA, DI, WO, DO, VR 08:00-17:00 hrs  
Block 2-7 off
- Room temperature : Day-time temperature 18°C  
Night-time temperature 08°C
- Calibration : +0.0

## 3.0 Installation

### 3.1 Mounting PinTherm Infra HE Connect

Determine a suitable place for installing the PinTherm Infra HE Connect. Mount the PinTherm Infra HE Connect on a solid surface that can carry a minimum of 4 kg. We recommend mounting the PinTherm Infra HE Connect at a height of  $\pm 1.5$  m from the floor, at a well-reachable place.

For cable gland use only cable glands fitted with strain relief, with a minimum fire class of UL94V2. Check that the power supply has been switched off before connecting any wiring. If this is not the case, the power supply must be switched off before you continue. When switching off the power supply of the appliance to which connection is to be made, you should also refer to the technical documentation/operating instructions for the appliance in question.

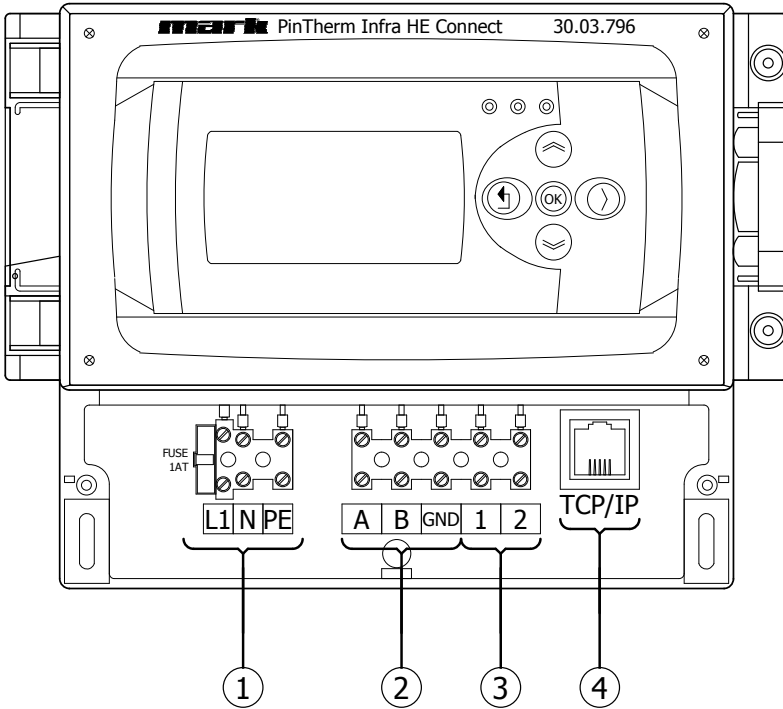
Connect the PinTherm Infra Connect according to one of the electrical diagrams provided at the back of this technical manual.

| Diameter           | Length    |
|--------------------|-----------|
| 0.8mm <sup>2</sup> | 80 meter  |
| 1.0mm <sup>2</sup> | 100 meter |
| 1.5mm <sup>2</sup> | 150 meter |



Use a shielded data cable for this.  
See technical book of the Infra HE.

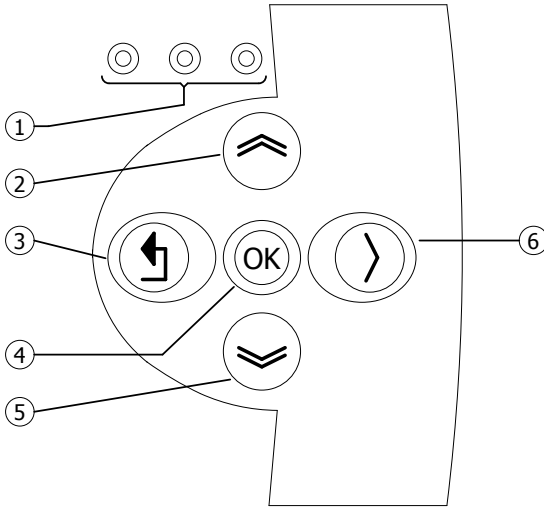
### 3.2 Connection options



|   |                       |
|---|-----------------------|
| 1 | Supply 1~230V +N +PE  |
| 2 | Infra HE (Modbus)     |
| 3 | External globe sensor |
| 4 | TCP/IP                |








## 4.0 Operation and display

### 4.1 Operation



|   |   |
|---|---|
| 1 | <ul style="list-style-type: none"><li>• LED red = malfunction</li><li>• LED green = in operation</li></ul>  |
| 2 | <ul style="list-style-type: none"><li>• Scroll up</li><li>• Return to last page</li><li>• Increase value / edit setting</li><li>• Go to next</li></ul>  |
| 3 | <ul style="list-style-type: none"><li>• Exit menu page / go back to last menu</li><li>• Move cursor to the left in edit mode</li><li>• (Press and hold) Leave editing mode without making changes</li></ul>             |
| 4 | <ul style="list-style-type: none"><li>• Go to next level/menu/edit mode (open folder, subfolder, parameter setting)</li><li>• Open and confirm setting/parameter setting</li><li>• Confirm the change/setting</li></ul> |
| 5 | <ul style="list-style-type: none"><li>• Scroll down</li><li>• Go to next page</li><li>• Decrease value / edit setting</li><li>• Go to last</li></ul>  |
| 6 | <ul style="list-style-type: none"><li>• Move cursor to the right in edit mode</li></ul>   |

## 4.2 Menu structure

|   |                 |   |   |         |                |        |                |               |          |         |               |  |       |               |  |  |   |     |       |  |         |                |       |               |  |          |               |  |   |               |      |  |  |  |     |       |         |         |                |       |  |  |          |         |  |  |       |      |  |  |
|---|-----------------|---|---|---------|----------------|--------|----------------|---------------|----------|---------|---------------|--|-------|---------------|--|--|---|-----|-------|--|---------|----------------|-------|---------------|--|----------|---------------|--|---|---------------|------|--|--|--|-----|-------|---------|---------|----------------|-------|--|--|----------|---------|--|--|-------|------|--|--|
|    |                 |   |   |         |                |        |                |               |          |         |               |  |       |               |  |  |   |     |       |  |         |                |       |               |  |          |               |  |   |               |      |  |  |  |     |       |         |         |                |       |  |  |          |         |  |  |       |      |  |  |
| <table border="1" data-bbox="128 295 400 434"> <tr> <td>Mon</td> <td>12:06</td> <td> 21.5 °C</td> <td>18.0 °C</td> </tr> <tr> <td>Operating mode</td> <td>: Day</td> <td colspan="2"></td> </tr> <tr> <td>Overtime</td> <td>: 0 min</td> <td colspan="2"></td> </tr> <tr> <td>Reset</td> <td>: No</td> <td colspan="2"></td> </tr> </table> <p>On: flame<br/>Off: no flame</p> | Mon             | 12:06   |  21.5 °C | 18.0 °C | Operating mode | : Day  |                |               | Overtime | : 0 min |               |  | Reset | : No          |  |  | <table border="1" data-bbox="442 295 703 434"> <tr> <td>Mon</td> <td>12:06</td> <td> °C</td> <td>18.0 °C</td> </tr> <tr> <td>Operating mode</td> <td>: Day</td> <td colspan="2"></td> </tr> <tr> <td>Overtime</td> <td>: 0 min</td> <td colspan="2"></td> </tr> <tr> <td>Reset</td> <td>: No</td> <td colspan="2"></td> </tr> </table> <p>####: No sensor connected.</p> | Mon | 12:06 |  °C | 18.0 °C | Operating mode | : Day |               |  | Overtime | : 0 min       |  |   | Reset         | : No |  |  | <table border="1" data-bbox="744 295 1016 434"> <tr> <td>Mon</td> <td>12:06</td> <td>21.5 °C</td> <td>18.0 °C</td> </tr> <tr> <td>Operating mode</td> <td>: Day</td> <td colspan="2"></td> </tr> <tr> <td>Overtime</td> <td>: 0 min</td> <td colspan="2"></td> </tr> <tr> <td>Reset</td> <td>: No</td> <td colspan="2"></td> </tr> </table> <p>21.5 °C: Measured temperature.<br/>18.0 °C: Setpoint.</p> | Mon | 12:06 | 21.5 °C | 18.0 °C | Operating mode | : Day |  |  | Overtime | : 0 min |  |  | Reset | : No |  |  |
| Mon   | 12:06           |  21.5 °C | 18.0 °C   |         |                |        |                |               |          |         |               |  |       |               |  |  |   |     |       |  |         |                |       |               |  |          |               |  |   |               |      |  |  |  |     |       |         |         |                |       |  |  |          |         |  |  |       |      |  |  |
| Operating mode  | : Day           |   |   |         |                |        |                |               |          |         |               |  |       |               |  |  |   |     |       |  |         |                |       |               |  |          |               |  |   |               |      |  |  |  |     |       |         |         |                |       |  |  |          |         |  |  |       |      |  |  |
| Overtime  | : 0 min         |   |   |         |                |        |                |               |          |         |               |  |       |               |  |  |   |     |       |  |         |                |       |               |  |          |               |  |   |               |      |  |  |  |     |       |         |         |                |       |  |  |          |         |  |  |       |      |  |  |
| Reset   | : No            |   |   |         |                |        |                |               |          |         |               |  |       |               |  |  |   |     |       |  |         |                |       |               |  |          |               |  |   |               |      |  |  |  |     |       |         |         |                |       |  |  |          |         |  |  |       |      |  |  |
| Mon   | 12:06           |  °C      | 18.0 °C   |         |                |        |                |               |          |         |               |  |       |               |  |  |   |     |       |  |         |                |       |               |  |          |               |  |   |               |      |  |  |  |     |       |         |         |                |       |  |  |          |         |  |  |       |      |  |  |
| Operating mode  | : Day           |   |   |         |                |        |                |               |          |         |               |  |       |               |  |  |   |     |       |  |         |                |       |               |  |          |               |  |   |               |      |  |  |  |     |       |         |         |                |       |  |  |          |         |  |  |       |      |  |  |
| Overtime  | : 0 min         |   |   |         |                |        |                |               |          |         |               |  |       |               |  |  |   |     |       |  |         |                |       |               |  |          |               |  |   |               |      |  |  |  |     |       |         |         |                |       |  |  |          |         |  |  |       |      |  |  |
| Reset   | : No            |   |   |         |                |        |                |               |          |         |               |  |       |               |  |  |   |     |       |  |         |                |       |               |  |          |               |  |   |               |      |  |  |  |     |       |         |         |                |       |  |  |          |         |  |  |       |      |  |  |
| Mon   | 12:06           | 21.5 °C   | 18.0 °C   |         |                |        |                |               |          |         |               |  |       |               |  |  |   |     |       |  |         |                |       |               |  |          |               |  |   |               |      |  |  |  |     |       |         |         |                |       |  |  |          |         |  |  |       |      |  |  |
| Operating mode  | : Day           |   |   |         |                |        |                |               |          |         |               |  |       |               |  |  |   |     |       |  |         |                |       |               |  |          |               |  |   |               |      |  |  |  |     |       |         |         |                |       |  |  |          |         |  |  |       |      |  |  |
| Overtime  | : 0 min         |   |   |         |                |        |                |               |          |         |               |  |       |               |  |  |   |     |       |  |         |                |       |               |  |          |               |  |   |               |      |  |  |  |     |       |         |         |                |       |  |  |          |         |  |  |       |      |  |  |
| Reset   | : No            |   |   |         |                |        |                |               |          |         |               |  |       |               |  |  |   |     |       |  |         |                |       |               |  |          |               |  |   |               |      |  |  |  |     |       |         |         |                |       |  |  |          |         |  |  |       |      |  |  |
| <table border="1" data-bbox="128 550 400 689"> <tr> <td>Infra HE status</td> <td></td> <td></td> </tr> <tr> <td>5</td> <td>Malfunction</td> <td>233</td> </tr> <tr> <td>6</td> <td>not connected</td> <td></td> </tr> <tr> <td>7</td> <td>not connected</td> <td></td> </tr> <tr> <td>8</td> <td>not connected</td> <td></td> </tr> </table>  | Infra HE status |   |   | 5       | Malfunction    | 233    | 6              | not connected |          | 7       | not connected |  | 8     | not connected |  | <table border="1" data-bbox="442 550 703 689"> <tr> <td>Infra HE status</td> <td></td> <td></td> </tr> <tr> <td>1</td> <td>On</td> <td>100%</td> </tr> <tr> <td>2</td> <td>not connected</td> <td></td> </tr> <tr> <td>3</td> <td>not connected</td> <td></td> </tr> <tr> <td>4</td> <td>not connected</td> <td></td> </tr> </table> | Infra HE status   |     |       | 1  | On      | 100%           | 2     | not connected |  | 3        | not connected |  | 4 | not connected |      |  |  |  |     |       |         |         |                |       |  |  |          |         |  |  |       |      |  |  |
| Infra HE status   |                 |   |   |         |                |        |                |               |          |         |               |  |       |               |  |  |   |     |       |  |         |                |       |               |  |          |               |  |   |               |      |  |  |  |     |       |         |         |                |       |  |  |          |         |  |  |       |      |  |  |
| 5   | Malfunction     | 233   |   |         |                |        |                |               |          |         |               |  |       |               |  |  |   |     |       |  |         |                |       |               |  |          |               |  |   |               |      |  |  |  |     |       |         |         |                |       |  |  |          |         |  |  |       |      |  |  |
| 6   | not connected   |   |   |         |                |        |                |               |          |         |               |  |       |               |  |  |   |     |       |  |         |                |       |               |  |          |               |  |   |               |      |  |  |  |     |       |         |         |                |       |  |  |          |         |  |  |       |      |  |  |
| 7   | not connected   |   |   |         |                |        |                |               |          |         |               |  |       |               |  |  |   |     |       |  |         |                |       |               |  |          |               |  |   |               |      |  |  |  |     |       |         |         |                |       |  |  |          |         |  |  |       |      |  |  |
| 8   | not connected   |   |   |         |                |        |                |               |          |         |               |  |       |               |  |  |   |     |       |  |         |                |       |               |  |          |               |  |   |               |      |  |  |  |     |       |         |         |                |       |  |  |          |         |  |  |       |      |  |  |
| Infra HE status   |                 |   |   |         |                |        |                |               |          |         |               |  |       |               |  |  |   |     |       |  |         |                |       |               |  |          |               |  |   |               |      |  |  |  |     |       |         |         |                |       |  |  |          |         |  |  |       |      |  |  |
| 1   | On              | 100%  |   |         |                |        |                |               |          |         |               |  |       |               |  |  |   |     |       |  |         |                |       |               |  |          |               |  |   |               |      |  |  |  |     |       |         |         |                |       |  |  |          |         |  |  |       |      |  |  |
| 2   | not connected   |   |   |         |                |        |                |               |          |         |               |  |       |               |  |  |   |     |       |  |         |                |       |               |  |          |               |  |   |               |      |  |  |  |     |       |         |         |                |       |  |  |          |         |  |  |       |      |  |  |
| 3   | not connected   |   |   |         |                |        |                |               |          |         |               |  |       |               |  |  |   |     |       |  |         |                |       |               |  |          |               |  |   |               |      |  |  |  |     |       |         |         |                |       |  |  |          |         |  |  |       |      |  |  |
| 4   | not connected   |   |   |         |                |        |                |               |          |         |               |  |       |               |  |  |   |     |       |  |         |                |       |               |  |          |               |  |   |               |      |  |  |  |     |       |         |         |                |       |  |  |          |         |  |  |       |      |  |  |
| <h3>Status Screen</h3>  |                 |   |   |         |                |        |                |               |          |         |               |  |       |               |  |  |   |     |       |  |         |                |       |               |  |          |               |  |   |               |      |  |  |  |     |       |         |         |                |       |  |  |          |         |  |  |       |      |  |  |
| <table border="1" data-bbox="128 758 400 896"> <tr> <td>Password</td> <td></td> </tr> <tr> <td></td> <td>1000</td> </tr> </table>   | Password        |   |   | 1000    |                |        |                |               |          |         |               |  |       |               |  |  |   |     |       |  |         |                |       |               |  |          |               |  |   |               |      |  |  |  |     |       |         |         |                |       |  |  |          |         |  |  |       |      |  |  |
| Password  |                 |   |   |         |                |        |                |               |          |         |               |  |       |               |  |  |   |     |       |  |         |                |       |               |  |          |               |  |   |               |      |  |  |  |     |       |         |         |                |       |  |  |          |         |  |  |       |      |  |  |
|   | 1000            |   |   |         |                |        |                |               |          |         |               |  |       |               |  |  |   |     |       |  |         |                |       |               |  |          |               |  |   |               |      |  |  |  |     |       |         |         |                |       |  |  |          |         |  |  |       |      |  |  |
| <table border="1" data-bbox="128 933 400 1072"> <tr> <td>Menu</td> <td></td> </tr> <tr> <td>Temperature</td> <td></td> </tr> <tr> <td>Clock program</td> <td></td> </tr> <tr> <td>Operation mode</td> <td></td> </tr> <tr> <td>Location</td> <td></td> </tr> <tr> <td>System Menu</td> <td></td> </tr> </table>   | Menu            |   | Temperature   |         | Clock program  |        | Operation mode |               | Location |         | System Menu   |  |       |               |  |  |   |     |       |  |         |                |       |               |  |          |               |  |   |               |      |  |  |  |     |       |         |         |                |       |  |  |          |         |  |  |       |      |  |  |
| Menu  |                 |   |   |         |                |        |                |               |          |         |               |  |       |               |  |  |   |     |       |  |         |                |       |               |  |          |               |  |   |               |      |  |  |  |     |       |         |         |                |       |  |  |          |         |  |  |       |      |  |  |
| Temperature   |                 |   |   |         |                |        |                |               |          |         |               |  |       |               |  |  |   |     |       |  |         |                |       |               |  |          |               |  |   |               |      |  |  |  |     |       |         |         |                |       |  |  |          |         |  |  |       |      |  |  |
| Clock program   |                 |   |   |         |                |        |                |               |          |         |               |  |       |               |  |  |   |     |       |  |         |                |       |               |  |          |               |  |   |               |      |  |  |  |     |       |         |         |                |       |  |  |          |         |  |  |       |      |  |  |
| Operation mode  |                 |   |   |         |                |        |                |               |          |         |               |  |       |               |  |  |   |     |       |  |         |                |       |               |  |          |               |  |   |               |      |  |  |  |     |       |         |         |                |       |  |  |          |         |  |  |       |      |  |  |
| Location  |                 |   |   |         |                |        |                |               |          |         |               |  |       |               |  |  |   |     |       |  |         |                |       |               |  |          |               |  |   |               |      |  |  |  |     |       |         |         |                |       |  |  |          |         |  |  |       |      |  |  |
| System Menu   |                 |   |   |         |                |        |                |               |          |         |               |  |       |               |  |  |   |     |       |  |         |                |       |               |  |          |               |  |   |               |      |  |  |  |     |       |         |         |                |       |  |  |          |         |  |  |       |      |  |  |
| <table border="1" data-bbox="128 1109 400 1248"> <tr> <td>Temperature</td> <td></td> </tr> <tr> <td>Day:</td> <td>18.0 °C</td> </tr> <tr> <td>Night:</td> <td>8.0 °C</td> </tr> <tr> <td>Calibration:</td> <td>0 °C</td> </tr> </table>   | Temperature     |   | Day:  | 18.0 °C | Night:         | 8.0 °C | Calibration:   | 0 °C          |          |         |               |  |       |               |  |  |   |     |       |  |         |                |       |               |  |          |               |  |   |               |      |  |  |  |     |       |         |         |                |       |  |  |          |         |  |  |       |      |  |  |
| Temperature   |                 |   |   |         |                |        |                |               |          |         |               |  |       |               |  |  |   |     |       |  |         |                |       |               |  |          |               |  |   |               |      |  |  |  |     |       |         |         |                |       |  |  |          |         |  |  |       |      |  |  |
| Day:  | 18.0 °C         |   |   |         |                |        |                |               |          |         |               |  |       |               |  |  |   |     |       |  |         |                |       |               |  |          |               |  |   |               |      |  |  |  |     |       |         |         |                |       |  |  |          |         |  |  |       |      |  |  |
| Night:  | 8.0 °C          |   |   |         |                |        |                |               |          |         |               |  |       |               |  |  |   |     |       |  |         |                |       |               |  |          |               |  |   |               |      |  |  |  |     |       |         |         |                |       |  |  |          |         |  |  |       |      |  |  |
| Calibration:  | 0 °C            |   |   |         |                |        |                |               |          |         |               |  |       |               |  |  |   |     |       |  |         |                |       |               |  |          |               |  |   |               |      |  |  |  |     |       |         |         |                |       |  |  |          |         |  |  |       |      |  |  |
| <p>Set the desired day temperature, night temperature and calibration.</p>  |                 |   |   |         |                |        |                |               |          |         |               |  |       |               |  |  |   |     |       |  |         |                |       |               |  |          |               |  |   |               |      |  |  |  |     |       |         |         |                |       |  |  |          |         |  |  |       |      |  |  |



|                                     |                                     |                                     |                                     |                                     |                          |                          |
|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|--------------------------|--------------------------|
| Clock program                       |                                     |                                     |                                     |                                     |                          |                          |
| Mo                                  | Tu                                  | We                                  | Th                                  | Fr                                  | Sa                       | Su                       |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Start                               |                                     | Stop                                |                                     |                                     |                          |                          |
| 8 : 00                              |                                     | 17 : 00                             |                                     |                                     |                          |                          |
| Block 1                             |                                     | Save : No                           |                                     |                                     |                          |                          |

**Clock program**

Setting the time program: Time blocks in which the controller must switch to daytime temperature. Possibility to program 7 program blocks. The days of the week and the start and end times must be selected for each block.

|                |      |
|----------------|------|
| Operating mode |      |
| mode :         | auto |

**Operating mode**

Set-up for operating mode for each zone

- auto (clock program will be followed),
- continuous day,
- continuous night,
- out

|          |  |
|----------|--|
| Location |  |
| zone 1   |  |

**Location**

Each location can be given its own name, set by default: zone 1

**4.3 System menu**

|                  |  |
|------------------|--|
| System menu      |  |
| Date / Time      |  |
| Language         |  |
| IP address       |  |
| Change Password  |  |
| Minimum on time  |  |
| Software Version |  |


**System menu**

In this menu the date/time, language, IP address and password can be changed.  
The software version can be requested.

|              |              |
|--------------|--------------|
| Date / Time  |              |
| 19 / 07 / 21 | 14 : 15 : 55 |
| 25 / 07 / 18 | 0 : 00 : 00  |
| Mon          |              |
| Save : No    |              |

### Date/time

Set-up of actual date and time.

|  |
|--|
| Language   |
| 1 - English  |
| 2 - Nederlands   |
| 3 - Français   |
| 4 - Deutsch  |
| Language  |

### Language


Set-up for desired language (English, Nederlands, Français, Deutsch).

|            |                 |
|------------|-----------------|
| IP address |                 |
| IP         | 192. 168. 1.100 |
| Sub        | 255.255.255. 0  |
| Save : No  |                 |

### IP address

Set-up IP-address and Subnetmask

*Note: After saving the IP address the controller will restart.*

|   |
|---|
| Change password   |
|  |

### Change password

Set-up for changing the password to get access to the menu or to the webpage (standard password is: 1000).

|                 |         |
|-----------------|---------|
| Minimum on time |         |
| Time            | : 20min |

### Minimum activation time

At the startup, the device will operate for a minimum period in operation position high. Factory setting: 20 minutes.




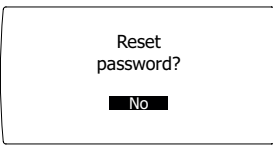
Software Version

1 . 0

#### Software version

The actual software version.

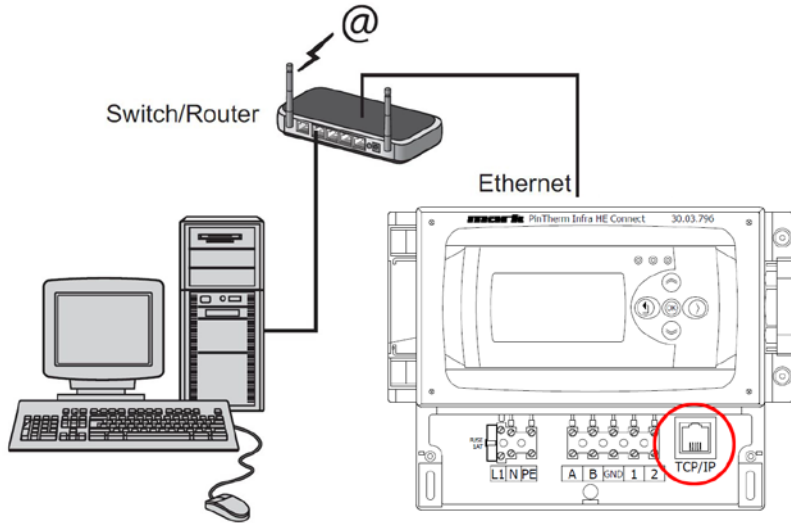
#### 4.4 Reset password to factory setting

|  |  |
|--|--|
| 1 To reset the password to the factory setting, first remove the power from the thermostat and then put it back on.                                    |  |
| 2 In the opening screen, press  for 2 seconds                         |  |
| 3 The "Reset Password" screen is displayed. Select "Yes" and press  . |  |
| The password has been reset to factory setting. It returns to the basic screen.  |  |

#### 4.5 Operation with a computer

The unit can be operated using a PC or laptop.

Connect your PC or laptop by means of an Ethernet jack on the display.



Once you have connected both, start your internet browser\* and enter the IP address (Default address: 192.168.1.100).

When you have a connection a log in screen will appear.  
Enter the username and password.

User name: user  
Password: 1000 (factory setting)\*\*

When the log in details have been correctly entered a tab with status/settings will appear in your browser. Through the tabs at the top of the page the desired language can be chosen or a menu can be opened to view or change the clock programm on screen.

\* The factory advises Google Chrome or Mozilla Firefox.

\*\* In case you have changed the password through the display of the Pintherm Infra HE Connect (menu/system menu/change password) you must enter the changed password.

### 4.5.1 Dashboard

| mark           |                       |               |
|----------------|-----------------------|---------------|
| Dashboard      |                       |               |
| Location       | Zone 1                |               |
| Operating mode | Day                   | Clock(Auto) ▼ |
| Temperature    | 22.7                  | °C            |
| Setpoint       | 18.0                  | °C            |
| Over time      | 0                     | min. ▼        |
| Heat demand    | <input type="radio"/> |               |
| Fault status   | <input type="radio"/> |               |

### 4.5.2 Status menu

| mark       |               |  |
|------------|---------------|--|
| Status     |               |  |
| Infra HE 1 | Off           |  |
| Infra HE 2 | not connected |  |
| Infra HE 3 | not connected |  |
| Infra HE 4 | not connected |  |

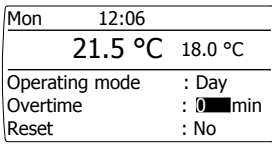
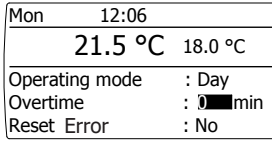


### 4.5.3 Temperature menu

| mark                 |      |    |
|----------------------|------|----|
| Temperature          |      |    |
| Temperature settings |      |    |
| Temperature          |      |    |
| Day temperature      | 18.0 | °C |
| Night temperature    | 8.0  | °C |
| Calibration          |      |    |
| Offset               | 0    | K  |

### 4.5.4 Clock programm

| mark  |  |  |  |  |
|---|--|--|--|--|
| Program   |  |  |  |  |
| Program settings  |  |  |  |  |
| <b>Program 1</b><br><input checked="" type="checkbox"/> Monday<br><input checked="" type="checkbox"/> Tuesday<br><input checked="" type="checkbox"/> Wednesday<br><input checked="" type="checkbox"/> Thursday<br><input checked="" type="checkbox"/> Friday<br><input type="checkbox"/> Saturday<br><input type="checkbox"/> Sunday<br><br>Start<br>08 : 00<br>Stop<br>17 : 00 | <b>Program 2</b><br><input type="checkbox"/> Monday<br><input type="checkbox"/> Tuesday<br><input type="checkbox"/> Wednesday<br><input type="checkbox"/> Thursday<br><input type="checkbox"/> Friday<br><input type="checkbox"/> Saturday<br><input type="checkbox"/> Sunday<br><br>Start<br>08 : 00<br>Stop<br>17 : 00 | <b>Program 3</b><br><input type="checkbox"/> Monday<br><input type="checkbox"/> Tuesday<br><input type="checkbox"/> Wednesday<br><input type="checkbox"/> Thursday<br><input type="checkbox"/> Friday<br><input type="checkbox"/> Saturday<br><input type="checkbox"/> Sunday<br><br>Start<br>08 : 00<br>Stop<br>17 : 00 | <b>Program 4</b><br><input type="checkbox"/> Monday<br><input type="checkbox"/> Tuesday<br><input type="checkbox"/> Wednesday<br><input type="checkbox"/> Thursday<br><input type="checkbox"/> Friday<br><input type="checkbox"/> Saturday<br><input type="checkbox"/> Sunday<br><br>Start<br>08 : 00<br>Stop<br>17 : 00 |  |

## 5.0 Malfunctions

| Image   | Alert                   | Where            | Meaning   |
|---|-------------------------|------------------|---|
|   | #####°C                 | Display          | No sensor connected.  |
|   | Reset error: No         | Display          | An Infra has a fault. Through the display it can be seen in which zone. |
|  | The right LED burns red | Display          | An Infra has a fault. Through the display it can be seen in which zone. |
|  | ----- °C                | Internet-browser | No sensor connected.  |

## 6.0 Discarding

Whenever the Pintherm Infra HE Connect is replaced or removed, it should be recycled or scrapped in accordance with national regulations and/or local by-laws.

## 7.0 Attachments

- [1] Modbus-list
- [2] - [6] Electrical diagrams

# Lesen Sie dieses Dokument sorgfältig durch, bevor Sie das Gerät installieren

## Warnhinweis!

Fehlerhaft durchgeführte Installationen, Einstellungen, Änderungen, Reparaturen oder Wartungsmaßnahmen können zu Sachschäden und Verletzungen führen. Alle Arbeiten müssen von geprüften, qualifizierten Fachleuten durchgeführt werden. Falls das Gerät nicht vorschriftsgemäß aufgestellt wird, erlischt die Garantie.

Dieses Gerät ist nicht für den Gebrauch durch Personen (einschließlich Kindern) mit verminderter körperlicher, Sinnes- oder geistiger Leistungsfähigkeit oder mangelnder Erfahrung und mangelnden Kenntnissen bestimmt, sofern sie nicht unter Aufsicht stehen oder durch eine Person, die für ihre Sicherheit verantwortlich ist, im Gebrauch des Geräts angeleitet werden. Kinder müssen vom Gerät ferngehalten werden.

## 1.0 Allgemeines

### 1.1 Änderungen vorbehalten

Der Hersteller strebt eine kontinuierliche Verbesserung der Produkte an und behält sich das Recht vor, ohne vorherige Mitteilung Änderungen an den technischen Daten vorzunehmen. Die technischen Angaben werden als korrekt angenommen, bilden aber keine Grundlage für einen Vertrag oder Gewährleistungsansprüche. Sämtliche Bestellungen werden unter den Standardbedingungen unserer allgemeinen Verkaufs- und Lieferbedingungen (auf Anfrage erhältlich) entgegengenommen. Die Informationen in diesem Dokument können sich ohne vorherige Ankündigung ändern. Die neueste Version dieses Handbuches finden Sie immer auf unserer Internetseite unter [www.mark.de/downloads](http://www.mark.de/downloads).

### 1.2 Allgemeine Warnhinweise

Die Installation muss den geltenden landesweiten und örtlichen Bestimmungen entsprechen. Lassen Sie die Pintherm INFRA HE Connect daher nur von fachkundigen und qualifizierten Installateuren unter Berücksichtigung der nationalen und internationalen Vorschriften installieren. Im Falle einer unsachgemäßen Installation, Feinabstimmung, Änderung, Wartung oder Instandsetzung erlischt die Gewährleistung.

## 2.0 Technische Daten

### 2.1 Technische Daten Pintherm Infra HE Connect

- Lieferung: Schaltkasten mit externem Display
- Abmessung ext. Display (BxHxT): 376 x 300 x 120mm
- Schutzklasse: IP54
- Montage Display: Einbau / Wandmontage
- maximale Anzahl INFRA HE: 8
- Bereich der Temperatureinstellung: 2 bis 40°C in 0,5°C Schritten
- Betriebsmodus: automatisch, kontinuierlich bei Tag, kontinuierlich bei Nacht oder kontinuierlich aus

- Tag-/Nachttemperatur Überwachung mit Anzeige und ablesen der aktuellen Raumtemperatur auf dem Display
- automatische Anpassung der Sommer-/Winterzeit
- Regelung: modulierend
- Schaltuhr mit Wochenprogramm (7 Schaltblöcke)
- Überstundentimer: 0-180 Minuten pro Zone
- Signalisierung einer Brennerstörung pro Zone
- Resetmöglichkeit zur Entriegelung einer Brennerstörung pro Zone
- Sicherheitscode um u.a. die Schaltzeiten und Temperaturen zu verändern
- Sprachen: Englisch, Französisch, Deutsch, Niederländisch
- Justierung Temperaturfühler: regulierbar von -3°C bis +3°C in 0.5°C Schritten
- Stromversorgung: 230Vac / 50Hz
- Interne Sicherung: 10A
- Modbus TCP/IP
- eingebauter Webserver

### 2.2 Technische Daten externer Schwarzkugelfühler

- Typenbezeichnung : RSTF NTC 10K 3435
- Artikelnummer : 06 29 002
- Widerstand : NTC 10K 3435
- Abmessung (BxHxT) : 85 x 85 x 27mm (40 mm inkl. Höhe des Schwarzkugelfühlers)
- Gewicht : 42 gram
- Stromanschluss : 0.14-1.5mm<sup>2</sup>
- Schutzklasse : IP30

### 2.3 Widerstandstabelle (externer) Schwarzkugelfühler

| NTC 10K 3435 |        |     |        |
|--------------|--------|-----|--------|
| °C           | kΩ     | °C  | kΩ     |
| -25          | 86,180 | +10 | 17,950 |
| -20          | 67,640 | +15 | 14,680 |
| -15          | 53,310 | +20 | 12,090 |
| -10          | 42,390 | +25 | 10,000 |
| -5           | 33,850 | +30 | 8,314  |
| 0            | 27,250 | +35 | 6,941  |
| +5           | 22,030 | +40 | 5,829  |

### 2.4 Werkseinstellungen Pintherm Infra HE Connect

- Menücode : 1000
- Schaltzeiten : Block 1 MO, DI, MI, DO, FR 08:00 bis 17:00 Uhr  
Block 2 bis 7 aus
- Raumtemperatur : Tagestemperatur 18°C  
Nachttemperatur 08°C
- Justierung : +0.0



## 3.0 Installation

### 3.1 Montage PinTherm Infra HE Connect

Ermitteln Sie einen geeigneten Ort für die Montage des PinTherm Infra Connect. Montieren Sie den PinTherm Infra Connect auf einer Oberfläche, die mindestens 4kg tragen kann. Es wird empfohlen, die PinTherm Infra Connect auf  $\pm 1,5$  m über dem Fußboden anzubringen, an einem leicht zugänglichen Ort.

Verwenden Sie für die Kabeleinführung nur Kabelverschraubungen mit einer Zugentlastung der Mindestbrandklasse UL94V2. Stellen Sie sicher, dass die Stromversorgung ausgeschaltet ist, bevor Sie ein Kabel anschließen. Sollte dies nicht der Fall sein, muss die Stromversorgung ausgeschaltet werden. Beziehen Sie vor dem Ausschalten der Stromversorgung auf die jeweilige Bedienungsanleitung des Gerätes.

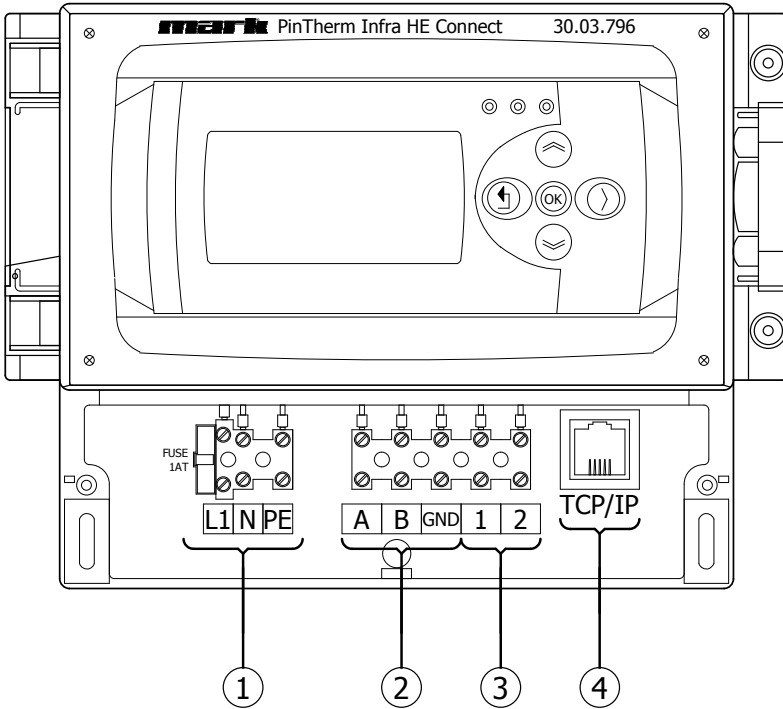
Schließen Sie den PinTherm Connect gemäß einem der mitgelieferten Schaltpläne an. Diese finden Sie auf der Rückseite des technischen Handbuchs. Um das richtige Verbindungsdiagramm auszuwählen, müssen Sie wissen, an welchem Gerätetyp Sie den PinTherm Connect anschließen.

| Durchmesser        | Länge     |
|--------------------|-----------|
| 0.8mm <sup>2</sup> | 80 meter  |
| 1.0mm <sup>2</sup> | 100 meter |
| 1.5mm <sup>2</sup> | 150 meter |



Verwenden Sie hierfür ein abgeschirmtes Datenkabel.  
Siehe technisches Handbuch vom Infra HE.

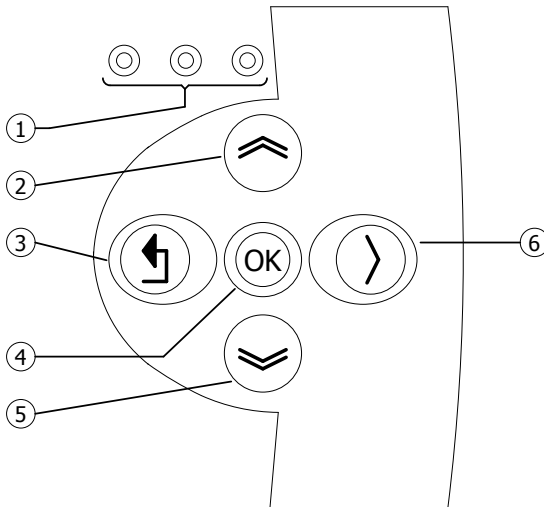
### 3.2 Anschlussmöglichkeit



|   |                               |
|---|-------------------------------|
| 1 | Stromversorgung  ~230V +N +PE |
| 2 | Infra HE (Modbus)             |
| 3 | externer Schwarzkugelfühler   |
| 4 | TCP/IP                        |








## 4.0 Bedienung und Display

### 4.1 Bedienung



|   |   |
|---|---|
| 1 | <ul style="list-style-type: none"> <li>• LED rot = Fehler</li> <li>• LED grün = in Betrieb</li> </ul>   |
| 2 | <ul style="list-style-type: none"> <li>• hoch scrollen</li> <li>• kehren Sie zurück zur vorherigen Seite</li> <li>• Wert erhöhen / Einstellung verändern</li> <li>• gehen Sie weiter</li> </ul>   |
| 3 | <ul style="list-style-type: none"> <li>• verlassen Sie die Menüseite / gehen Sie zurück zum vorherigen Menü</li> <li>• Bewegen Sie den Cursor nach links in den Eingabemodus</li> <li>• (drücken und festhalten) Verlassen Sie den Eingabemodus ohne jegliche Änderungen vorzunehmen</li> </ul> |
| 4 | <ul style="list-style-type: none"> <li>• gehen Sie zum nächsten Level/Menü/Eingabemodus (öffnen Sie den Ordner; Unterordner; Parametereinstellung)</li> <li>• Öffnen und Bestätigen der Einstellungen/ Parametereinstellungen</li> <li>• Bestätigen der Änderung/Einstellung</li> </ul>         |
| 5 | <ul style="list-style-type: none"> <li>• runter scrollen</li> <li>• gehen Sie weiter zur nächsten Seite</li> <li>• Wert verringern / Einstellungen ändern</li> <li>• gehen Sie zurück</li> </ul>  |
| 6 | <ul style="list-style-type: none"> <li>• Bewegen Sie den Cursor nach rechts in den Eingabemodus</li> </ul>  |

## 4.2 Menüstruktur

|   |                 |            |               |   |                   |            |                   |        |                   |             |  |                 |       |           |     |  |     |                   |  |   |         |  |               |       |  |             |         |  |       |        |  |   |     |       |  |         |         |  |               |       |  |             |         |  |       |        |  |
|---|-----------------|------------|---------------|---|-------------------|------------|-------------------|--------|-------------------|-------------|--|-----------------|-------|-----------|-----|--|-----|-------------------|--|---|---------|--|---------------|-------|--|-------------|---------|--|-------|--------|--|---|-----|-------|--|---------|---------|--|---------------|-------|--|-------------|---------|--|-------|--------|--|
|    |                 |            |               |   |                   |            |                   |        |                   |             |  |                 |       |           |     |  |     |                   |  |   |         |  |               |       |  |             |         |  |       |        |  |   |     |       |  |         |         |  |               |       |  |             |         |  |       |        |  |
| <table border="1" data-bbox="128 295 400 438"> <tr> <td>Die</td> <td>12:06</td> <td></td> </tr> <tr> <td> 21.5 °C</td> <td>18.0 °C</td> <td></td> </tr> <tr> <td>Betriebsmodus</td> <td>: Tag</td> <td></td> </tr> <tr> <td>überstunden</td> <td>: 0 min</td> <td></td> </tr> <tr> <td>Reset</td> <td>: Nein</td> <td></td> </tr> </table> <p>An: Flamme<br/>Aus: keine Flamme</p> | Die             | 12:06      |               |  21.5 °C | 18.0 °C           |            | Betriebsmodus     | : Tag  |                   | überstunden | : 0 min  |                 | Reset | : Nein    |     | <table border="1" data-bbox="442 295 711 438"> <tr> <td>Die</td> <td>12:06</td> <td></td> </tr> <tr> <td> #### °C</td> <td>18.0 °C</td> <td></td> </tr> <tr> <td>Betriebsmodus</td> <td>: Tag</td> <td></td> </tr> <tr> <td>überstunden</td> <td>: 0 min</td> <td></td> </tr> <tr> <td>Reset</td> <td>: Nein</td> <td></td> </tr> </table> <p>####: kein Fühler<br/>angeschlossen</p> | Die | 12:06             |  |  #### °C | 18.0 °C |  | Betriebsmodus | : Tag |  | überstunden | : 0 min |  | Reset | : Nein |  | <table border="1" data-bbox="744 295 1013 438"> <tr> <td>Die</td> <td>12:06</td> <td></td> </tr> <tr> <td>21.5 °C</td> <td>18.0 °C</td> <td></td> </tr> <tr> <td>Betriebsmodus</td> <td>: Tag</td> <td></td> </tr> <tr> <td>überstunden</td> <td>: 0 min</td> <td></td> </tr> <tr> <td>Reset</td> <td>: Nein</td> <td></td> </tr> </table> <p>21.5 °C: gemessene<br/>Temperatur.<br/>18.0 °C: Sollwert.</p> | Die | 12:06 |  | 21.5 °C | 18.0 °C |  | Betriebsmodus | : Tag |  | überstunden | : 0 min |  | Reset | : Nein |  |
| Die   | 12:06           |            |               |   |                   |            |                   |        |                   |             |  |                 |       |           |     |  |     |                   |  |   |         |  |               |       |  |             |         |  |       |        |  |   |     |       |  |         |         |  |               |       |  |             |         |  |       |        |  |
|  21.5 °C   | 18.0 °C         |            |               |   |                   |            |                   |        |                   |             |  |                 |       |           |     |  |     |                   |  |   |         |  |               |       |  |             |         |  |       |        |  |   |     |       |  |         |         |  |               |       |  |             |         |  |       |        |  |
| Betriebsmodus   | : Tag           |            |               |   |                   |            |                   |        |                   |             |  |                 |       |           |     |  |     |                   |  |   |         |  |               |       |  |             |         |  |       |        |  |   |     |       |  |         |         |  |               |       |  |             |         |  |       |        |  |
| überstunden   | : 0 min         |            |               |   |                   |            |                   |        |                   |             |  |                 |       |           |     |  |     |                   |  |   |         |  |               |       |  |             |         |  |       |        |  |   |     |       |  |         |         |  |               |       |  |             |         |  |       |        |  |
| Reset   | : Nein          |            |               |   |                   |            |                   |        |                   |             |  |                 |       |           |     |  |     |                   |  |   |         |  |               |       |  |             |         |  |       |        |  |   |     |       |  |         |         |  |               |       |  |             |         |  |       |        |  |
| Die   | 12:06           |            |               |   |                   |            |                   |        |                   |             |  |                 |       |           |     |  |     |                   |  |   |         |  |               |       |  |             |         |  |       |        |  |   |     |       |  |         |         |  |               |       |  |             |         |  |       |        |  |
|  #### °C   | 18.0 °C         |            |               |   |                   |            |                   |        |                   |             |  |                 |       |           |     |  |     |                   |  |   |         |  |               |       |  |             |         |  |       |        |  |   |     |       |  |         |         |  |               |       |  |             |         |  |       |        |  |
| Betriebsmodus   | : Tag           |            |               |   |                   |            |                   |        |                   |             |  |                 |       |           |     |  |     |                   |  |   |         |  |               |       |  |             |         |  |       |        |  |   |     |       |  |         |         |  |               |       |  |             |         |  |       |        |  |
| überstunden   | : 0 min         |            |               |   |                   |            |                   |        |                   |             |  |                 |       |           |     |  |     |                   |  |   |         |  |               |       |  |             |         |  |       |        |  |   |     |       |  |         |         |  |               |       |  |             |         |  |       |        |  |
| Reset   | : Nein          |            |               |   |                   |            |                   |        |                   |             |  |                 |       |           |     |  |     |                   |  |   |         |  |               |       |  |             |         |  |       |        |  |   |     |       |  |         |         |  |               |       |  |             |         |  |       |        |  |
| Die   | 12:06           |            |               |   |                   |            |                   |        |                   |             |  |                 |       |           |     |  |     |                   |  |   |         |  |               |       |  |             |         |  |       |        |  |   |     |       |  |         |         |  |               |       |  |             |         |  |       |        |  |
| 21.5 °C   | 18.0 °C         |            |               |   |                   |            |                   |        |                   |             |  |                 |       |           |     |  |     |                   |  |   |         |  |               |       |  |             |         |  |       |        |  |   |     |       |  |         |         |  |               |       |  |             |         |  |       |        |  |
| Betriebsmodus   | : Tag           |            |               |   |                   |            |                   |        |                   |             |  |                 |       |           |     |  |     |                   |  |   |         |  |               |       |  |             |         |  |       |        |  |   |     |       |  |         |         |  |               |       |  |             |         |  |       |        |  |
| überstunden   | : 0 min         |            |               |   |                   |            |                   |        |                   |             |  |                 |       |           |     |  |     |                   |  |   |         |  |               |       |  |             |         |  |       |        |  |   |     |       |  |         |         |  |               |       |  |             |         |  |       |        |  |
| Reset   | : Nein          |            |               |   |                   |            |                   |        |                   |             |  |                 |       |           |     |  |     |                   |  |   |         |  |               |       |  |             |         |  |       |        |  |   |     |       |  |         |         |  |               |       |  |             |         |  |       |        |  |
| <table border="1" data-bbox="128 550 400 694"> <tr> <td>Infra HE status</td> <td></td> </tr> <tr> <td>5 An</td> <td>100%</td> </tr> <tr> <td>6 Nicht verbunden</td> <td></td> </tr> <tr> <td>7 Nicht verbunden</td> <td></td> </tr> <tr> <td>8 Nicht verbunden</td> <td></td> </tr> </table>  | Infra HE status |            | 5 An          | 100%  | 6 Nicht verbunden |            | 7 Nicht verbunden |        | 8 Nicht verbunden |             | <table border="1" data-bbox="442 550 711 694"> <tr> <td>Infra HE status</td> <td></td> </tr> <tr> <td>1 Störung</td> <td>233</td> </tr> <tr> <td>2 Nicht verbunden</td> <td></td> </tr> <tr> <td>3 Nicht verbunden</td> <td></td> </tr> <tr> <td>4 Nicht verbunden</td> <td></td> </tr> </table> | Infra HE status |       | 1 Störung | 233 | 2 Nicht verbunden  |     | 3 Nicht verbunden |  | 4 Nicht verbunden   |         |  |               |       |  |             |         |  |       |        |  |   |     |       |  |         |         |  |               |       |  |             |         |  |       |        |  |
| Infra HE status   |                 |            |               |   |                   |            |                   |        |                   |             |  |                 |       |           |     |  |     |                   |  |   |         |  |               |       |  |             |         |  |       |        |  |   |     |       |  |         |         |  |               |       |  |             |         |  |       |        |  |
| 5 An  | 100%            |            |               |   |                   |            |                   |        |                   |             |  |                 |       |           |     |  |     |                   |  |   |         |  |               |       |  |             |         |  |       |        |  |   |     |       |  |         |         |  |               |       |  |             |         |  |       |        |  |
| 6 Nicht verbunden   |                 |            |               |   |                   |            |                   |        |                   |             |  |                 |       |           |     |  |     |                   |  |   |         |  |               |       |  |             |         |  |       |        |  |   |     |       |  |         |         |  |               |       |  |             |         |  |       |        |  |
| 7 Nicht verbunden   |                 |            |               |   |                   |            |                   |        |                   |             |  |                 |       |           |     |  |     |                   |  |   |         |  |               |       |  |             |         |  |       |        |  |   |     |       |  |         |         |  |               |       |  |             |         |  |       |        |  |
| 8 Nicht verbunden   |                 |            |               |   |                   |            |                   |        |                   |             |  |                 |       |           |     |  |     |                   |  |   |         |  |               |       |  |             |         |  |       |        |  |   |     |       |  |         |         |  |               |       |  |             |         |  |       |        |  |
| Infra HE status   |                 |            |               |   |                   |            |                   |        |                   |             |  |                 |       |           |     |  |     |                   |  |   |         |  |               |       |  |             |         |  |       |        |  |   |     |       |  |         |         |  |               |       |  |             |         |  |       |        |  |
| 1 Störung   | 233             |            |               |   |                   |            |                   |        |                   |             |  |                 |       |           |     |  |     |                   |  |   |         |  |               |       |  |             |         |  |       |        |  |   |     |       |  |         |         |  |               |       |  |             |         |  |       |        |  |
| 2 Nicht verbunden   |                 |            |               |   |                   |            |                   |        |                   |             |  |                 |       |           |     |  |     |                   |  |   |         |  |               |       |  |             |         |  |       |        |  |   |     |       |  |         |         |  |               |       |  |             |         |  |       |        |  |
| 3 Nicht verbunden   |                 |            |               |   |                   |            |                   |        |                   |             |  |                 |       |           |     |  |     |                   |  |   |         |  |               |       |  |             |         |  |       |        |  |   |     |       |  |         |         |  |               |       |  |             |         |  |       |        |  |
| 4 Nicht verbunden   |                 |            |               |   |                   |            |                   |        |                   |             |  |                 |       |           |     |  |     |                   |  |   |         |  |               |       |  |             |         |  |       |        |  |   |     |       |  |         |         |  |               |       |  |             |         |  |       |        |  |
| <h3>Statusbildschirm</h3>   |                 |            |               |   |                   |            |                   |        |                   |             |  |                 |       |           |     |  |     |                   |  |   |         |  |               |       |  |             |         |  |       |        |  |   |     |       |  |         |         |  |               |       |  |             |         |  |       |        |  |
| <table border="1" data-bbox="128 758 400 901"> <tr> <td>Passwort</td> </tr> <tr> <td>■■■■</td> </tr> </table>   | Passwort        | ■■■■       |               |   |                   |            |                   |        |                   |             |  |                 |       |           |     |  |     |                   |  |   |         |  |               |       |  |             |         |  |       |        |  |   |     |       |  |         |         |  |               |       |  |             |         |  |       |        |  |
| Passwort  |                 |            |               |   |                   |            |                   |        |                   |             |  |                 |       |           |     |  |     |                   |  |   |         |  |               |       |  |             |         |  |       |        |  |   |     |       |  |         |         |  |               |       |  |             |         |  |       |        |  |
| ■■■■  |                 |            |               |   |                   |            |                   |        |                   |             |  |                 |       |           |     |  |     |                   |  |   |         |  |               |       |  |             |         |  |       |        |  |   |     |       |  |         |         |  |               |       |  |             |         |  |       |        |  |
| <table border="1" data-bbox="128 933 400 1077"> <tr> <td>Menu</td> </tr> <tr> <td>Temperatur</td> </tr> <tr> <td>Zeit programm</td> </tr> <tr> <td>Betriebsmodus</td> </tr> <tr> <td>Raum</td> </tr> <tr> <td>Systemmenu</td> </tr> </table>  | Menu            | Temperatur | Zeit programm | Betriebsmodus   | Raum              | Systemmenu |                   |        |                   |             |  |                 |       |           |     |  |     |                   |  |   |         |  |               |       |  |             |         |  |       |        |  |   |     |       |  |         |         |  |               |       |  |             |         |  |       |        |  |
| Menu  |                 |            |               |   |                   |            |                   |        |                   |             |  |                 |       |           |     |  |     |                   |  |   |         |  |               |       |  |             |         |  |       |        |  |   |     |       |  |         |         |  |               |       |  |             |         |  |       |        |  |
| Temperatur  |                 |            |               |   |                   |            |                   |        |                   |             |  |                 |       |           |     |  |     |                   |  |   |         |  |               |       |  |             |         |  |       |        |  |   |     |       |  |         |         |  |               |       |  |             |         |  |       |        |  |
| Zeit programm   |                 |            |               |   |                   |            |                   |        |                   |             |  |                 |       |           |     |  |     |                   |  |   |         |  |               |       |  |             |         |  |       |        |  |   |     |       |  |         |         |  |               |       |  |             |         |  |       |        |  |
| Betriebsmodus   |                 |            |               |   |                   |            |                   |        |                   |             |  |                 |       |           |     |  |     |                   |  |   |         |  |               |       |  |             |         |  |       |        |  |   |     |       |  |         |         |  |               |       |  |             |         |  |       |        |  |
| Raum  |                 |            |               |   |                   |            |                   |        |                   |             |  |                 |       |           |     |  |     |                   |  |   |         |  |               |       |  |             |         |  |       |        |  |   |     |       |  |         |         |  |               |       |  |             |         |  |       |        |  |
| Systemmenu  |                 |            |               |   |                   |            |                   |        |                   |             |  |                 |       |           |     |  |     |                   |  |   |         |  |               |       |  |             |         |  |       |        |  |   |     |       |  |         |         |  |               |       |  |             |         |  |       |        |  |
| <table border="1" data-bbox="128 1109 400 1252"> <tr> <td>Temperatur</td> <td></td> </tr> <tr> <td>Tag</td> <td>: 18.0 °C</td> </tr> <tr> <td>Nacht</td> <td>: 8.0 °C</td> </tr> <tr> <td>Abgleichen</td> <td>: 0 °C</td> </tr> </table>  | Temperatur      |            | Tag           | : 18.0 °C   | Nacht             | : 8.0 °C   | Abgleichen        | : 0 °C |                   |             |  |                 |       |           |     |  |     |                   |  |   |         |  |               |       |  |             |         |  |       |        |  |   |     |       |  |         |         |  |               |       |  |             |         |  |       |        |  |
| Temperatur  |                 |            |               |   |                   |            |                   |        |                   |             |  |                 |       |           |     |  |     |                   |  |   |         |  |               |       |  |             |         |  |       |        |  |   |     |       |  |         |         |  |               |       |  |             |         |  |       |        |  |
| Tag   | : 18.0 °C       |            |               |   |                   |            |                   |        |                   |             |  |                 |       |           |     |  |     |                   |  |   |         |  |               |       |  |             |         |  |       |        |  |   |     |       |  |         |         |  |               |       |  |             |         |  |       |        |  |
| Nacht   | : 8.0 °C        |            |               |   |                   |            |                   |        |                   |             |  |                 |       |           |     |  |     |                   |  |   |         |  |               |       |  |             |         |  |       |        |  |   |     |       |  |         |         |  |               |       |  |             |         |  |       |        |  |
| Abgleichen  | : 0 °C          |            |               |   |                   |            |                   |        |                   |             |  |                 |       |           |     |  |     |                   |  |   |         |  |               |       |  |             |         |  |       |        |  |   |     |       |  |         |         |  |               |       |  |             |         |  |       |        |  |
| <p>Einstellen der gewünschten Tagestemperatur, Nachttemperatur und Kalibrierung</p>   |                 |            |               |   |                   |            |                   |        |                   |             |  |                 |       |           |     |  |     |                   |  |   |         |  |               |       |  |             |         |  |       |        |  |   |     |       |  |         |         |  |               |       |  |             |         |  |       |        |  |

| Zeit programm                       |                                     |                                     |                                     |                                     |                          |                          |
|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|--------------------------|--------------------------|
| Mo                                  | Di                                  | Mi                                  | Do                                  | Fr                                  | Sa                       | So                       |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Anfang                              |                                     | Ende                                |                                     |                                     |                          |                          |
| 8 : 00                              |                                     | 17 : 00                             |                                     |                                     |                          |                          |
| Block 1                             |                                     | Speichern : Nein                    |                                     |                                     |                          |                          |

### Zeitprogramm

Einstellung des Zeitprogramms: Zeitblöcke, in denen die Regelung auf Tagestemperatur umschalten muss. Möglichkeit, 7 Programmblöcke zu programmieren. Für jeden Block müssen die Wochentage sowie die Anfangs- und Endzeit ausgewählt werden.

| Betriebsmodus |      |
|---------------|------|
| mode :        | auto |

### Betriebsmodus

Einstellen welcher Betriebsmodus befolgt werden muss

- auto (clock program will be followed),
- continuous day,
- continuous night,
- out

| Raum   |  |
|--------|--|
| zone 1 |  |

### Standort

Jeder Ort kann seinen eigenen Namen erhalten, der standardmässig festgelegt ist: Zone 1.

## 4.3 Das System Menü

| Systemmenu       |      |
|------------------|------|
| Datum /          | Zeit |
| Sprache          |      |
| IP adresse       |      |
| Passwort ändern  |      |
| Minimale an Zeit |      |
| Software Version |      |


### System Menü

In dem Menü kann Datum/Zeit, Sprache, IP Adresse, und das Passwort geändert werden. Zudem kann die Softwareversion abgefragt werden.

|                  |              |
|------------------|--------------|
| Datum / Zeit     |              |
| 19 / 07 / 21     | 14 : 15 : 55 |
| 25 / 07 / 18     | 0 : 00 : 00  |
| Mon              |              |
| Speichern : Nein |              |

### Datum/Zeit

Einstellen des aktuellen Datums und der aktuellen Zeit.

|  |
|--|
| Sprache  |
| 1 - English  |
| 2 - Nederlands   |
| 3 - Français   |
| 4 - Deutsch  |
| Language  |

### Sprache

Gewünschte Sprache auswählen (English, Nederlands, Français, Deutsch).

|                  |                 |
|------------------|-----------------|
| IP adresse       |                 |
| IP               | 192. 168. 1.100 |
| Sub              | 255.255.255. 0  |
| Speichern : Nein |                 |

### IP Adresse

Einstellen der IP Adresse und Subnetzmaske

Anmerkung: Nach dem Speichern der IP Adresse startet der Regler neu.

|                 |
|-----------------|
| Passwort ändern |
| <b>1000</b>     |

### Passwort ändern

Um in das Menü zu gelangen oder sich über die Webseite einzuloggen, kann das zuvor eingestellte Passwort geändert werden (Passwort ist standardmäßig auf 1000 eingestellt).





|                      |
|----------------------|
| Minimale an Zeit     |
| Zeit : <b>20</b> min |

### Minimale Einschaltzeit

Bei der Inbetriebnahme wird das Gerät für einen minimalen Zeitraum im Hochbetriebsmodus gesetzt. Werkseinstellung: 20 Minuten.

|   |  |  |
|---|--|--|
| <div style="border: 1px solid black; padding: 10px; text-align: center;"> <p>Software Version</p> <p>1 . 0</p> </div> |  |  |
| <p><b>Softwareversion</b><br/>Die aktuelle Softwareversion.</p>   |  |  |

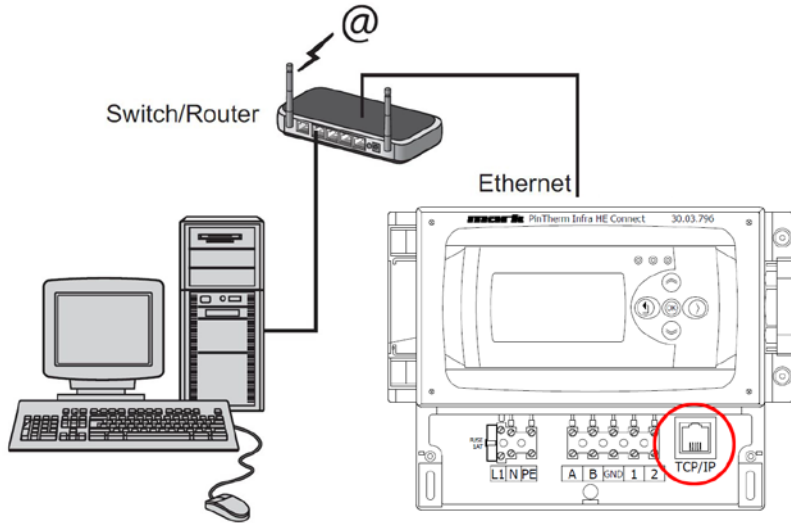
#### 4.4 Passwort auf Werkseinstellung zurücksetzen

|  |  |
|--|--|
| <p>1 Um das Passwort auf Werkseinstellung zurückzusetzen, nehmen Sie zuerst die Regelung vom Stromnetz und schalten Sie sie dann wieder ein.</p>   |  |
| <p>2 Drücken Sie im sich öffnenden Bildschirm  Sekunden lang.</p>   |  |
| <p>3 Auf dem Bildschirm wird «Kennwort zurücksetzen» angezeigt.<br/>Wählen Sie «Ja» und drücken Sie .</p> |  |
| <p>Das Passwort wurde auf Werkseinstellung zurückgesetzt. Sie kehrt zum Startbildschirm zurück.</p>  |  |

#### 4.5 Bedienung mit dem Computer

Das Gerät kann mit dem PC oder Laptop bedient werden.

Verbinden Sie den PC oder Laptop mithilfe eines LAN-Kabels (Ethernet) mit dem Display.



Nachdem die Verbindung steht, starten Sie Ihren Internetbrowser\* und geben Sie die IP Adresse ein (standardmäßig eingestellte Adresse: 192.168.1.100).

Sobald Sie verbunden sind, erscheint ein Fenster zum Einloggen.

Geben Sie den Benutzernamen und das Passwort ein.

Benutzername: user

Passwort: 1000 (standardmäßig ab Werk)\*\*

Sobald die Login-Daten richtig eingegeben wurden, erscheint eine Registerkarte in Ihrem Browser.

Über die Registerkarten oberhalb des Bildschirms kann nun die gewünschte Sprache ausgewählt werden, oder das Menü geöffnet werden, um das Zeitprogramm auf dem Bildschirm anzuzeigen und zu ändern.

\* Der Fabrikant empfiehlt als Internetbrowser Google Chrome oder Mozilla Firefox.

\*\* Falls Sie dieses über das Display der Pintherm INFRA HE Connect in dem Menü/Systemmenü/ Passwort geändert haben, geben Sie bitte das geänderte Passwort ein.



### 4.5.1 Dashboard

**mark** Dashboard Status Temperatur Programm System Netzwerk

**Dashboard**

|                  |                                     |   |
|------------------|-------------------------------------|---|
| Raum             | Zone 1                              |   |
| Betriebsmodus    | Tag                                 | <input type="text" value="Uhr (Auto)"/> |
| Temperatur       | 22.7                                | °C                                      |
| Sollwert         | 18.0                                | °C                                      |
| Überstunden      | <input type="text" value="0"/> min. | <input type="text"/>                    |
| Wärmeanforderung | <input type="radio"/>               |   |
| Fehlerstatus     | <input type="radio"/>               |   |

### 4.5.2 Menü Status

**mark** Dashboard Status Temperatur Programm System Netzwerk

**Status**

|            |                 |
|------------|-----------------|
| Infra HE 1 | Aus             |
| Infra HE 2 | nicht verbunden |
| Infra HE 3 | nicht verbunden |
| Infra HE 4 | nicht verbunden |

### 4.5.3 Menü Temperatur

**mark** Dashboard Status Temperatur Programm System Netzwerk

**Temperatureinstellung**

**Temperatur**

|                 |                                      |
|-----------------|--------------------------------------|
| Tagestemperatur | <input type="text" value="18.0"/> °C |
| Nachttemperatur | <input type="text" value="8.0"/> °C  |

**Kalibrierung**

|            |                                  |
|------------|----------------------------------|
| Abweichung | <input type="text" value="0"/> K |
|------------|----------------------------------|

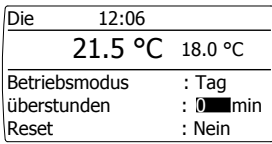
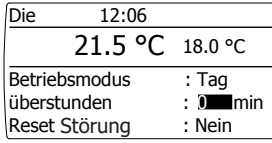


### 4.5.4 Menü Zeitprogramm

**mark** Dashboard Status Temperatur Programm System Netzwerk

**Programm**

| Programm 1  | Programm 2   | Programm 3   | Programm 4   |
|---|--|--|--|
| <input checked="" type="checkbox"/> Montag<br><input checked="" type="checkbox"/> Dienstag<br><input checked="" type="checkbox"/> Mittwoch<br><input checked="" type="checkbox"/> Donnerstag<br><input checked="" type="checkbox"/> Freitag<br><input type="checkbox"/> Samstag<br><input type="checkbox"/> Sonntag | <input type="checkbox"/> Montag<br><input type="checkbox"/> Dienstag<br><input type="checkbox"/> Mittwoch<br><input type="checkbox"/> Donnerstag<br><input type="checkbox"/> Freitag<br><input type="checkbox"/> Samstag<br><input type="checkbox"/> Sonntag | <input type="checkbox"/> Montag<br><input type="checkbox"/> Dienstag<br><input type="checkbox"/> Mittwoch<br><input type="checkbox"/> Donnerstag<br><input type="checkbox"/> Freitag<br><input type="checkbox"/> Samstag<br><input type="checkbox"/> Sonntag | <input type="checkbox"/> Montag<br><input type="checkbox"/> Dienstag<br><input type="checkbox"/> Mittwoch<br><input type="checkbox"/> Donnerstag<br><input type="checkbox"/> Freitag<br><input type="checkbox"/> Samstag<br><input type="checkbox"/> Sonntag |
| Anfang <input type="text" value="08"/> : <input type="text" value="00"/><br>Ende <input type="text" value="17"/> : <input type="text" value="00"/>  | Anfang <input type="text" value="08"/> : <input type="text" value="00"/><br>Ende <input type="text" value="17"/> : <input type="text" value="00"/>   | Anfang <input type="text" value="08"/> : <input type="text" value="00"/><br>Ende <input type="text" value="17"/> : <input type="text" value="00"/>   | Anfang <input type="text" value="08"/> : <input type="text" value="00"/><br>Ende <input type="text" value="17"/> : <input type="text" value="00"/>   |

## 5.0 Störung

| Abbildung   | Meldung                           | Wo              | Bedeutung  |
|---|-----------------------------------|-----------------|--|
|   | #####°C                           | Display         | Kein Fühler angeschlossen.   |
|   | Reset Störung: nein               | Display         | Es steht ein INFRA auf Störung. Über das Display kann nachverfolgt werden in welcher Zone die Störung ist. |
|  | Das rechte Lämpchen leuchtet rot. | Display         | Es steht ein INFRA auf Störung. Über das Display kann nachverfolgt werden in welcher Zone die Störung ist. |
|  | ----- °C                          | Internetbrowser | Kein Fühler angeschlossen.   |

## 6.0 Entsorgung

Falls die INFRA Zonen Regelung ersetzt oder entfernt wird, muss diese entsprechend der ländlichen oder örtlichen Verordnungen recycelt oder vernichtet werden.

## 7.0 Anhang

[1] Modbus-Tabelle

[2] - [6] Anschlussplan

# Lire attentivement cette notice avant d'installer et de mettre l'appareil en service

FR

## Avertissement!

Une installation, un réglage, une modification, une réparation ou un entretien mal exécuté(s) peut entraîner des dommages matériels ou des blessures. Tous les travaux doivent être exécutés par des professionnels reconnus et qualifiés. Lorsque l'appareil n'est pas installé suivant les prescriptions, la garantie échoit.

Cet appareil n'est pas destiné à l'utilisation par des personnes (y compris des enfants) aux capacités physiques, sensorielles ou mentales amoindries, ou manquant d'expériences et de connaissances, sans surveillance ni instructions quant à l'utilisation de l'appareil par une personne responsable de leur sécurité. Il convient de surveiller les enfants afin de veiller à ce qu'ils ne jouent pas avec l'appareil.

## 1.0 Informations générales

### 1.1 Objet de modifications

Le fabricant s'emploie constamment à améliorer ses produits et se réserve en conséquence le droit d'apporter des modifications à ces spécifications sans préavis. Les caractéristiques techniques sont supposées être correctes mais ne sauraient constituer la base des termes d'un contrat ou de la garantie. Toutes les commandes sont acceptées sur la base des termes standard de nos conditions générales de vente et de livraison (disponibles sur demande).

Les informations contenues dans ce document sont sujet à changement sans préavis. La version la plus récente de ce guide est toujours disponible sur [www.markclimate.fr/telechargements](http://www.markclimate.fr/telechargements).

### 1.2 Avertissements généraux

L'installation doit répondre aux prescriptions nationales et/ou régionales en vigueur. Faites dès lors installer PinTherm Infra HE Connect par un installateur compétent et qualifié en tenant compte de la législation nationale et internationale. En cas d'installation, de réglage, de modification, d'entretien ou de réparation erroné, la garantie échoit.

## 2.0 Données techniques

### 2.1 Données techniques Pintherm Infra HE Connect

- Fourniture : Armoire de commande avec écran externe
- Dimensions (Lxlxh): 376 x 300 x 120mm
- Degré de protection: IP54
- Montage écran : encastrement / montage mural
- Max. nombre d'Infra: 8
- Portée de réglage température: 2...40°C par 0,5°C.
- Choix de fonctionnement : Automatique, journée continue, nuit continue ou désactivation continue
- Surveillance température de jour/de nuit avec lecture de la température ambiante actuelle à l'écran

- Adaptation automatique heure d'été/hiver
- Réglage : modulant
- Minuterie avec programme hebdomadaire (7 blocs d'activation)
- Minuterie d'heures supplémentaires : 0-180 min
- Signalement défaut brûleur
- Possibilité de réarmement pour déverrouillage du défaut brûleur
- Protection par code PIN pour modifier entre autres les heures de fonctionnement et les températures.
- Langues : anglais, français, allemand et néerlandais
- Calibration : réglable de -3.5°C à +3.5°C par 0,5°C.
- Alimentation: 230Vac / 50Hz
- Fusible: 10A
- Modbus TCP/IP
- Serveur internet intégré

## 2.2 Caractéristiques techniques du capteur externe

- Nom du type : RSTF NTC 10K 3435
- Numéro de référence : 06 29 002
- Résistance : NTC 10K 3435
- Dimensions (lxbxh) : 85 x 85 x 27mm (40 mm incl. hauteur capteur externe)
- Poids : 42 gram
- Raccordement électrique : 0.14-1.5mm<sup>2</sup>
- Classe de protection : IP30

## 2.3 Tableau de résistance du capteur externe

| NTC 10K 3435 |        |     |        |
|--------------|--------|-----|--------|
| °C           | kΩ     | °C  | kΩ     |
| -25          | 86,180 | +10 | 17,950 |
| -20          | 67,640 | +15 | 14,680 |
| -15          | 53,310 | +20 | 12,090 |
| -10          | 42,390 | +25 | 10,000 |
| -5           | 33,850 | +30 | 8,314  |
| 0            | 27,250 | +35 | 6,941  |
| +5           | 22,030 | +40 | 5,829  |

## 2.4 Réglages du PinTherm Infra Connect effectués en usine

- Code du menu : 1000
- Heures de commutation : Block 1 Lun, Mar, Mer, Jeu, Ven 08:00-17:00 h  
Block 2 - 7 OFF
- Température ambiante : Température pendant la journée 18°C  
Température pendant la nuit 08°C
- Calibration : +0.0

## 3.0 Installation

### 3.1 Montage du PinTherm Infra HE Connect

Déterminez un endroit adapté pour monter le PinTherm Infra Connect. Monter le PinTherm Infra Connect sur une surface solide qui peut soutenir au minimum 4kg. Il est conseillé de placer le PinTherm+ à une distance de  $\pm 1,5\text{m}$  du sol, à un endroit accessible.

Pour le raccordement de câble, veuillez seulement utiliser des raccordements de câble adaptés avec un réducteur de tension et avec une classe de feu minimale d'UL94V2. Avant le raccordement du câble, contrôlez que la tension est bien déconnectée. Si ce n'est pas le cas, vous devez d'abord débrancher la tension avant de poursuivre. Lors de la déconnexion de la tension, de l'appareil à raccorder, il convient de tenir également compte du livret technique/du manuel de commande de l'appareil.

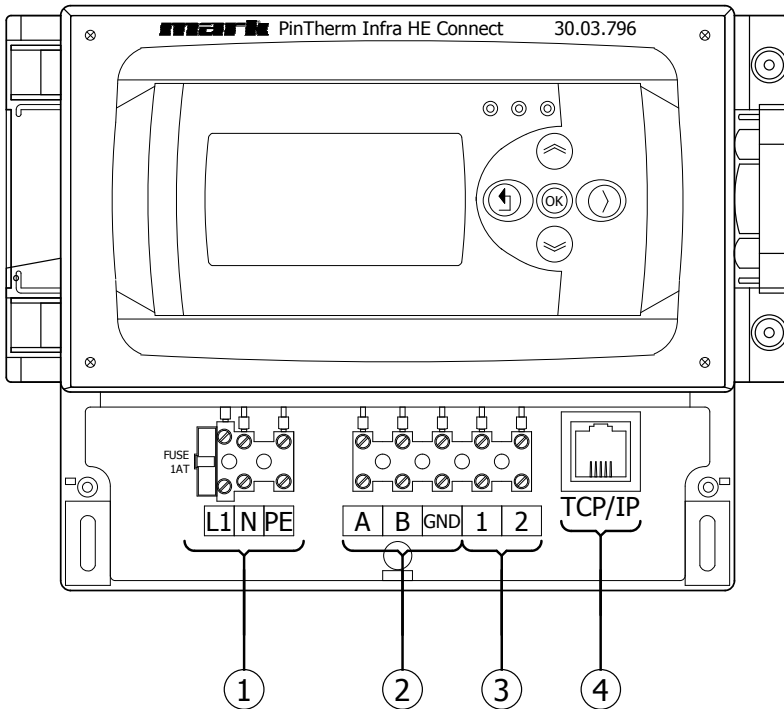
Branchez le PinTherm Infra Connect en vous référant à l'un des schémas de câblage, figurant au dos de cette notice technique.

| Diamètre           | Longueur   |
|--------------------|------------|
| 0.8mm <sup>2</sup> | 80 mètres  |
| 1.0mm <sup>2</sup> | 100 mètres |
| 1.5mm <sup>2</sup> | 150 mètres |



Utiliser un câble de données blindé.  
Voir le livre technique de Infra HE.

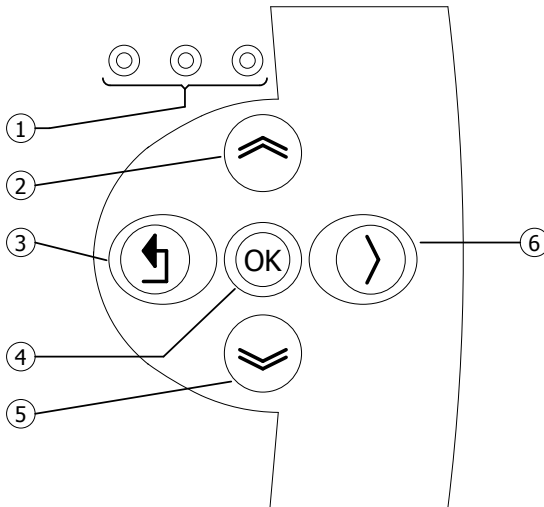
### 3.2 Possibilités de connexion



|   |                            |
|---|----------------------------|
| 1 | Alimentation I~230V +N +PE |
| 2 | Infra HE (Modbus)          |
| 3 | Connection capteur externe |
| 4 | TCP/IP                     |

## 4.0 Bedienung en display











### 4.1 Bedienung



FR

|   |   |
|---|---|
| 1 | <ul style="list-style-type: none"><li>• LED rouge = mauvais fonctionnement</li><li>• LED verte = en entreprise</li></ul>  |
| 2 | <ul style="list-style-type: none"><li>• Défiler vers le haut</li><li>• Retourner à la page précédente</li><li>• Augmenter la valeur/ éditer les paramètres</li><li>• Suivant</li></ul>  |
| 3 | <ul style="list-style-type: none"><li>• Quitter le menu/ retourner au menu précédent</li><li>• Déplacer le curseur vers la gauche sur le mode de modification</li><li>• (Appuyer et maintenir) quitter le monde de modification sans faire de changements</li></ul>             |
| 4 | <ul style="list-style-type: none"><li>• Passer au niveau/menu/paramètre suivant (Ouvrir le dossier, sous-dossier, paramètres des réglages)</li><li>• Ouvrir et confirmer les paramètres/ les paramètres des réglages</li><li>• Confirmer le changement des paramètres</li></ul> |
| 5 | <ul style="list-style-type: none"><li>• Défiler vers le bas</li><li>• Aller page suivante</li><li>• Baisser la valeur/ éditer les paramètres</li><li>• Aller au dernier</li></ul>   |
| 6 | <ul style="list-style-type: none"><li>• Déplacer le curseur vers la droite sur le mode de modification</li></ul>  |

## 4.2 Structure du menu

|  |                       |                    |                   |   |         |              |      |              |   |              |  |                 |       |       |                       |   |              |       |              |   |              |         |      |        |  |              |         |  |       |       |  |  |     |       |  |   |         |         |      |        |  |              |         |  |       |       |  |
|--|-----------------------|--------------------|-------------------|---|---------|--------------|------|--------------|---|--------------|--|-----------------|-------|-------|-----------------------|---|--------------|-------|--------------|---|--------------|---------|------|--------|--|--------------|---------|--|-------|-------|--|--|-----|-------|--|---|---------|---------|------|--------|--|--------------|---------|--|-------|-------|--|
|   |                       |                    |                   |   |         |              |      |              |   |              |  |                 |       |       |                       |   |              |       |              |   |              |         |      |        |  |              |         |  |       |       |  |  |     |       |  |   |         |         |      |        |  |              |         |  |       |       |  |
| <table border="1" data-bbox="128 295 400 438"> <tr> <td>Mar</td> <td>12:06</td> <td></td> </tr> <tr> <td></td> <td>21.5 °C</td> <td>18.0 °C</td> </tr> <tr> <td>Mode</td> <td colspan="2">: Jour</td> </tr> <tr> <td>Heures suppl</td> <td colspan="2">: 0 min</td> </tr> <tr> <td>Reset</td> <td colspan="2">: Non</td> </tr> </table> <p>On: flamme<br/>Off : pas de flamme</p> | Mar                   | 12:06              |                   |  | 21.5 °C | 18.0 °C      | Mode | : Jour       |   | Heures suppl | : 0 min  |                 | Reset | : Non |                       | <table border="1" data-bbox="431 295 700 438"> <tr> <td>Mar</td> <td>12:06</td> <td></td> </tr> <tr> <td></td> <td>#### °C</td> <td>18.0 °C</td> </tr> <tr> <td>Mode</td> <td colspan="2">: Jour</td> </tr> <tr> <td>Heures suppl</td> <td colspan="2">: 0 min</td> </tr> <tr> <td>Reset</td> <td colspan="2">: Non</td> </tr> </table> <p>####: Pas de capteur connecté</p> | Mar          | 12:06 |              |  | #### °C      | 18.0 °C | Mode | : Jour |  | Heures suppl | : 0 min |  | Reset | : Non |  | <table border="1" data-bbox="739 295 1013 438"> <tr> <td>Mar</td> <td>12:06</td> <td></td> </tr> <tr> <td></td> <td>21.5 °C</td> <td>18.0 °C</td> </tr> <tr> <td>Mode</td> <td colspan="2">: Jour</td> </tr> <tr> <td>Heures suppl</td> <td colspan="2">: 0 min</td> </tr> <tr> <td>Reset</td> <td colspan="2">: Non</td> </tr> </table> <p>21.5 °C: Température mesurée<br/>18.0 °C: Setpoint.</p> | Mar | 12:06 |  |  | 21.5 °C | 18.0 °C | Mode | : Jour |  | Heures suppl | : 0 min |  | Reset | : Non |  |
| Mar  | 12:06                 |                    |                   |   |         |              |      |              |   |              |  |                 |       |       |                       |   |              |       |              |   |              |         |      |        |  |              |         |  |       |       |  |  |     |       |  |   |         |         |      |        |  |              |         |  |       |       |  |
|   | 21.5 °C               | 18.0 °C            |                   |   |         |              |      |              |   |              |  |                 |       |       |                       |   |              |       |              |   |              |         |      |        |  |              |         |  |       |       |  |  |     |       |  |   |         |         |      |        |  |              |         |  |       |       |  |
| Mode   | : Jour                |                    |                   |   |         |              |      |              |   |              |  |                 |       |       |                       |   |              |       |              |   |              |         |      |        |  |              |         |  |       |       |  |  |     |       |  |   |         |         |      |        |  |              |         |  |       |       |  |
| Heures suppl   | : 0 min               |                    |                   |   |         |              |      |              |   |              |  |                 |       |       |                       |   |              |       |              |   |              |         |      |        |  |              |         |  |       |       |  |  |     |       |  |   |         |         |      |        |  |              |         |  |       |       |  |
| Reset  | : Non                 |                    |                   |   |         |              |      |              |   |              |  |                 |       |       |                       |   |              |       |              |   |              |         |      |        |  |              |         |  |       |       |  |  |     |       |  |   |         |         |      |        |  |              |         |  |       |       |  |
| Mar  | 12:06                 |                    |                   |   |         |              |      |              |   |              |  |                 |       |       |                       |   |              |       |              |   |              |         |      |        |  |              |         |  |       |       |  |  |     |       |  |   |         |         |      |        |  |              |         |  |       |       |  |
|   | #### °C               | 18.0 °C            |                   |   |         |              |      |              |   |              |  |                 |       |       |                       |   |              |       |              |   |              |         |      |        |  |              |         |  |       |       |  |  |     |       |  |   |         |         |      |        |  |              |         |  |       |       |  |
| Mode   | : Jour                |                    |                   |   |         |              |      |              |   |              |  |                 |       |       |                       |   |              |       |              |   |              |         |      |        |  |              |         |  |       |       |  |  |     |       |  |   |         |         |      |        |  |              |         |  |       |       |  |
| Heures suppl   | : 0 min               |                    |                   |   |         |              |      |              |   |              |  |                 |       |       |                       |   |              |       |              |   |              |         |      |        |  |              |         |  |       |       |  |  |     |       |  |   |         |         |      |        |  |              |         |  |       |       |  |
| Reset  | : Non                 |                    |                   |   |         |              |      |              |   |              |  |                 |       |       |                       |   |              |       |              |   |              |         |      |        |  |              |         |  |       |       |  |  |     |       |  |   |         |         |      |        |  |              |         |  |       |       |  |
| Mar  | 12:06                 |                    |                   |   |         |              |      |              |   |              |  |                 |       |       |                       |   |              |       |              |   |              |         |      |        |  |              |         |  |       |       |  |  |     |       |  |   |         |         |      |        |  |              |         |  |       |       |  |
|   | 21.5 °C               | 18.0 °C            |                   |   |         |              |      |              |   |              |  |                 |       |       |                       |   |              |       |              |   |              |         |      |        |  |              |         |  |       |       |  |  |     |       |  |   |         |         |      |        |  |              |         |  |       |       |  |
| Mode   | : Jour                |                    |                   |   |         |              |      |              |   |              |  |                 |       |       |                       |   |              |       |              |   |              |         |      |        |  |              |         |  |       |       |  |  |     |       |  |   |         |         |      |        |  |              |         |  |       |       |  |
| Heures suppl   | : 0 min               |                    |                   |   |         |              |      |              |   |              |  |                 |       |       |                       |   |              |       |              |   |              |         |      |        |  |              |         |  |       |       |  |  |     |       |  |   |         |         |      |        |  |              |         |  |       |       |  |
| Reset  | : Non                 |                    |                   |   |         |              |      |              |   |              |  |                 |       |       |                       |   |              |       |              |   |              |         |      |        |  |              |         |  |       |       |  |  |     |       |  |   |         |         |      |        |  |              |         |  |       |       |  |
| <table border="1" data-bbox="128 526 400 662"> <tr> <td colspan="2">Infra HE status</td> </tr> <tr> <td>1</td> <td>Marche 100%</td> </tr> <tr> <td>2</td> <td>pas connecte</td> </tr> <tr> <td>3</td> <td>pas connecte</td> </tr> <tr> <td>4</td> <td>pas connecte</td> </tr> </table>   | Infra HE status       |                    | 1                 | Marche 100%   | 2       | pas connecte | 3    | pas connecte | 4 | pas connecte | <table border="1" data-bbox="431 526 700 662"> <tr> <td colspan="2">Infra HE status</td> </tr> <tr> <td>5</td> <td>Malfunctionnement 233</td> </tr> <tr> <td>6</td> <td>pas connecte</td> </tr> <tr> <td>7</td> <td>pas connecte</td> </tr> <tr> <td>8</td> <td>pas connecte</td> </tr> </table> | Infra HE status |       | 5     | Malfunctionnement 233 | 6   | pas connecte | 7     | pas connecte | 8   | pas connecte |         |      |        |  |              |         |  |       |       |  |  |     |       |  |   |         |         |      |        |  |              |         |  |       |       |  |
| Infra HE status  |                       |                    |                   |   |         |              |      |              |   |              |  |                 |       |       |                       |   |              |       |              |   |              |         |      |        |  |              |         |  |       |       |  |  |     |       |  |   |         |         |      |        |  |              |         |  |       |       |  |
| 1  | Marche 100%           |                    |                   |   |         |              |      |              |   |              |  |                 |       |       |                       |   |              |       |              |   |              |         |      |        |  |              |         |  |       |       |  |  |     |       |  |   |         |         |      |        |  |              |         |  |       |       |  |
| 2  | pas connecte          |                    |                   |   |         |              |      |              |   |              |  |                 |       |       |                       |   |              |       |              |   |              |         |      |        |  |              |         |  |       |       |  |  |     |       |  |   |         |         |      |        |  |              |         |  |       |       |  |
| 3  | pas connecte          |                    |                   |   |         |              |      |              |   |              |  |                 |       |       |                       |   |              |       |              |   |              |         |      |        |  |              |         |  |       |       |  |  |     |       |  |   |         |         |      |        |  |              |         |  |       |       |  |
| 4  | pas connecte          |                    |                   |   |         |              |      |              |   |              |  |                 |       |       |                       |   |              |       |              |   |              |         |      |        |  |              |         |  |       |       |  |  |     |       |  |   |         |         |      |        |  |              |         |  |       |       |  |
| Infra HE status  |                       |                    |                   |   |         |              |      |              |   |              |  |                 |       |       |                       |   |              |       |              |   |              |         |      |        |  |              |         |  |       |       |  |  |     |       |  |   |         |         |      |        |  |              |         |  |       |       |  |
| 5  | Malfunctionnement 233 |                    |                   |   |         |              |      |              |   |              |  |                 |       |       |                       |   |              |       |              |   |              |         |      |        |  |              |         |  |       |       |  |  |     |       |  |   |         |         |      |        |  |              |         |  |       |       |  |
| 6  | pas connecte          |                    |                   |   |         |              |      |              |   |              |  |                 |       |       |                       |   |              |       |              |   |              |         |      |        |  |              |         |  |       |       |  |  |     |       |  |   |         |         |      |        |  |              |         |  |       |       |  |
| 7  | pas connecte          |                    |                   |   |         |              |      |              |   |              |  |                 |       |       |                       |   |              |       |              |   |              |         |      |        |  |              |         |  |       |       |  |  |     |       |  |   |         |         |      |        |  |              |         |  |       |       |  |
| 8  | pas connecte          |                    |                   |   |         |              |      |              |   |              |  |                 |       |       |                       |   |              |       |              |   |              |         |      |        |  |              |         |  |       |       |  |  |     |       |  |   |         |         |      |        |  |              |         |  |       |       |  |
| <h3>Statut de l'écran</h3>   |                       |                    |                   |   |         |              |      |              |   |              |  |                 |       |       |                       |   |              |       |              |   |              |         |      |        |  |              |         |  |       |       |  |  |     |       |  |   |         |         |      |        |  |              |         |  |       |       |  |
| <table border="1" data-bbox="128 734 400 869"> <tr> <td>Mot de passe</td> </tr> <tr> <td>1000</td> </tr> </table>  | Mot de passe          | 1000               |                   |   |         |              |      |              |   |              |  |                 |       |       |                       |   |              |       |              |   |              |         |      |        |  |              |         |  |       |       |  |  |     |       |  |   |         |         |      |        |  |              |         |  |       |       |  |
| Mot de passe   |                       |                    |                   |   |         |              |      |              |   |              |  |                 |       |       |                       |   |              |       |              |   |              |         |      |        |  |              |         |  |       |       |  |  |     |       |  |   |         |         |      |        |  |              |         |  |       |       |  |
| 1000   |                       |                    |                   |   |         |              |      |              |   |              |  |                 |       |       |                       |   |              |       |              |   |              |         |      |        |  |              |         |  |       |       |  |  |     |       |  |   |         |         |      |        |  |              |         |  |       |       |  |
| <table border="1" data-bbox="128 906 400 1045"> <tr> <td>Menu</td> </tr> <tr> <td><b>Température</b></td> </tr> <tr> <td>Horloge Programme</td> </tr> <tr> <td>Mode</td> </tr> <tr> <td>Espace</td> </tr> <tr> <td>Menu système</td> </tr> </table>  | Menu                  | <b>Température</b> | Horloge Programme | Mode  | Espace  | Menu système |      |              |   |              |  |                 |       |       |                       |   |              |       |              |   |              |         |      |        |  |              |         |  |       |       |  |  |     |       |  |   |         |         |      |        |  |              |         |  |       |       |  |
| Menu   |                       |                    |                   |   |         |              |      |              |   |              |  |                 |       |       |                       |   |              |       |              |   |              |         |      |        |  |              |         |  |       |       |  |  |     |       |  |   |         |         |      |        |  |              |         |  |       |       |  |
| <b>Température</b>   |                       |                    |                   |   |         |              |      |              |   |              |  |                 |       |       |                       |   |              |       |              |   |              |         |      |        |  |              |         |  |       |       |  |  |     |       |  |   |         |         |      |        |  |              |         |  |       |       |  |
| Horloge Programme  |                       |                    |                   |   |         |              |      |              |   |              |  |                 |       |       |                       |   |              |       |              |   |              |         |      |        |  |              |         |  |       |       |  |  |     |       |  |   |         |         |      |        |  |              |         |  |       |       |  |
| Mode   |                       |                    |                   |   |         |              |      |              |   |              |  |                 |       |       |                       |   |              |       |              |   |              |         |      |        |  |              |         |  |       |       |  |  |     |       |  |   |         |         |      |        |  |              |         |  |       |       |  |
| Espace   |                       |                    |                   |   |         |              |      |              |   |              |  |                 |       |       |                       |   |              |       |              |   |              |         |      |        |  |              |         |  |       |       |  |  |     |       |  |   |         |         |      |        |  |              |         |  |       |       |  |
| Menu système   |                       |                    |                   |   |         |              |      |              |   |              |  |                 |       |       |                       |   |              |       |              |   |              |         |      |        |  |              |         |  |       |       |  |  |     |       |  |   |         |         |      |        |  |              |         |  |       |       |  |
| <table border="1" data-bbox="128 1082 400 1220"> <tr> <td>Température</td> </tr> <tr> <td>Jour: 18.0 °C</td> </tr> <tr> <td>Nuit: 8.0 °C</td> </tr> <tr> <td>Etalonner: 0 °C</td> </tr> </table>   | Température           | Jour: 18.0 °C      | Nuit: 8.0 °C      | Etalonner: 0 °C   |         |              |      |              |   |              |  |                 |       |       |                       |   |              |       |              |   |              |         |      |        |  |              |         |  |       |       |  |  |     |       |  |   |         |         |      |        |  |              |         |  |       |       |  |
| Température  |                       |                    |                   |   |         |              |      |              |   |              |  |                 |       |       |                       |   |              |       |              |   |              |         |      |        |  |              |         |  |       |       |  |  |     |       |  |   |         |         |      |        |  |              |         |  |       |       |  |
| Jour: 18.0 °C  |                       |                    |                   |   |         |              |      |              |   |              |  |                 |       |       |                       |   |              |       |              |   |              |         |      |        |  |              |         |  |       |       |  |  |     |       |  |   |         |         |      |        |  |              |         |  |       |       |  |
| Nuit: 8.0 °C   |                       |                    |                   |   |         |              |      |              |   |              |  |                 |       |       |                       |   |              |       |              |   |              |         |      |        |  |              |         |  |       |       |  |  |     |       |  |   |         |         |      |        |  |              |         |  |       |       |  |
| Etalonner: 0 °C  |                       |                    |                   |   |         |              |      |              |   |              |  |                 |       |       |                       |   |              |       |              |   |              |         |      |        |  |              |         |  |       |       |  |  |     |       |  |   |         |         |      |        |  |              |         |  |       |       |  |
| <p>Régler la température désirée de jour, de nuit et la calibration</p>  |                       |                    |                   |   |         |              |      |              |   |              |  |                 |       |       |                       |   |              |       |              |   |              |         |      |        |  |              |         |  |       |       |  |  |     |       |  |   |         |         |      |        |  |              |         |  |       |       |  |



|  |  |  |
|--|--|--|
| <div data-bbox="120 92 396 229"> <p>Horloge Programme</p> <p>Lu Ma Me Je Ve Sa Di</p> <p><input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>Début Fin</p> <p>8 : 00 17 : 00</p> <p>Bloc 1 Magasin : Non</p> </div> |  |  |
|--|--|--|

### Programme de l'horloge

Régler le programme de l'horloge : Périodes durant lesquels le régulateur doit passer à la température de jour. Possibilité de programmer 7 périodes. Pour chaque bloc (période), il faut sélectionner les jours de la semaine et les heures de début et de fin.

|  |  |  |
|--|--|--|
| <div data-bbox="120 386 396 523"> <p>Mode</p> <p>mode : <input type="text" value="auto"/></p> </div> |  |  |
|--|--|--|

### Le mode de fonctionnement

Régler les modes opératoires pour chaque zone

- Auto (le programme de l'horloge sera suivi)
- Jour continu
- Nuit continue
- Off

|   |  |  |
|---|--|--|
| <div data-bbox="120 730 396 868"> <p>Espace</p> <p><input type="text" value="zone 1"/></p> </div> |  |  |
|---|--|--|

### Emplacement

Chaque emplacement peut avoir sa propre désignation, réglage par défaut : zone 1

## 4.3 Het system menu

|   |  |  |
|---|--|--|
| <div data-bbox="120 1023 385 1160"> <p>Menu système</p> <p><input checked="" type="text" value="Date / Heure"/></p> <p>Langue</p> <p>Adresse IP</p> <p>Changer mot de passe</p> <p>Minimum à l'heure</p> <p>Version logicielle</p> </div> |  |  |
|---|--|--|

### Menu système

Dans ce menu, la date/ l'heure, la langue, l'adresse IP et le mot de passe peuvent être changé  
La version de logiciel peut être affichée

Date / Heure  
19 / 07 / 21 14 : 15 : 55  
25 / 07 / 18 0 : 00 : 00  
Lun  
Magasin : Non

### Date et heure

Régler la date et l'heure actuelle

Langue  
1 - English  
2 - Nederlands  
3 - Français  
4 - Deutsch  
Langue

### Langues

Afficher la langue désirée (Anglais, Néerlandais, Français ou Allemand)

Adresse IP  
IP 192. 168. 1.100  
Sub 255.255. 255. 0  
Magasin : Non

### Adresse IP

Régler l'adresse IP et le masque de sous réseau

Note: Après avoir changé l'adresse IP, le contrôleur va redémarrer

Changer mot de passe  
1000

### Changer le mot de passe

Régler le changement de mot de passe pour avoir accès au menu ou à une page web

Le mot de passe est (000).





Minimum à l'heure  
Temps : 20min

### Temps d'activation minimal

Au début, faites fonctionner l'appareil pour une période minimale dans le Mode Haut, dans activité. Mise en route : 20 minutes.

|  |  |  |
|--|--|--|
| <p>Version logicielle<br/>1 . 0</p>                                    |  |  |
| <p><b>Version du logiciel</b><br/>La version actuelle du logiciel.</p> |  |  |

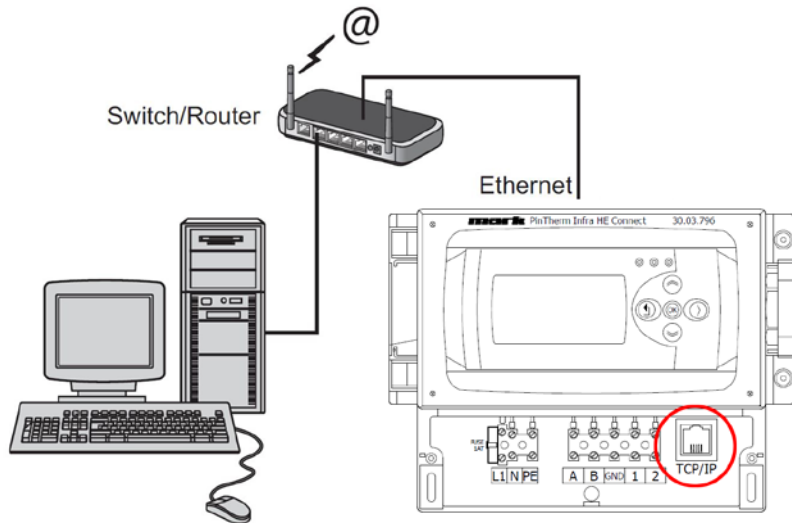
#### 4.4 Réinitialiser le mot de passe au réglage d'usine

|  |  |
|--|--|
| <p>1 Pour réinitialiser le mot de passe au réglage d'usine, débranchez d'abord l'alimentation du thermostat, puis rebranchez-la.</p>   |  |
| <p>2 Appuyez sur l'écran d'ouverture pendant 2 secondes de .</p>                                |  |
| <p>3 L'écran « Réinitialiser le mot de passe » s'affiche. Sélectionnez « Oui » et appuyez .</p> |  |
| <p>Le mot de passe est réinitialisé au réglage d'usine. L'écran de base s'affiche à nouveau.</p>   |  |

#### 4.5 Opérer avec un ordinateur

L'unité peut être contrôlée avec un ordinateur

Connectez votre ordinateur au moyen d'un câble Ethernet à l'écran.



Une fois que les deux sont connectés, lancez votre navigateur internet\* et entrez l'adresse IP (adresse par défaut : 192.168.1.100).

Quand il y a une connexion, un écran de connexion apparaît

Entrez le nom d'utilisateur et le mot de passe

Nom d'utilisateur: user

Mot de passe: 1000 (réglage d'usine)\*\*

Quand les informations de connexion ont été correctement entrées une page avec les statuts et détails apparaît dans votre navigateur. Via les onglets en haut de la page, la langue désirée peut être choisie ou le menu peut être ouvert pour voir ou changer les programmes.

\* Le fabricant conseille Google Chrome ou Mozilla Firefox

\*\* Dans le cas où vous avez changé via l'écran du contrôleur de Pintherm Infra HE Connect (menu/système/ changer de mot de passe) vous devez entrer le nouveau mot de passe

## 4.5.1 Dashboard

**mark** Dashboard Etat Température Programme Système Réseau

**Dashboard**

|                        |                       |                  |
|------------------------|-----------------------|------------------|
| Espace                 | Zone 1                |                  |
| Mode                   | Jour                  | Horloge (Auto) ▼ |
| Température            | 22.7                  | °C               |
| Point de consigne      | 18.0                  | °C               |
| Heures supplémentaires | 0 min.                | ▼                |
| Demande de chaleur     | <input type="radio"/> |                  |
| Etat de défaut         | <input type="radio"/> |                  |

FR

## 4.5.2 Statut de l'écran

**mark** Dashboard Etat Température Programme Système Réseau

**Etat**

|            |                             |
|------------|-----------------------------|
| Infra HE 1 | Arrêt <input type="radio"/> |
| Infra HE 2 | pas connecte                |
| Infra HE 3 | pas connecte                |
| Infra HE 4 | pas connecte                |

## 4.5.3 Menu de température

**mark** Dashboard Etat Température Programme Système Réseau

**Régulation Température**

**Température**

|                  |           |
|------------------|-----------|
| Jour température | 18.0 ▼ °C |
| Nuit température | 8.0 ▼ °C  |

**Calibrage**

|       |       |
|-------|-------|
| Ecart | 0 ▼ K |
|-------|-------|

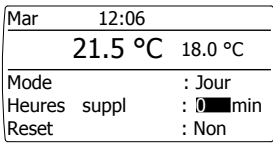
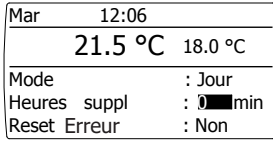


## 4.5.4 Menu du programme horloge

**mark** Dashboard Etat Température Programme Système Réseau

**Programme**

| Programme 1   | Programme 2  | Programme 3  | Programme 4  |
|---|--|--|--|
| <input checked="" type="checkbox"/> Lundi<br><input checked="" type="checkbox"/> Mardi<br><input checked="" type="checkbox"/> Mercredi<br><input checked="" type="checkbox"/> Jeudi<br><input checked="" type="checkbox"/> Vendredi<br><input type="checkbox"/> Samedi<br><input type="checkbox"/> Dimanche | <input type="checkbox"/> Lundi<br><input type="checkbox"/> Mardi<br><input type="checkbox"/> Mercredi<br><input type="checkbox"/> Jeudi<br><input type="checkbox"/> Vendredi<br><input type="checkbox"/> Samedi<br><input type="checkbox"/> Dimanche | <input type="checkbox"/> Lundi<br><input type="checkbox"/> Mardi<br><input type="checkbox"/> Mercredi<br><input type="checkbox"/> Jeudi<br><input type="checkbox"/> Vendredi<br><input type="checkbox"/> Samedi<br><input type="checkbox"/> Dimanche | <input type="checkbox"/> Lundi<br><input type="checkbox"/> Mardi<br><input type="checkbox"/> Mercredi<br><input type="checkbox"/> Jeudi<br><input type="checkbox"/> Vendredi<br><input type="checkbox"/> Samedi<br><input type="checkbox"/> Dimanche |
| Début<br>08 : 00 ▼<br>Fin<br>17 : 00 ▼  | Début<br>08 : 00 ▼<br>Fin<br>17 : 00 ▼   | Début<br>08 : 00 ▼<br>Fin<br>17 : 00 ▼   | Début<br>08 : 00 ▼<br>Fin<br>17 : 00 ▼   |

## 5.0 Dysfonctionnements

| Image   | Alerte                               | Où?      | Signification   |
|---|--------------------------------------|----------|---|
|   | #####°C                              | écran    | Pas de capteur connecté   |
|   | Erreur de redémarrage Non            | écran    | L'Infra a un problème. La zone endommagée est affichée sur l'écran. |
|  | La LED de droite est allumé en rouge | écran    | L'Infra a un problème. La zone endommagée est affichée sur l'écran. |
|  | ----- °C                             | Internet | Pas de capteur connecté   |

## 6.0 Le recyclage

Quand le Pintherm Infra HE Connect est remplacé ou retiré, il doit être recyclé ou mis dans une décharge selon les réglementations nationales ou locales.

## 7.0 Accessoires

[1] Liste Modbus

[2] de [6] Diagramme électrique

# Lees dit document door voordat u begint met de installatie en ingebruikname

NL

## Waarschuwing!

Een foutief uitgevoerde installatie, wijziging of reparatie kan leiden tot materiële schade of verwondingen. Alle werkzaamheden moeten door erkende, gekwalificeerde vakmensen worden uitgevoerd. Indien het toestel niet volgens voorschrift wordt geplaatst, vervalt de garantie. Dit apparaat is niet bedoeld voor gebruik door personen (inclusief kinderen) met verminderde lichamelijke, zintuiglijke of geestelijke vermogens, of gebrek aan ervaring en kennis, tenzij zij onder toezicht staan of worden geïnstrueerd over het gebruik van het apparaat door een persoon die verantwoordelijk is voor hun veiligheid. Kinderen moeten gecontroleerd worden om ervoor te zorgen dat ze niet met het apparaat spelen.

## 1.0 Algemeen

### 1.1 Wijzigingen voorbehouden

De fabrikant streeft continu naar verbetering van haar producten, en behoudt zich het recht voor om zonder voorafgaande kennisgeving veranderingen in de specificaties aan te brengen. De technische details worden als correct verondersteld maar vormen geen basis voor een contract of garantie. Alle orders worden geaccepteerd onder de standaard condities van onze algemene verkoop- en leveringsvoorwaarden (op aanvraag leverbaar). De informatie in dit document kan zonder voorafgaande kennisgeving worden gewijzigd. De meest recente versie van deze handleiding is altijd beschikbaar op [www.mark.nl/downloads](http://www.mark.nl/downloads).

### 1.2 Algemene waarschuwingen

De installatie moet voldoen aan de geldende plaatselijke en/of landelijke voorschriften. Laat daarom de Pintherm Infra HE Connect door een vakbekwaam en gekwalificeerd installateur installeren met inachtneming van de nationale en internationale regelgeving. Bij een foutieve installatie, afregeling, wijziging, onderhoudsafhandeling of herstelling vervalt de garantie.

## 2.0 Technische gegevens

### 2.1 Technische gegevens Pintherm Infra HE Connect

- Levering: Schakelkast met display
- Afmeting (bxhxd): 376 x 300 x 120mm
- Beschermingsklasse: IP54
- Montage Schakelkast: Opbouw / wandmontage
- Maximaal aantal Infra's: 8
- Instelbereik temperatuur: 2...40°C per 0,5°C.
- Bedrijfswijze keuze: Automatisch, continu dag, continu nacht of continu uit
- Dag-/nachttemperatuur bewaking met aflezing van de actuele ruimtetemperatuur op het display
- Automatische zomer-/wintertijdaanpassing.

- Regeling: modulerend
- Schakelklok met weekprogramma (7 schakelblokken)
- Overwerktimer: 0-180 min.
- Signalering van een brander storing.
- Resetmogelijkheid voor ontgrendeling van een storing.
- Pincodebeveiliging om o.a. de schakeltijden en temperaturen te kunnen wijzigen.
- Talen: Engels, Frans, Duits en Nederlands
- IJking temperatuursensor: instelbaar van -3°C tot +3°C per 0,5°C instelbaar
- Voeding: 230Vac / 50Hz
- Voorzekering: 10A
- Modbus TCP/IP
- Ingebouwde webserver

## 2.2 Technische gegevens externe zwarte bol voeler

- Type aanduiding : RSTF NTC 10K 3435
- Artikelnummer : 06 29 002
- Weerstand : NTC 10K 3435
- Afmeting (bxhxd) : 85 x 85 x 27mm (40 mm incl. hoogte zwarte bol)
- Gewicht : 42 gram
- Elektrische aansluiting : 0.14-1.5mm<sup>2</sup>
- Beschermingsgraad : IP30

## 2.3 Weerstandstabel externe zwarte bol voeler

| NTC 10K 3435 |        |     |        |
|--------------|--------|-----|--------|
| °C           | kΩ     | °C  | kΩ     |
| -25          | 86,180 | +10 | 17,950 |
| -20          | 67,640 | +15 | 14,680 |
| -15          | 53,310 | +20 | 12,090 |
| -10          | 42,390 | +25 | 10,000 |
| -5           | 33,850 | +30 | 8,314  |
| 0            | 27,250 | +35 | 6,941  |
| +5           | 22,030 | +40 | 5,829  |

## 2.4 Fabrieksinstellingen Pintherm Infra HE Connect

- Menu code : 1000
- Schakeltijden : Block 1 MA, DI, WO, DO, VR 08:00-17:00 uur  
Block 2 t/m 7 uit
- Ruimtetemperatuur : Dagtemperatuur 18°C  
Nachttemperatuur 08°C
- IJking : +0.0



## 3.0 Installatie

### 3.1 Montage PinTherm Infra HE Connect

Bepaal een geschikte plaats om de PinTherm Infra HE Connect te monteren. Bevestig de PinTherm Infra HE Connect op een stevige ondergrond, die minimaal 4kg kan dragen. Geadviseerd wordt om de PinTherm Infra HE Connect op een afstand van  $\pm 1.5\text{m}$  vanaf de vloer te plaatsen, op een goed bereikbare plaats.

Pas ten behoeve van de kabeldoorvoer kabelwartels toe voorzien van trekontlasting, met een minimale brandklasse van UL94V2. Controleer voor het aansluiten van de bekabeling of de spanning is uitgeschakeld. Indien dit niet het geval is dient eerst de spanning te worden uitgeschakeld voordat u verder gaat. Bij het uitschakelen van de spanning, van het aan te sluiten toestel, dient hierbij ook het technisch boek/bedieningshandleiding van het toestel in acht te worden genomen.

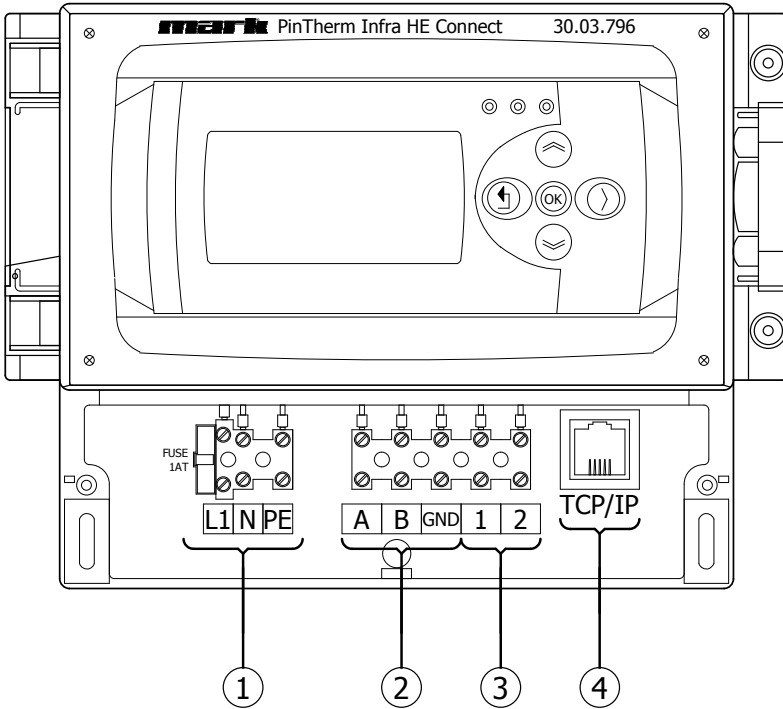
Sluit de PinTherm Infra HE Connect aan volgens een van de meegeleverde elektrische schema's welke achterin dit technisch boek staan.

| Diameter           | Lengte    |
|--------------------|-----------|
| 0.8mm <sup>2</sup> | 80 meter  |
| 1.0mm <sup>2</sup> | 100 meter |
| 1.5mm <sup>2</sup> | 150 meter |



Hiervoor een afgeschermd datakabel gebruiken.  
Zie technisch boek van de Infra HE.

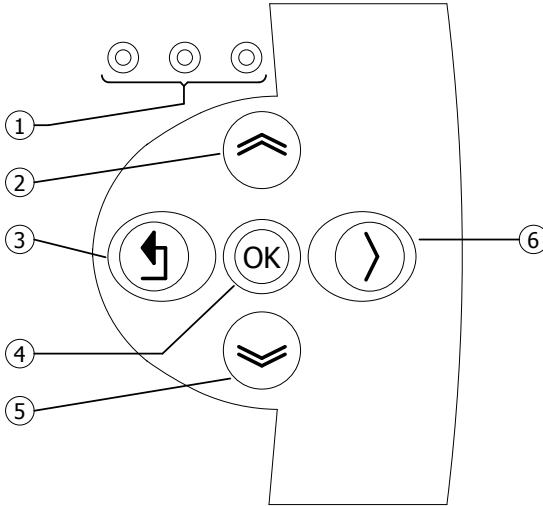
### 3.2 Aansluitmogelijkheden



|   |                               |
|---|-------------------------------|
| 1 | Voeding 1~230V +N +PE         |
| 2 | Infra HE (Modbus)             |
| 3 | Aansluiting zwarte bol voeler |
| 4 | TCP/IP                        |











## 4.0 Bediening en display

### 4.1 Bediening



|   |  |
|---|--|
| 1 | <ul style="list-style-type: none"><li>• LED rood = storing</li><li>• LED groen = in bedrijf</li></ul>  |
| 2 | <ul style="list-style-type: none"><li>• Scroll omhoog</li><li>• Terugkeren naar vorige pagina</li><li>• Verhoog waarde/wijzig een instelling</li><li>• Ga naar volgende</li></ul>  |
| 3 | <ul style="list-style-type: none"><li>• Exit menu pagina/ga terug naar vorig menu</li><li>• Verplaats cursor naar links in de edit mode</li><li>• (Druk en houd vast) Verlaat edit mode zonder wijzigingen aan te brengen</li></ul>                      |
| 4 | <ul style="list-style-type: none"><li>• Ga naar volgende level/menu/edit mode (open folder, subfolder, parameter setting)</li><li>• Openen en bevestigen van de instelling/parameter setting.</li><li>• Bevestigen van de wijziging/instelling</li></ul> |
| 5 | <ul style="list-style-type: none"><li>• Scroll omlaag</li><li>• Ga naar volgende pagina</li><li>• Verlaag waarde / wijzig een instelling</li><li>• Ga naar vorige</li></ul>  |
| 6 | <ul style="list-style-type: none"><li>• Verplaats cursor naar rechts in de edit mode</li></ul>   |

## 4.2 Menustructuur

|    |                 |               |                |   |                   |              |                   |       |                   |               |  |                 |       |           |     |   |     |                   |  |   |         |         |               |       |  |               |         |  |       |       |  |  |     |       |  |   |         |         |               |       |  |               |         |  |       |       |  |
|---|-----------------|---------------|----------------|---|-------------------|--------------|-------------------|-------|-------------------|---------------|--|-----------------|-------|-----------|-----|---|-----|-------------------|--|---|---------|---------|---------------|-------|--|---------------|---------|--|-------|-------|--|--|-----|-------|--|---|---------|---------|---------------|-------|--|---------------|---------|--|-------|-------|--|
| <table border="1" data-bbox="128 295 400 438"> <tr> <td>Din</td> <td>12:06</td> <td></td> </tr> <tr> <td></td> <td>21.5 °C</td> <td>18.0 °C</td> </tr> <tr> <td>Bedrijfswijze</td> <td colspan="2">: Dag</td> </tr> <tr> <td>Overwerktimer</td> <td colspan="2">: 0 min</td> </tr> <tr> <td>Reset</td> <td colspan="2">: Nee</td> </tr> </table> <p>Aan: vlam<br/>Uit: geen vlam</p> | Din             | 12:06         |                |  | 21.5 °C           | 18.0 °C      | Bedrijfswijze     | : Dag |                   | Overwerktimer | : 0 min  |                 | Reset | : Nee     |     | <table border="1" data-bbox="435 295 704 438"> <tr> <td>Din</td> <td>12:06</td> <td></td> </tr> <tr> <td></td> <td>#### °C</td> <td>18.0 °C</td> </tr> <tr> <td>Bedrijfswijze</td> <td colspan="2">: Dag</td> </tr> <tr> <td>Overwerktimer</td> <td colspan="2">: 0 min</td> </tr> <tr> <td>Reset</td> <td colspan="2">: Nee</td> </tr> </table> <p>####: Geen voeler aangesloten.</p> | Din | 12:06             |  |  | #### °C | 18.0 °C | Bedrijfswijze | : Dag |  | Overwerktimer | : 0 min |  | Reset | : Nee |  | <table border="1" data-bbox="742 295 1011 438"> <tr> <td>Din</td> <td>12:06</td> <td></td> </tr> <tr> <td></td> <td>21.5 °C</td> <td>18.0 °C</td> </tr> <tr> <td>Bedrijfswijze</td> <td colspan="2">: Dag</td> </tr> <tr> <td>Overwerktimer</td> <td colspan="2">: 0 min</td> </tr> <tr> <td>Reset</td> <td colspan="2">: Nee</td> </tr> </table> <p>21.5 °C: Gemeten temperatuur.<br/>18.0 °C: Setpoint.</p> | Din | 12:06 |  |  | 21.5 °C | 18.0 °C | Bedrijfswijze | : Dag |  | Overwerktimer | : 0 min |  | Reset | : Nee |  |
| Din   | 12:06           |               |                |   |                   |              |                   |       |                   |               |  |                 |       |           |     |   |     |                   |  |   |         |         |               |       |  |               |         |  |       |       |  |  |     |       |  |   |         |         |               |       |  |               |         |  |       |       |  |
|    | 21.5 °C         | 18.0 °C       |                |   |                   |              |                   |       |                   |               |  |                 |       |           |     |   |     |                   |  |   |         |         |               |       |  |               |         |  |       |       |  |  |     |       |  |   |         |         |               |       |  |               |         |  |       |       |  |
| Bedrijfswijze   | : Dag           |               |                |   |                   |              |                   |       |                   |               |  |                 |       |           |     |   |     |                   |  |   |         |         |               |       |  |               |         |  |       |       |  |  |     |       |  |   |         |         |               |       |  |               |         |  |       |       |  |
| Overwerktimer   | : 0 min         |               |                |   |                   |              |                   |       |                   |               |  |                 |       |           |     |   |     |                   |  |   |         |         |               |       |  |               |         |  |       |       |  |  |     |       |  |   |         |         |               |       |  |               |         |  |       |       |  |
| Reset   | : Nee           |               |                |   |                   |              |                   |       |                   |               |  |                 |       |           |     |   |     |                   |  |   |         |         |               |       |  |               |         |  |       |       |  |  |     |       |  |   |         |         |               |       |  |               |         |  |       |       |  |
| Din   | 12:06           |               |                |   |                   |              |                   |       |                   |               |  |                 |       |           |     |   |     |                   |  |   |         |         |               |       |  |               |         |  |       |       |  |  |     |       |  |   |         |         |               |       |  |               |         |  |       |       |  |
|    | #### °C         | 18.0 °C       |                |   |                   |              |                   |       |                   |               |  |                 |       |           |     |   |     |                   |  |   |         |         |               |       |  |               |         |  |       |       |  |  |     |       |  |   |         |         |               |       |  |               |         |  |       |       |  |
| Bedrijfswijze   | : Dag           |               |                |   |                   |              |                   |       |                   |               |  |                 |       |           |     |   |     |                   |  |   |         |         |               |       |  |               |         |  |       |       |  |  |     |       |  |   |         |         |               |       |  |               |         |  |       |       |  |
| Overwerktimer   | : 0 min         |               |                |   |                   |              |                   |       |                   |               |  |                 |       |           |     |   |     |                   |  |   |         |         |               |       |  |               |         |  |       |       |  |  |     |       |  |   |         |         |               |       |  |               |         |  |       |       |  |
| Reset   | : Nee           |               |                |   |                   |              |                   |       |                   |               |  |                 |       |           |     |   |     |                   |  |   |         |         |               |       |  |               |         |  |       |       |  |  |     |       |  |   |         |         |               |       |  |               |         |  |       |       |  |
| Din   | 12:06           |               |                |   |                   |              |                   |       |                   |               |  |                 |       |           |     |   |     |                   |  |   |         |         |               |       |  |               |         |  |       |       |  |  |     |       |  |   |         |         |               |       |  |               |         |  |       |       |  |
|    | 21.5 °C         | 18.0 °C       |                |   |                   |              |                   |       |                   |               |  |                 |       |           |     |   |     |                   |  |   |         |         |               |       |  |               |         |  |       |       |  |  |     |       |  |   |         |         |               |       |  |               |         |  |       |       |  |
| Bedrijfswijze   | : Dag           |               |                |   |                   |              |                   |       |                   |               |  |                 |       |           |     |   |     |                   |  |   |         |         |               |       |  |               |         |  |       |       |  |  |     |       |  |   |         |         |               |       |  |               |         |  |       |       |  |
| Overwerktimer   | : 0 min         |               |                |   |                   |              |                   |       |                   |               |  |                 |       |           |     |   |     |                   |  |   |         |         |               |       |  |               |         |  |       |       |  |  |     |       |  |   |         |         |               |       |  |               |         |  |       |       |  |
| Reset   | : Nee           |               |                |   |                   |              |                   |       |                   |               |  |                 |       |           |     |   |     |                   |  |   |         |         |               |       |  |               |         |  |       |       |  |  |     |       |  |   |         |         |               |       |  |               |         |  |       |       |  |
| <table border="1" data-bbox="128 550 400 694"> <tr> <th colspan="2">Infra HE status</th> </tr> <tr> <td>1 Aan</td> <td>100%</td> </tr> <tr> <td>2 geen verbinding</td> <td></td> </tr> <tr> <td>3 geen verbinding</td> <td></td> </tr> <tr> <td>4 geen verbinding</td> <td></td> </tr> </table>   | Infra HE status |               | 1 Aan          | 100%  | 2 geen verbinding |              | 3 geen verbinding |       | 4 geen verbinding |               | <table border="1" data-bbox="435 550 704 694"> <tr> <th colspan="2">Infra HE status</th> </tr> <tr> <td>1 Storing</td> <td>233</td> </tr> <tr> <td>2 geen verbinding</td> <td></td> </tr> <tr> <td>3 geen verbinding</td> <td></td> </tr> <tr> <td>4 geen verbinding</td> <td></td> </tr> </table> | Infra HE status |       | 1 Storing | 233 | 2 geen verbinding   |     | 3 geen verbinding |  | 4 geen verbinding   |         |         |               |       |  |               |         |  |       |       |  |  |     |       |  |   |         |         |               |       |  |               |         |  |       |       |  |
| Infra HE status   |                 |               |                |   |                   |              |                   |       |                   |               |  |                 |       |           |     |   |     |                   |  |   |         |         |               |       |  |               |         |  |       |       |  |  |     |       |  |   |         |         |               |       |  |               |         |  |       |       |  |
| 1 Aan   | 100%            |               |                |   |                   |              |                   |       |                   |               |  |                 |       |           |     |   |     |                   |  |   |         |         |               |       |  |               |         |  |       |       |  |  |     |       |  |   |         |         |               |       |  |               |         |  |       |       |  |
| 2 geen verbinding   |                 |               |                |   |                   |              |                   |       |                   |               |  |                 |       |           |     |   |     |                   |  |   |         |         |               |       |  |               |         |  |       |       |  |  |     |       |  |   |         |         |               |       |  |               |         |  |       |       |  |
| 3 geen verbinding   |                 |               |                |   |                   |              |                   |       |                   |               |  |                 |       |           |     |   |     |                   |  |   |         |         |               |       |  |               |         |  |       |       |  |  |     |       |  |   |         |         |               |       |  |               |         |  |       |       |  |
| 4 geen verbinding   |                 |               |                |   |                   |              |                   |       |                   |               |  |                 |       |           |     |   |     |                   |  |   |         |         |               |       |  |               |         |  |       |       |  |  |     |       |  |   |         |         |               |       |  |               |         |  |       |       |  |
| Infra HE status   |                 |               |                |   |                   |              |                   |       |                   |               |  |                 |       |           |     |   |     |                   |  |   |         |         |               |       |  |               |         |  |       |       |  |  |     |       |  |   |         |         |               |       |  |               |         |  |       |       |  |
| 1 Storing   | 233             |               |                |   |                   |              |                   |       |                   |               |  |                 |       |           |     |   |     |                   |  |   |         |         |               |       |  |               |         |  |       |       |  |  |     |       |  |   |         |         |               |       |  |               |         |  |       |       |  |
| 2 geen verbinding   |                 |               |                |   |                   |              |                   |       |                   |               |  |                 |       |           |     |   |     |                   |  |   |         |         |               |       |  |               |         |  |       |       |  |  |     |       |  |   |         |         |               |       |  |               |         |  |       |       |  |
| 3 geen verbinding   |                 |               |                |   |                   |              |                   |       |                   |               |  |                 |       |           |     |   |     |                   |  |   |         |         |               |       |  |               |         |  |       |       |  |  |     |       |  |   |         |         |               |       |  |               |         |  |       |       |  |
| 4 geen verbinding   |                 |               |                |   |                   |              |                   |       |                   |               |  |                 |       |           |     |   |     |                   |  |   |         |         |               |       |  |               |         |  |       |       |  |  |     |       |  |   |         |         |               |       |  |               |         |  |       |       |  |
| <h3>Status Scherm</h3>  |                 |               |                |   |                   |              |                   |       |                   |               |  |                 |       |           |     |   |     |                   |  |   |         |         |               |       |  |               |         |  |       |       |  |  |     |       |  |   |         |         |               |       |  |               |         |  |       |       |  |
| <table border="1" data-bbox="128 790 400 933"> <tr> <th>Wachtwoord</th> </tr> <tr> <td>■■■■■■</td> </tr> </table>   | Wachtwoord      | ■■■■■■        |                |   |                   |              |                   |       |                   |               |  |                 |       |           |     |   |     |                   |  |   |         |         |               |       |  |               |         |  |       |       |  |  |     |       |  |   |         |         |               |       |  |               |         |  |       |       |  |
| Wachtwoord  |                 |               |                |   |                   |              |                   |       |                   |               |  |                 |       |           |     |   |     |                   |  |   |         |         |               |       |  |               |         |  |       |       |  |  |     |       |  |   |         |         |               |       |  |               |         |  |       |       |  |
| ■■■■■■  |                 |               |                |   |                   |              |                   |       |                   |               |  |                 |       |           |     |   |     |                   |  |   |         |         |               |       |  |               |         |  |       |       |  |  |     |       |  |   |         |         |               |       |  |               |         |  |       |       |  |
| <table border="1" data-bbox="128 965 400 1109"> <tr> <th>Menu</th> </tr> <tr> <td>Temperatuur</td> </tr> <tr> <td>Klok programma</td> </tr> <tr> <td>Bedrijfswijze</td> </tr> <tr> <td>Locatie</td> </tr> <tr> <td>Systeem Menu</td> </tr> </table>   | Menu            | Temperatuur   | Klok programma | Bedrijfswijze   | Locatie           | Systeem Menu |                   |       |                   |               |  |                 |       |           |     |   |     |                   |  |   |         |         |               |       |  |               |         |  |       |       |  |  |     |       |  |   |         |         |               |       |  |               |         |  |       |       |  |
| Menu  |                 |               |                |   |                   |              |                   |       |                   |               |  |                 |       |           |     |   |     |                   |  |   |         |         |               |       |  |               |         |  |       |       |  |  |     |       |  |   |         |         |               |       |  |               |         |  |       |       |  |
| Temperatuur   |                 |               |                |   |                   |              |                   |       |                   |               |  |                 |       |           |     |   |     |                   |  |   |         |         |               |       |  |               |         |  |       |       |  |  |     |       |  |   |         |         |               |       |  |               |         |  |       |       |  |
| Klok programma  |                 |               |                |   |                   |              |                   |       |                   |               |  |                 |       |           |     |   |     |                   |  |   |         |         |               |       |  |               |         |  |       |       |  |  |     |       |  |   |         |         |               |       |  |               |         |  |       |       |  |
| Bedrijfswijze   |                 |               |                |   |                   |              |                   |       |                   |               |  |                 |       |           |     |   |     |                   |  |   |         |         |               |       |  |               |         |  |       |       |  |  |     |       |  |   |         |         |               |       |  |               |         |  |       |       |  |
| Locatie   |                 |               |                |   |                   |              |                   |       |                   |               |  |                 |       |           |     |   |     |                   |  |   |         |         |               |       |  |               |         |  |       |       |  |  |     |       |  |   |         |         |               |       |  |               |         |  |       |       |  |
| Systeem Menu  |                 |               |                |   |                   |              |                   |       |                   |               |  |                 |       |           |     |   |     |                   |  |   |         |         |               |       |  |               |         |  |       |       |  |  |     |       |  |   |         |         |               |       |  |               |         |  |       |       |  |
| <table border="1" data-bbox="128 1141 400 1284"> <tr> <th>Temperatuur</th> </tr> <tr> <td>Dag : 13.0 °C</td> </tr> <tr> <td>Nacht : 8.0 °C</td> </tr> <tr> <td>Calibratie : 0 °C</td> </tr> </table>  | Temperatuur     | Dag : 13.0 °C | Nacht : 8.0 °C | Calibratie : 0 °C   |                   |              |                   |       |                   |               |  |                 |       |           |     |   |     |                   |  |   |         |         |               |       |  |               |         |  |       |       |  |  |     |       |  |   |         |         |               |       |  |               |         |  |       |       |  |
| Temperatuur   |                 |               |                |   |                   |              |                   |       |                   |               |  |                 |       |           |     |   |     |                   |  |   |         |         |               |       |  |               |         |  |       |       |  |  |     |       |  |   |         |         |               |       |  |               |         |  |       |       |  |
| Dag : 13.0 °C   |                 |               |                |   |                   |              |                   |       |                   |               |  |                 |       |           |     |   |     |                   |  |   |         |         |               |       |  |               |         |  |       |       |  |  |     |       |  |   |         |         |               |       |  |               |         |  |       |       |  |
| Nacht : 8.0 °C  |                 |               |                |   |                   |              |                   |       |                   |               |  |                 |       |           |     |   |     |                   |  |   |         |         |               |       |  |               |         |  |       |       |  |  |     |       |  |   |         |         |               |       |  |               |         |  |       |       |  |
| Calibratie : 0 °C   |                 |               |                |   |                   |              |                   |       |                   |               |  |                 |       |           |     |   |     |                   |  |   |         |         |               |       |  |               |         |  |       |       |  |  |     |       |  |   |         |         |               |       |  |               |         |  |       |       |  |
| <p>Instellen van de gewenste dagtemperatuur, nachttemperatuur en calibratie</p>   |                 |               |                |   |                   |              |                   |       |                   |               |  |                 |       |           |     |   |     |                   |  |   |         |         |               |       |  |               |         |  |       |       |  |  |     |       |  |   |         |         |               |       |  |               |         |  |       |       |  |

|   |  |  |  |
|---|--|--|--|
| Klok programma<br>Ma <input checked="" type="checkbox"/> Di <input checked="" type="checkbox"/> Wo <input checked="" type="checkbox"/> Do <input checked="" type="checkbox"/> Vr <input checked="" type="checkbox"/> Za <input type="checkbox"/> Zo <input type="checkbox"/><br>Begin 8 : 00 Eind 17 : 00<br>Blok 1 Opslaan : Nee |  |  |  |
|---|--|--|--|

**Klokprogramma**

Instellen van het klokprogramma: Tijdsblokken waarin de regelaar naar dagtemperatuur moet schakelen. Mogelijkheid voor het programmeren van 7 programmablokken. Per blok moeten de weekdays en de begin- en eindtijd worden geselecteerd.

|                              |  |  |  |
|------------------------------|--|--|--|
| Bedrijfswijze<br>mode : auto |  |  |  |
|------------------------------|--|--|--|

**Bedrijfswijze**

Hier kan ingesteld worden welke bedrijfswijze gevolgd moet worden

- auto (klokprogramma wordt gevolgd),
- continu dag,
- continu nacht,
- uit

|                   |  |  |  |
|-------------------|--|--|--|
| Locatie<br>zone 1 |  |  |  |
|-------------------|--|--|--|

**Locatie**

Elke locatie kan een eigen benaming krijgen, standaard ingesteld: zone 1

**4.3 Het systeem menu**

|   |  |  |  |
|---|--|--|--|
| Systeem menu<br>Datum / Tijd<br>Taal<br>IP adres<br>Wachtwoord wijzigen<br>Minimale aan tijd<br>Software Versie |  |  |  |
|---|--|--|--|

**Systeem menu**

In dit menu kunnen de datum/tijd, taalkeuze, IP adres, en wachtwoord worden gewijzigd. Tevens kan de software versie worden opgevraagd.

|               |              |
|---------------|--------------|
| Datum / Tijd  |              |
| 19 / 07 / 21  | 14 : 15 : 55 |
| 25 / 07 / 18  | 0 : 00 : 00  |
| Maa           |              |
| Opslaan : Nee |              |

### Datum/tijd

Instellen van de actuele datum en tijd.

|   |
|---|
| Taal  |
| 1 - English                                   |
| 2 - Nederlands                                |
| 3 - Français                                  |
| 4 - Deutsch                                   |
| Taalkeuze <input checked="" type="checkbox"/> |

### Taal

Gewenste taal selecteren (English, Nederlands, Français, Deutsch).

|                         |
|-------------------------|
| IP adres                |
| IP 192 . 168 . 1 . 100  |
| Sub 255 . 255 . 255 . 0 |
| Opslaan : Nee           |

### IP adres

Instellen IP-adres en Subnetmask

*Opmerking: Na het opslaan van het IP adres zal de regelaar opnieuw opstarten.*

|                     |
|---------------------|
| Wachtwoord wijzigen |
| 1000                |

### Wachtwoord wijzigen

Hier kan ingestelde wachtwoord gewijzigd worden om in het menu te komen of om via de webpagina in te loggen. (Wachtwoord standaard ingesteld op 1000).





|                   |
|-------------------|
| Minimale aan tijd |
| Tijd : 20min      |

### Minimale inschakelduur

Bij de opstart gaat het toestel een minimale periode, in de bedrijfsstand hoog, in bedrijf. Fabriekmatige instelling: 20 minuten.

|  |  |  |
|--|--|--|
| <div style="border: 1px solid black; padding: 10px; width: fit-content; margin: 0 auto;"> Software Versie<br/>1.0 </div> |  |  |
| <b>Software versie</b><br>De actuele softwareversie  |  |  |

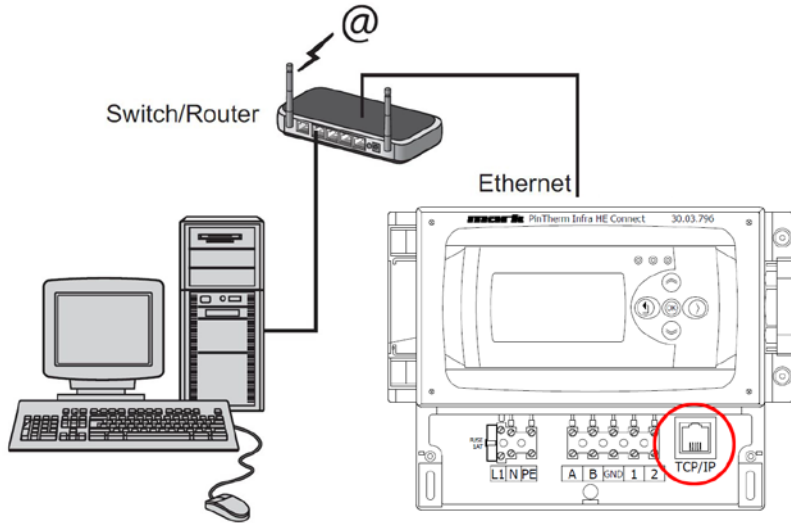
**4.4 Wachtwoord resetten naar fabrieksinstelling**

|  |  |
|--|--|
| <p>1 Om het wachtwoord te resetten naar de fabrieksinstelling dient men eerst de spanning van de thermostaat af te halen en vervolgens opnieuw erop te zetten.</p>     |  |
| <p>2 Druk in het openingsscherm 2 seconden op .</p>                                   |  |
| <p>3 Het scherm “Wachtwoord Resetten” wordt vertoond. Selecteer “Ja” en druk op .</p> |  |
| <p>Het wachtwoord is gereset naar fabrieksinstelling. Er wordt teruggekeerd naar het basisscherm.</p>  |  |

#### 4.5 Bediening met een computer

De unit kan met een PC of laptop worden bediend.

Verbind de PC of laptop d.m.v. een ethernet aansluiting op het display.



Nadat u de verbinding heeft gemaakt start u uw internetbrowser\* op en voert u het IP adres in. (Standaard ingestelde adres: 192.168.1.100)

Wanneer u verbinding heeft zal een inlogscherf in beeld verschijnen. Voer de gebruikersnaam en het wachtwoord in.

Gebruikersnaam: pintherm  
Wachtwoord: 1000 (standaard af fabriek)\*\*

Wanneer de inloggegevens juist zijn ingevoerd verschijnt het tabblad status/instellingen in uw browser. Via de tabbladen aan de bovenzijde van het scherm kan vervolgens de gewenste taal worden gekozen of het menu worden geopend om het klokprogramma op het scherm te tonen en te wijzigen.

\* De fabrikant adviseert als internetbrowser Google Chrome of Mozilla Firefox.

\*\* Indien u deze heeft gewijzigd via het Display van de Pintherm Infra HE Connect in het menu/ systeemmenu/wachtwoord wijzigen dient u het gewijzigde wachtwoord in te voeren.



## 4.5.1 Dashboard

**mark** Dashboard Status **Temperatuur** Klokprogramma Systeem Netwerk

**Dashboard**

|               |                       |               |
|---------------|-----------------------|---------------|
| Locatie       | Zone 1                |               |
| Bedrijfswijze | Dag                   | Klok (auto) ▼ |
| Temperatuur   | 24.0                  | °C            |
| Setpoint      | 18.0                  | °C            |
| Overwerktijd  | 0 min.                | ▼             |
| Warmtevraag   | <input type="radio"/> |               |
| Foutstatus    | <input type="radio"/> |               |

NL

## 4.5.2 Status menu

**mark** Dashboard **Status** Temperatuur Klokprogramma Systeem Netwerk

**Status**

|            |                 |
|------------|-----------------|
| Infra HE 1 | Uit             |
| Infra HE 2 | geen verbinding |
| Infra HE 3 | geen verbinding |
| Infra HE 4 | geen verbinding |

## 4.5.3 Menu temperatuur

**mark** Dashboard Status **Temperatuur** Klokprogramma Systeem Netwerk

**Temperatuurinstellingen**

**Temperatuur**

|                  |           |
|------------------|-----------|
| Dagtemperatuur   | 18.0 ▼ °C |
| Nachttemperatuur | 8.0 ▼ °C  |

**Kalibratie**

|           |       |
|-----------|-------|
| Correctie | 0 ▼ K |
|-----------|-------|

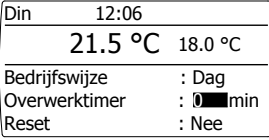
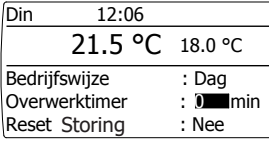


## 4.5.4 Menu klokprogramma

**mark** Dashboard Status Temperatuur **Klokprogramma** Systeem Netwerk

**Klokprogramma**

| Programma 1  | Programma 2   | Programma 3   | Programma 4   |
|--|---|---|---|
| <input checked="" type="checkbox"/> Maandag<br><input checked="" type="checkbox"/> Dinsdag<br><input checked="" type="checkbox"/> Woensdag<br><input checked="" type="checkbox"/> Donderdag<br><input checked="" type="checkbox"/> Vrijdag<br><input type="checkbox"/> Zaterdag<br><input type="checkbox"/> Zondag | <input type="checkbox"/> Maandag<br><input type="checkbox"/> Dinsdag<br><input type="checkbox"/> Woensdag<br><input type="checkbox"/> Donderdag<br><input type="checkbox"/> Vrijdag<br><input type="checkbox"/> Zaterdag<br><input type="checkbox"/> Zondag | <input type="checkbox"/> Maandag<br><input type="checkbox"/> Dinsdag<br><input type="checkbox"/> Woensdag<br><input type="checkbox"/> Donderdag<br><input type="checkbox"/> Vrijdag<br><input type="checkbox"/> Zaterdag<br><input type="checkbox"/> Zondag | <input type="checkbox"/> Maandag<br><input type="checkbox"/> Dinsdag<br><input type="checkbox"/> Woensdag<br><input type="checkbox"/> Donderdag<br><input type="checkbox"/> Vrijdag<br><input type="checkbox"/> Zaterdag<br><input type="checkbox"/> Zondag |
| Start<br>08 ▼ : 00 ▼   | Start<br>08 ▼ : 00 ▼  | Start<br>08 ▼ : 00 ▼  | Start<br>08 ▼ : 00 ▼  |
| Stop<br>17 ▼ : 00 ▼  | Stop<br>17 ▼ : 00 ▼   | Stop<br>17 ▼ : 00 ▼   | Stop<br>17 ▼ : 00 ▼   |

## 5.0 Storingen

| Afbeelding  | Melding                    | Waar            | Betekenis  |
|---|----------------------------|-----------------|--|
|  | #####°C                    | Display         | Geen voeler aangesloten.   |
|  | Reset error: No            | Display         | Er staat een Infra op storing.<br>Via het status scherm is te zien in welke zone dit is. |
|  | De rechter LED brandt rood | Display         | Er staat een Infra op storing.<br>Via het status scherm is te zien in welke zone dit is. |
|  | ----- °C                   | Internet-brower | Geen voeler aangesloten.   |

## 6.0 Afdanken

Wanneer de Pintherm Infra HE Connect wordt vervangen of verwijderd dient deze conform landelijke en/of plaatselijke verordeningen te worden gerecycled of vernietigd.

## 7.0 Bijlage

- [1] Modbus-lijst
- [2] t/m [6] Elektrische schema's

# Citiți acest document înainte de a începe instalarea și operarea

## Avertisment!

Instalarea, setarea, modificarea, repararea sau întreținerea incorectă poate duce la daune materiale sau la răni. Toate activitățile trebuie efectuate de către personal calificat, aprobat. Dacă dispozitivul nu este așezat conform instrucțiunilor, garanția va fi anulată. Acest aparat nu este destinat utilizării de către copii sau persoane cu un handicap fizic, senzorial sau mental, sau care nu au experiența necesară, cu excepția cazurilor în care sunt supravegheate, sau au fost instruite să folosească aparatul, de către o persoană responsabilă cu siguranța lor. Copiii trebuie supravegheați, pentru a vă asigura că nu se joacă cu aparatul.

RO

## 1.0 Informații generale

### 1.1 Modificări

Producătorul se angajează să-și îmbunătățească constant produsele și își rezervă dreptul de a aduce modificări în specificații fără notificare prealabilă. Detaliile tehnice se presupun a fi corecte, însă nu stau la baza unui contract sau a unei garanții. Toate comenzile sunt acceptate în conformitate cu termenii standard ai condițiilor noastre de vânzare și livrare (disponibile la cerere).

Informațiile din acest document pot fi modificate fara notificare. Versiunea cea mai recenta a acestui manual este intotdeauna disponibila la adresa [www.markclimate.ro/downloads](http://www.markclimate.ro/downloads).

### 1.2 Atenționări generale

Instalarea trebuie să respecte reglementările locale și/sau naționale actuale. Prin urmare, Pintherm Infra HE Connect trebuie instalat de către un instalator competent și calificat, în conformitate cu legislația națională și internațională. În cazul instalării, calibrării, modificării, întreținerii sau reparațiilor defectuoase, garanția încetează să se mai aplice.

## 2.0 Detalii tehnice

### 2.1 Detalii tehnice Pintherm Infra HE Connect

- Livrare: Panou de control cu afișaj extern
- Dimensiuni (Lxlxî): 376 x 300 x 120 mm
- Grad de protecție: IP54
- Montare cutie de comutare: încorporat / montare pe perete
- Număr de Infra HE: 8
- Interval de temperatură: 2...40°C la 0,5°C.
- Opțiuni de operare: automată, zi continuă, noapte continuă sau oprire continuă
- Monitorizarea temperaturii zi/noapte cu citirea temperaturii reale a camerei pe display
- Comutare automată între ora de vară/iarnă
- Control: modulant
- Comutator orar cu program săptămânal (7 blocuri de comutare)
- Cronometru pentru ore suplimentare: 0-180 min. pe zonă

- Semnalizarea defecțiunii arzătorului
- Opțiune de resetare pentru a elibera o defecțiune a arzătorului pe zonă
- Securitate PIN pentru a modifica, de exemplu, timpii de comutare și temperaturile
- Opțiuni limbă: EN/FR/DE/NL
- Sensor de temperatură de calibrare: interval de la -3°C la +3°C la 0,5°C
- Alimentare electrică: 230Vac / 50Hz
- Siguranta: 10A
- Modbus TCP/IP
- Server web încorporat

## 2.2 Detalii tehnice pentru senzorul glob

- Nume tip : RSTF NTC 10K 3435
- Număr articol : 06 29 002
- Rezistență : NTC 10K 3435
- Dimensiuni (Lxlxî) : 85 x 85 x 27mm (40 mm incl. înălțime senzorul glob)
- Greutate : 42 gram
- Racord electric : 0.14-1.5mm<sup>2</sup>
- Grad de protecție : IP30

## 2.3 Tabel rezistență senzor glob

| NTC 10K 3435 |        |     |        |
|--------------|--------|-----|--------|
| °C           | kΩ     | °C  | kΩ     |
| -25          | 86,180 | +10 | 17,950 |
| -20          | 67,640 | +15 | 14,680 |
| -15          | 53,310 | +20 | 12,090 |
| -10          | 42,390 | +25 | 10,000 |
| -5           | 33,850 | +30 | 8,314  |
| 0            | 27,250 | +35 | 6,941  |
| +5           | 22,030 | +40 | 5,829  |

## 2.4 Setările din fabrică pentru Pintherm Infra HE Connect

- Cod meniu : 1000
- Schimbarea orelor : Bloc 1 LU, MA, MI, JOI, VI 08:00-17:00 orele  
Bloc 2-7 off
- Temperatura camerei : Temperatură zi 18°C  
Temperatură noapte 08°C
- Calibrare : +0.0

## 3.0 Instalarea

### 3.1 Asamblarea PinTherm Infra HE Connect

Stabiliți un loc corespunzător pentru asamblarea PinTherm Infra Connect. Montați PinTherm Infra Connect pe o suprafață solidă care poate suporta minim 4 kg. Este recomandabil ca PinTherm Infra Connect să fie plasat la o distanță de  $\pm 1,5\text{m}$  de podea, într-un loc bine accesibil.

Pentru cablurile de etansare utilizați numai cabluri de etansare prevăzute cu izolație de tensiune, cu o clasă minimă de incendiu UL94V2.

Înainte de a efectua cablajul, verificați dacă alimentarea este oprită. În caz contrar, opriți alimentarea înainte de a continua. Dacă alimentarea este oprită pentru aparatul care urmează a fi conectat, trebuie să consultați manualul tehnic/de depanare al dispozitivului.

Conectați PinTherm Infra Connect conform uneia dintre schițele electrice furnizate la finalul acestui manual tehnic.

RO

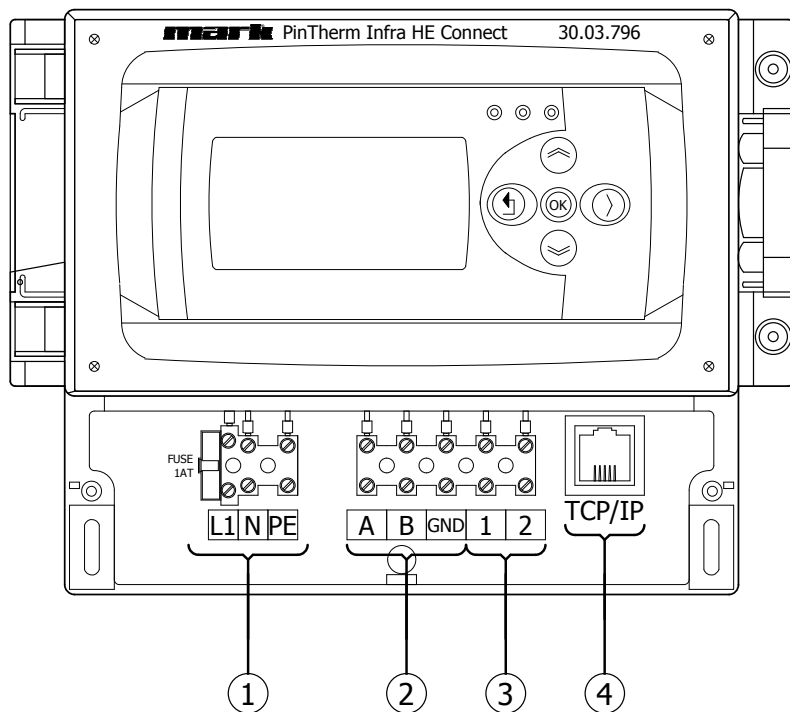
| Diametru           | Lungime   |
|--------------------|-----------|
| 0.8mm <sup>2</sup> | 80 meter  |
| 1.0mm <sup>2</sup> | 100 meter |
| 1.5mm <sup>2</sup> | 150 meter |



Utilizați un cablu de date ecranat pentru aceasta.

A se vedea manualul tehnic al tubului radiant Infra HE.

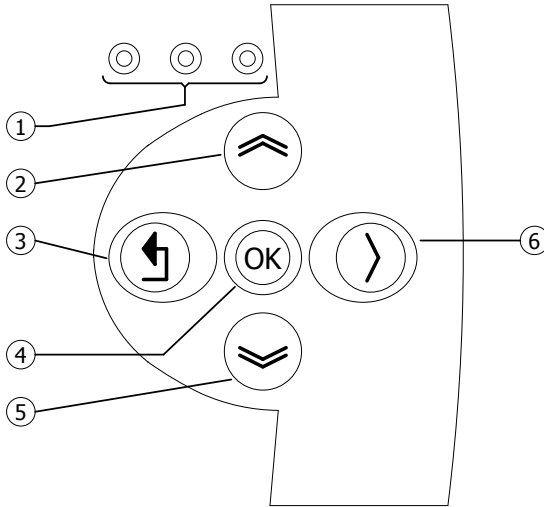
### 3.2 Opțiuni de conectare



|   |                                    |
|---|------------------------------------|
| 1 | Alimentare electrică l~230V +N +PE |
| 2 | Infra HE (Modbus)                  |
| 3 | Senzorul glob extern               |
| 4 | TCP/IP                             |

## 4.0 Manual depanare





























### 4.1 Explicarea butoanelor și LED-urilor



RO

|   |  |
|---|--|
| 1 | <ul style="list-style-type: none"><li>• LED roșu = defecțiune</li><li>• LED verde = in operare</li></ul>   |
| 2 | <ul style="list-style-type: none"><li>• Derulați în sus</li><li>• Reveniți la ultima pagină</li><li>• Creșteți valoarea / editați setarea</li><li>• Treci la următorul</li></ul>   |
| 3 | <ul style="list-style-type: none"><li>• Ieșiți din pagina de meniu / reveniți la ultimul meniu</li><li>• Mutați cursorul la stânga în modul de editare</li><li>• (Apăsați și mențineți apăsat) Părăsiți modul de editare fără a face schimbare</li></ul>           |
| 4 | <ul style="list-style-type: none"><li>• Treceți la următorul nivel/meniu/mod de editare (deschideți folderul, subdosarul, setarea parametrilor)</li><li>• Deschideți și confirmați setarea/setarea parametrilor</li><li>• Confirmați modificarea/setarea</li></ul> |
| 5 | <ul style="list-style-type: none"><li>• Derulează în jos</li><li>• Mergeți la pagina următoare</li><li>• Reduceți valoarea / editați setarea</li><li>• Treci la ultimul</li></ul>  |
| 6 | <ul style="list-style-type: none"><li>• Mutați cursorul la dreapta în modul de editare</li></ul>   |

## 4.2 Structura meniului

|   |  |  |  |  |          |               |                |               |   |               |   |                 |       |      |         |  |               |       |               |   |               |         |                |       |  |          |         |  |       |      |  |   |     |       |  |   |  |  |                |       |  |          |         |  |       |      |  |
|---|--|--|--|--|----------|---------------|----------------|---------------|---|---------------|---|-----------------|-------|------|---------|--|---------------|-------|---------------|---|---------------|---------|----------------|-------|--|----------|---------|--|-------|------|--|---|-----|-------|--|---|--|--|----------------|-------|--|----------|---------|--|-------|------|--|
|    |  |  |  |  |          |               |                |               |   |               |   |                 |       |      |         |  |               |       |               |   |               |         |                |       |  |          |         |  |       |      |  |   |     |       |  |   |  |  |                |       |  |          |         |  |       |      |  |
| <table border="1"> <tr> <td>Mon</td> <td>12:06</td> <td></td> </tr> <tr> <td></td> <td>21.5 °C</td> <td>18.0 °C</td> </tr> <tr> <td>Operating mode</td> <td colspan="2">: Day</td> </tr> <tr> <td>Overtime</td> <td colspan="2">: 0 min</td> </tr> <tr> <td>Reset</td> <td colspan="2">: No</td> </tr> </table> <p>Aprins: flacără<br/>Oprit: fără flacără</p> | Mon  | 12:06  |  |                 | 21.5 °C  | 18.0 °C       | Operating mode | : Day         |   | Overtime      | : 0 min   |                 | Reset | : No |         | <table border="1"> <tr> <td>Mon</td> <td>12:06</td> <td></td> </tr> <tr> <td></td> <td>°C</td> <td>18.0 °C</td> </tr> <tr> <td>Operating mode</td> <td colspan="2">: Day</td> </tr> <tr> <td>Overtime</td> <td colspan="2">: 0 min</td> </tr> <tr> <td>Reset</td> <td colspan="2">: No</td> </tr> </table> <p>#####: Niciun senzor conectat</p> | Mon           | 12:06 |               |  | °C            | 18.0 °C | Operating mode | : Day |  | Overtime | : 0 min |  | Reset | : No |  | <table border="1"> <tr> <td>Mon</td> <td>12:06</td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td>Operating mode</td> <td colspan="2">: Day</td> </tr> <tr> <td>Overtime</td> <td colspan="2">: 0 min</td> </tr> <tr> <td>Reset</td> <td colspan="2">: No</td> </tr> </table> <p>21.5 °C: Temperatura măsurată<br/>18.0 °C: Punct de referință</p> | Mon | 12:06 |  |  |  |  | Operating mode | : Day |  | Overtime | : 0 min |  | Reset | : No |  |
| Mon   | 12:06  |  |  |  |          |               |                |               |   |               |   |                 |       |      |         |  |               |       |               |   |               |         |                |       |  |          |         |  |       |      |  |   |     |       |  |   |  |  |                |       |  |          |         |  |       |      |  |
|    | 21.5 °C  | 18.0 °C  |  |  |          |               |                |               |   |               |   |                 |       |      |         |  |               |       |               |   |               |         |                |       |  |          |         |  |       |      |  |   |     |       |  |   |  |  |                |       |  |          |         |  |       |      |  |
| Operating mode  | : Day  |  |  |  |          |               |                |               |   |               |   |                 |       |      |         |  |               |       |               |   |               |         |                |       |  |          |         |  |       |      |  |   |     |       |  |   |  |  |                |       |  |          |         |  |       |      |  |
| Overtime  | : 0 min  |  |  |  |          |               |                |               |   |               |   |                 |       |      |         |  |               |       |               |   |               |         |                |       |  |          |         |  |       |      |  |   |     |       |  |   |  |  |                |       |  |          |         |  |       |      |  |
| Reset   | : No   |  |  |  |          |               |                |               |   |               |   |                 |       |      |         |  |               |       |               |   |               |         |                |       |  |          |         |  |       |      |  |   |     |       |  |   |  |  |                |       |  |          |         |  |       |      |  |
| Mon   | 12:06  |  |  |  |          |               |                |               |   |               |   |                 |       |      |         |  |               |       |               |   |               |         |                |       |  |          |         |  |       |      |  |   |     |       |  |   |  |  |                |       |  |          |         |  |       |      |  |
|    | °C   | 18.0 °C  |  |  |          |               |                |               |   |               |   |                 |       |      |         |  |               |       |               |   |               |         |                |       |  |          |         |  |       |      |  |   |     |       |  |   |  |  |                |       |  |          |         |  |       |      |  |
| Operating mode  | : Day  |  |  |  |          |               |                |               |   |               |   |                 |       |      |         |  |               |       |               |   |               |         |                |       |  |          |         |  |       |      |  |   |     |       |  |   |  |  |                |       |  |          |         |  |       |      |  |
| Overtime  | : 0 min  |  |  |  |          |               |                |               |   |               |   |                 |       |      |         |  |               |       |               |   |               |         |                |       |  |          |         |  |       |      |  |   |     |       |  |   |  |  |                |       |  |          |         |  |       |      |  |
| Reset   | : No   |  |  |  |          |               |                |               |   |               |   |                 |       |      |         |  |               |       |               |   |               |         |                |       |  |          |         |  |       |      |  |   |     |       |  |   |  |  |                |       |  |          |         |  |       |      |  |
| Mon   | 12:06  |  |  |  |          |               |                |               |   |               |   |                 |       |      |         |  |               |       |               |   |               |         |                |       |  |          |         |  |       |      |  |   |     |       |  |   |  |  |                |       |  |          |         |  |       |      |  |
|    |  |  |  |  |          |               |                |               |   |               |   |                 |       |      |         |  |               |       |               |   |               |         |                |       |  |          |         |  |       |      |  |   |     |       |  |   |  |  |                |       |  |          |         |  |       |      |  |
| Operating mode  | : Day  |  |  |  |          |               |                |               |   |               |   |                 |       |      |         |  |               |       |               |   |               |         |                |       |  |          |         |  |       |      |  |   |     |       |  |   |  |  |                |       |  |          |         |  |       |      |  |
| Overtime  | : 0 min  |  |  |  |          |               |                |               |   |               |   |                 |       |      |         |  |               |       |               |   |               |         |                |       |  |          |         |  |       |      |  |   |     |       |  |   |  |  |                |       |  |          |         |  |       |      |  |
| Reset   | : No   |  |  |  |          |               |                |               |   |               |   |                 |       |      |         |  |               |       |               |   |               |         |                |       |  |          |         |  |       |      |  |   |     |       |  |   |  |  |                |       |  |          |         |  |       |      |  |
| <table border="1"> <tr> <td colspan="2">Infra HE status</td> </tr> <tr> <td>5</td> <td>Malfunction 233</td> </tr> <tr> <td>6</td> <td>not connected</td> </tr> <tr> <td>7</td> <td>not connected</td> </tr> <tr> <td>8</td> <td>not connected</td> </tr> </table>   | Infra HE status  |  | 5  | Malfunction 233  | 6        | not connected | 7              | not connected | 8 | not connected | <table border="1"> <tr> <td colspan="2">Infra HE status</td> </tr> <tr> <td>1</td> <td>On 100%</td> </tr> <tr> <td>2</td> <td>not connected</td> </tr> <tr> <td>3</td> <td>not connected</td> </tr> <tr> <td>4</td> <td>not connected</td> </tr> </table> | Infra HE status |       | 1    | On 100% | 2  | not connected | 3     | not connected | 4   | not connected |         |                |       |  |          |         |  |       |      |  |   |     |       |  |   |  |  |                |       |  |          |         |  |       |      |  |
| Infra HE status   |  |  |  |  |          |               |                |               |   |               |   |                 |       |      |         |  |               |       |               |   |               |         |                |       |  |          |         |  |       |      |  |   |     |       |  |   |  |  |                |       |  |          |         |  |       |      |  |
| 5   | Malfunction 233  |  |  |  |          |               |                |               |   |               |   |                 |       |      |         |  |               |       |               |   |               |         |                |       |  |          |         |  |       |      |  |   |     |       |  |   |  |  |                |       |  |          |         |  |       |      |  |
| 6   | not connected  |  |  |  |          |               |                |               |   |               |   |                 |       |      |         |  |               |       |               |   |               |         |                |       |  |          |         |  |       |      |  |   |     |       |  |   |  |  |                |       |  |          |         |  |       |      |  |
| 7   | not connected  |  |  |  |          |               |                |               |   |               |   |                 |       |      |         |  |               |       |               |   |               |         |                |       |  |          |         |  |       |      |  |   |     |       |  |   |  |  |                |       |  |          |         |  |       |      |  |
| 8   | not connected  |  |  |  |          |               |                |               |   |               |   |                 |       |      |         |  |               |       |               |   |               |         |                |       |  |          |         |  |       |      |  |   |     |       |  |   |  |  |                |       |  |          |         |  |       |      |  |
| Infra HE status   |  |  |  |  |          |               |                |               |   |               |   |                 |       |      |         |  |               |       |               |   |               |         |                |       |  |          |         |  |       |      |  |   |     |       |  |   |  |  |                |       |  |          |         |  |       |      |  |
| 1   | On 100%  |  |  |  |          |               |                |               |   |               |   |                 |       |      |         |  |               |       |               |   |               |         |                |       |  |          |         |  |       |      |  |   |     |       |  |   |  |  |                |       |  |          |         |  |       |      |  |
| 2   | not connected  |  |  |  |          |               |                |               |   |               |   |                 |       |      |         |  |               |       |               |   |               |         |                |       |  |          |         |  |       |      |  |   |     |       |  |   |  |  |                |       |  |          |         |  |       |      |  |
| 3   | not connected  |  |  |  |          |               |                |               |   |               |   |                 |       |      |         |  |               |       |               |   |               |         |                |       |  |          |         |  |       |      |  |   |     |       |  |   |  |  |                |       |  |          |         |  |       |      |  |
| 4   | not connected  |  |  |  |          |               |                |               |   |               |   |                 |       |      |         |  |               |       |               |   |               |         |                |       |  |          |         |  |       |      |  |   |     |       |  |   |  |  |                |       |  |          |         |  |       |      |  |
| <h3>Status Screen</h3>  |  |  |  |  |          |               |                |               |   |               |   |                 |       |      |         |  |               |       |               |   |               |         |                |       |  |          |         |  |       |      |  |   |     |       |  |   |  |  |                |       |  |          |         |  |       |      |  |
| <table border="1"> <tr> <td>Password</td> </tr> <tr> <td></td> </tr> </table>  | Password   |         |  |  |          |               |                |               |   |               |   |                 |       |      |         |  |               |       |               |   |               |         |                |       |  |          |         |  |       |      |  |   |     |       |  |   |  |  |                |       |  |          |         |  |       |      |  |
| Password  |  |  |  |  |          |               |                |               |   |               |   |                 |       |      |         |  |               |       |               |   |               |         |                |       |  |          |         |  |       |      |  |   |     |       |  |   |  |  |                |       |  |          |         |  |       |      |  |
|    |  |  |  |  |          |               |                |               |   |               |   |                 |       |      |         |  |               |       |               |   |               |         |                |       |  |          |         |  |       |      |  |   |     |       |  |   |  |  |                |       |  |          |         |  |       |      |  |
| <table border="1"> <tr> <td>Menu</td> </tr> <tr> <td></td> </tr> <tr> <td>Clock program</td> </tr> <tr> <td>Operationg mode</td> </tr> <tr> <td>Location</td> </tr> <tr> <td>System Menu</td> </tr> </table>   | Menu   |         | Clock program  | Operationg mode  | Location | System Menu   |                |               |   |               |   |                 |       |      |         |  |               |       |               |   |               |         |                |       |  |          |         |  |       |      |  |   |     |       |  |   |  |  |                |       |  |          |         |  |       |      |  |
| Menu  |  |  |  |  |          |               |                |               |   |               |   |                 |       |      |         |  |               |       |               |   |               |         |                |       |  |          |         |  |       |      |  |   |     |       |  |   |  |  |                |       |  |          |         |  |       |      |  |
|    |  |  |  |  |          |               |                |               |   |               |   |                 |       |      |         |  |               |       |               |   |               |         |                |       |  |          |         |  |       |      |  |   |     |       |  |   |  |  |                |       |  |          |         |  |       |      |  |
| Clock program   |  |  |  |  |          |               |                |               |   |               |   |                 |       |      |         |  |               |       |               |   |               |         |                |       |  |          |         |  |       |      |  |   |     |       |  |   |  |  |                |       |  |          |         |  |       |      |  |
| Operationg mode   |  |  |  |  |          |               |                |               |   |               |   |                 |       |      |         |  |               |       |               |   |               |         |                |       |  |          |         |  |       |      |  |   |     |       |  |   |  |  |                |       |  |          |         |  |       |      |  |
| Location  |  |  |  |  |          |               |                |               |   |               |   |                 |       |      |         |  |               |       |               |   |               |         |                |       |  |          |         |  |       |      |  |   |     |       |  |   |  |  |                |       |  |          |         |  |       |      |  |
| System Menu   |  |  |  |  |          |               |                |               |   |               |   |                 |       |      |         |  |               |       |               |   |               |         |                |       |  |          |         |  |       |      |  |   |     |       |  |   |  |  |                |       |  |          |         |  |       |      |  |
| <table border="1"> <tr> <td>Temperature</td> </tr> <tr> <td>Day: </td> </tr> <tr> <td>Night: </td> </tr> <tr> <td>Calibration: </td> </tr> </table>                                    | Temperature  | Day:  | Night:  | Calibration:  |          |               |                |               |   |               |   |                 |       |      |         |  |               |       |               |   |               |         |                |       |  |          |         |  |       |      |  |   |     |       |  |   |  |  |                |       |  |          |         |  |       |      |  |
| Temperature   |  |  |  |  |          |               |                |               |   |               |   |                 |       |      |         |  |               |       |               |   |               |         |                |       |  |          |         |  |       |      |  |   |     |       |  |   |  |  |                |       |  |          |         |  |       |      |  |
| Day:   |  |  |  |  |          |               |                |               |   |               |   |                 |       |      |         |  |               |       |               |   |               |         |                |       |  |          |         |  |       |      |  |   |     |       |  |   |  |  |                |       |  |          |         |  |       |      |  |
| Night:   |  |  |  |  |          |               |                |               |   |               |   |                 |       |      |         |  |               |       |               |   |               |         |                |       |  |          |         |  |       |      |  |   |     |       |  |   |  |  |                |       |  |          |         |  |       |      |  |
| Calibration:   |  |  |  |  |          |               |                |               |   |               |   |                 |       |      |         |  |               |       |               |   |               |         |                |       |  |          |         |  |       |      |  |   |     |       |  |   |  |  |                |       |  |          |         |  |       |      |  |
| <p>Setați temperatura dorită de zi, temperatura de noapte și calibrare.</p>   |  |  |  |  |          |               |                |               |   |               |   |                 |       |      |         |  |               |       |               |   |               |         |                |       |  |          |         |  |       |      |  |   |     |       |  |   |  |  |                |       |  |          |         |  |       |      |  |



|                                     |                                     |                                     |                                     |                                     |                          |                          |
|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|--------------------------|--------------------------|
| Clock program                       |                                     |                                     |                                     |                                     |                          |                          |
| Mo                                  | Tu                                  | We                                  | Th                                  | Fr                                  | Sa                       | Su                       |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Start                               |                                     | Stop                                |                                     |                                     |                          |                          |
| 8 : 00                              |                                     | 17 : 00                             |                                     |                                     |                          |                          |
| Block 1                             |                                     |                                     |                                     | Save : No                           |                          |                          |

### Programul ceasului

Setarea programelor pe intervale de timp: Intervalele de timp în care regulatorul trebuie să comute temperaturile. Posibilitatea de a seta 7 programe (intervale). Pentru fiecare interval de timp trebuie să atribuim zilele săptămânii în care se aplică schimbarea, cât și ora de început și cea de sfârșit.

|                |      |
|----------------|------|
| Operating mode |      |
| mode :         | auto |

### Mod de operare

Configurare pentru modul de funcționare pentru fiecare zonă

- auto (programul ceasului va fi urmat),
- zi continuă,
- noapte continuă,
- lesi

|          |  |
|----------|--|
| Location |  |
| zone 1   |  |

### Locatie

Fiecare locație poate primi propriul nume, setare implicită: zona 1

## 4.3 Meniul de sistem

|                  |  |
|------------------|--|
| System menu      |  |
| Date / time      |  |
| Language         |  |
| IP address       |  |
| Change Password  |  |
| Minimum on time  |  |
| Software Version |  |


### Meniul de sistem

În acest meniu se pot modifica data/ora, limba, adresa IP și parola. Versiunea de software poate fi solicitată.

| Date / Time  |              |
|--------------|--------------|
| 19 / 07 / 21 | 14 : 15 : 55 |
| 25 / 07 / 18 | 0 : 00 : 00  |
| Mon          |              |
| Save : No    |              |

### Data/ora

Configurarea datei și orei reale.

| Language   |
|--|
| 1 - English  |
| 2 - Nederlands   |
| 3 - Français   |
| 4 - Deutsch  |
| Language  |

### Limba


Configurare pentru limba dorită (Engleză, Nederlands, Français, Deutsch).

| IP address         |
|--------------------|
| IP 192. 168. 1.100 |
| Sub 255.255.255. 0 |
| Save : No          |

### adresa IP

Configurați adresa IP și masca de subrețea

Notă: După salvarea adresei IP, controlerul va reporni.

| Change password   |
|---|
|  |

### Schimbați parola

Configurare pentru schimbarea parolei pentru a avea acces la meniu sau la pagina web (parola standard este: 1000).




| Minimum on time |
|-----------------|
| Time : 20min    |

### Timp minim de activare

La pornire, dispozitivul va functiona pentru o perioada minima in pozitia de functionare ridicata. Setare de fabrica: 20 de minute.

|   |  |  |
|---|--|--|
| <div style="border: 1px solid black; padding: 10px; width: fit-content; margin: 0 auto;"> Software Version<br/>1 . 0 </div> |  |  |
| <b>Versiune software</b><br>Versiunea actuală a software-ului.  |  |  |

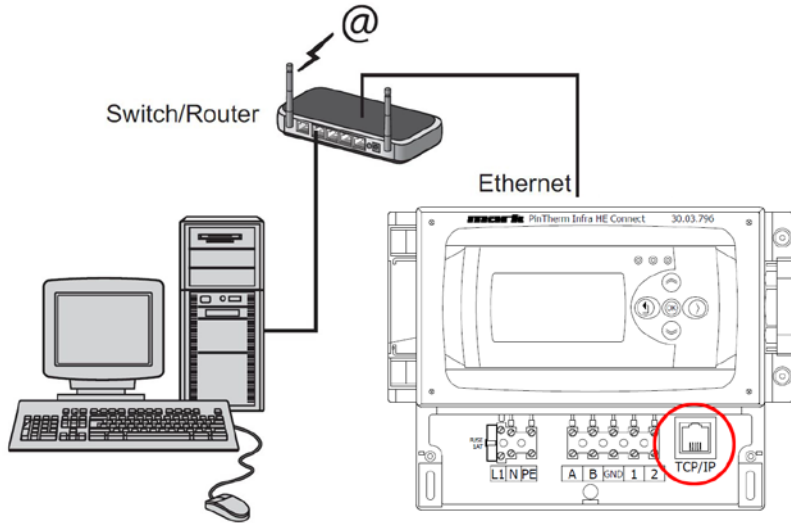
#### 4.4 Resetare parola la setările din fabrică

|  |   |
|--|---|
| 1 Pentru a reseta termostatul la setările din fabrică, mai întâi intrerupeti alimentarea , iar mai apoi reporniți-l.                                 |   |
| 2 In ecranul de pornire, tineti apasat  pentru doua secunde.        | <div style="border: 1px solid black; padding: 10px; width: fit-content; margin: 0 auto;"> <br/> --- &gt; </div>  |
| 3 Ecranul “Reset Password” este acum disponibil. Selectati “Yes”  . | <div style="border: 1px solid black; padding: 10px; width: fit-content; margin: 0 auto;"> Reset<br/>password?<br/> <div style="background-color: black; color: white; padding: 2px 10px; display: inline-block; margin-top: 5px;">No</div> </div> |
| Parola a fost resetată la setările din fabrică. Se va reveni la ecranul principal.   |   |

#### 4.5 Operare cu un computer

Unitatea poate fi operata folosind un PC sau laptop.

Conectați-vă computerul sau laptopul prin intermediul unei mufe Ethernet de pe afișaj.



După ce le-ați conectat pe ambele, porniți browserul de internet\* și introduceți adresa IP (adresă implicită: 192.168.1.100).

Când aveți o conexiune, va apărea un ecran de conectare.  
Introduceți numele de utilizator și parola.

User name: user  
Password: 1000 (factory setting)\*\*

Când detaliile de conectare au fost introduse corect, în browser va apărea o filă cu stare/setări.  
Prin filele din partea de sus a paginii se poate alege limba dorită sau se poate deschide un meniu pentru a vizualiza sau modifica programul ceasului de pe ecran.

\* Fabrica recomandă Google Chrome sau Mozilla Firefox.

\*\* În cazul în care ați schimbat parola prin afișajul Pintherm Infra HE Connect (meniu/meniu sistem/schimbați parola) trebuie să introduceți parola schimbată.

## 4.5.1 Dashboard

**mark** Dashboard Status Temperature Program System Network

### Dashboard

|                |                       |               |
|----------------|-----------------------|---------------|
| Location       | Zone 1                |               |
| Operating mode | Day                   | Clock(Auto) ▼ |
| Temperature    | 22.7                  | °C            |
| Setpoint       | 18.0                  | °C            |
| Over time      | 0                     | min. ▼        |
| Heat demand    | <input type="radio"/> |               |
| Fault status   | <input type="radio"/> |               |

RO

## 4.5.2 Meniul Stare

**mark** Dashboard Status Temperature Program System Network

### Status

|            |               |
|------------|---------------|
| Infra HE 1 | Off           |
| Infra HE 2 | not connected |
| Infra HE 3 | not connected |
| Infra HE 4 | not connected |

## 4.5.3 Meniul de temperatură

**mark** Dashboard Status Temperature Program System Network

### Temperature settings

#### Temperature

|                   |      |    |
|-------------------|------|----|
| Day temperature   | 18.0 | °C |
| Night temperature | 8.0  | °C |

#### Calibration

|        |   |   |
|--------|---|---|
| Offset | 0 | K |
|--------|---|---|

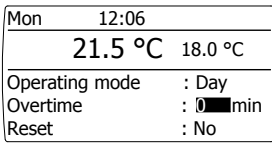
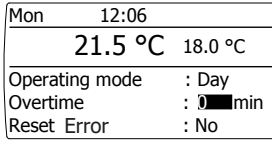


## 4.5.4 Program ceas

**mark** Dashboard Status Temperature Program System Network

### Program settings

| Program 1  | Program 2   | Program 3   | Program 4   |
|--|---|---|---|
| <input checked="" type="checkbox"/> Monday<br><input checked="" type="checkbox"/> Tuesday<br><input checked="" type="checkbox"/> Wednesday<br><input checked="" type="checkbox"/> Thursday<br><input checked="" type="checkbox"/> Friday<br><input type="checkbox"/> Saturday<br><input type="checkbox"/> Sunday | <input type="checkbox"/> Monday<br><input type="checkbox"/> Tuesday<br><input type="checkbox"/> Wednesday<br><input type="checkbox"/> Thursday<br><input type="checkbox"/> Friday<br><input type="checkbox"/> Saturday<br><input type="checkbox"/> Sunday | <input type="checkbox"/> Monday<br><input type="checkbox"/> Tuesday<br><input type="checkbox"/> Wednesday<br><input type="checkbox"/> Thursday<br><input type="checkbox"/> Friday<br><input type="checkbox"/> Saturday<br><input type="checkbox"/> Sunday | <input type="checkbox"/> Monday<br><input type="checkbox"/> Tuesday<br><input type="checkbox"/> Wednesday<br><input type="checkbox"/> Thursday<br><input type="checkbox"/> Friday<br><input type="checkbox"/> Saturday<br><input type="checkbox"/> Sunday |
| Start<br>08 : 00<br>Stop<br>17 : 00  | Start<br>08 : 00<br>Stop<br>17 : 00   | Start<br>08 : 00<br>Stop<br>17 : 00   | Start<br>08 : 00<br>Stop<br>17 : 00   |

## 5.0 Defecțiuni

| Imagine   | Alerta                          | Unde                 | Semnificatie   |
|---|---------------------------------|----------------------|--|
|   | #####°C                         | Afișaj               | Niciun senzor conectat.  |
|   | Eroare de resetare:<br>Nu       | Afișaj               | Un Infra are o defecțiune.<br>Prin afișaj se poate vedea în ce zonă. |
|  | LED-ul din dreapta<br>arde roșu | Afișaj               | Un Infra are o defecțiune.<br>Prin afișaj se poate vedea în ce zonă. |
|  | ----- °C                        | Internet-<br>browser | Niciun senzor conectat.  |

## 6.0 Aruncarea

De fiecare dată când PinTherm Infra HE Connect este înlocuit sau îndepărtat, trebuie reciclat sau casat conform reglementărilor naționale și/sau locale în vigoare.

## 7.0 Atasamente

- [1] Lista Modbus
- [2] - [6] Scheme electrice



MODBUS TABLE

| Modbus TCP/IP            |                          | Address 255 |     |     |  |
|--------------------------|--------------------------|-------------|-----|-----|--|
| Display                  | Modbus Holding registers | Value       |     |     |  |
|                          |                          | R/W         | min | max |  |
| Operating mode select    | 16504                    | R/LW        | 1   | 4   | 1=clock 2=constant day 3= constant night 4 = off     |
| Actual temperatuur       | 9004                     | R           | 20  | 400 | value /10  |
| Setpoint day             | 16507                    | R/LW        | 20  | 400 | value *10  |
| Setpoint night           | 16510                    | R/LW        | 20  | 400 | value *10  |
| Overtime minutes         | 9007                     | R/W         | 0   | 180 |  |
| Overtime on/off          | 9010                     | R           | 0   | 1   |  |
| Burner on                | 9013                     | R           | 0   | 1   |  |
| Error                    | 8992                     | R           | 0   | 1   |  |
| Actual setpoint          | 9019                     | R           | 20  | 400 | value /10  |
| Actual operating mode    | 9022                     | R           | 0   | 4   | 0=night 1=day 2=off 3=constant night 4= constant day |
| Burner 1 on              | 9311                     | R           | 0   | 1   |  |
| Burner 2 on              | 9312                     | R           | 0   | 1   |  |
| Burner 3 on              | 9313                     | R           | 0   | 1   |  |
| Burner 4 on              | 9314                     | R           | 0   | 1   |  |
| Burner 5 on              | 9315                     | R           | 0   | 1   |  |
| Burner 6 on              | 9316                     | R           | 0   | 1   |  |
| Burner 7 on              | 9317                     | R           | 0   | 1   |  |
| Burner 8 on              | 9318                     | R           | 0   | 1   |  |
| controller heat output   | 8991                     | R           | 0   | 100 | procent  |
| Temperature sensor fault | 8990                     | R           | 0   | 1   |  |
| Burner 1 error code      | 9331                     | R           | 0   | 255 |  |
| Burner 2 error code      | 9332                     | R           | 0   | 255 |  |
| Burner 3 error code      | 9333                     | R           | 0   | 255 |  |
| Burner 4 error code      | 9334                     | R           | 0   | 255 |  |
| Burner 5 error code      | 9335                     | R           | 0   | 255 |  |
| Burner 6 error code      | 9336                     | R           | 0   | 255 |  |
| Burner 7 error code      | 9337                     | R           | 0   | 255 |  |
| Burner 8 error code      | 9338                     | R           | 0   | 255 |  |



| program                     | Modbus Holding registers | Value |     |     |
|-----------------------------|--------------------------|-------|-----|-----|
|                             |                          | R/W   | min | max |
| Clock block 1 Monday        | 16552                    | R/LW  | 0   | 1   |
| Clock block 1 Tuesday       | 16553                    | R/LW  | 0   | 1   |
| Clock block 1 Wednesday     | 16554                    | R/LW  | 0   | 1   |
| Clock block 1 Thursday      | 16555                    | R/LW  | 0   | 1   |
| Clock block 1 Friday        | 16556                    | R/LW  | 0   | 1   |
| Clock block 1 Saturday      | 16557                    | R/LW  | 0   | 1   |
| Clock block 1 Sunday        | 16558                    | R/LW  | 0   | 1   |
| Clock block 1 start hour    | 16559                    | R/LW  | 0   | 23  |
| Clock block 1 start minutes | 16560                    | R/LW  | 0   | 59  |
| Clock block 1 stop hour     | 16561                    | R/LW  | 0   | 23  |
| Clock block 1 stop minutes  | 16562                    | R/LW  | 0   | 59  |
| Clock block 2 Monday        | 16563                    | R/LW  | 0   | 1   |
| Clock block 2 Tuesday       | 16564                    | R/LW  | 0   | 1   |
| Clock block 2 Wednesday     | 16565                    | R/LW  | 0   | 1   |
| Clock block 2 Thursday      | 16566                    | R/LW  | 0   | 1   |
| Clock block 2 Friday        | 16567                    | R/LW  | 0   | 1   |
| Clock block 2 Saturday      | 16568                    | R/LW  | 0   | 1   |
| Clock block 2 Sunday        | 16569                    | R/LW  | 0   | 1   |
| Clock block 2 start hour    | 16570                    | R/LW  | 0   | 23  |
| Clock block 2 start minutes | 16571                    | R/LW  | 0   | 59  |
| Clock block 2 stop hour     | 16572                    | R/LW  | 0   | 23  |
| Clock block 2 stop minutes  | 16573                    | R/LW  | 0   | 59  |
| Clock block 3 Monday        | 16574                    | R/LW  | 0   | 1   |
| Clock block 3 Tuesday       | 16575                    | R/LW  | 0   | 1   |
| Clock block 3 Wednesday     | 16576                    | R/LW  | 0   | 1   |
| Clock block 3 Thursday      | 16577                    | R/LW  | 0   | 1   |
| Clock block 3 Friday        | 16578                    | R/LW  | 0   | 1   |
| Clock block 3 Saturday      | 16579                    | R/LW  | 0   | 1   |
| Clock block 3 Sunday        | 16580                    | R/LW  | 0   | 1   |
| Clock block 3 start hour    | 16581                    | R/LW  | 0   | 23  |
| Clock block 3 start minutes | 16582                    | R/LW  | 0   | 59  |
| Clock block 3 stop hour     | 16583                    | R/LW  | 0   | 23  |
| Clock block 3 stop minutes  | 16584                    | R/LW  | 0   | 59  |
| Clock block 4 Monday        | 16585                    | R/LW  | 0   | 1   |
| Clock block 4 Tuesday       | 16586                    | R/LW  | 0   | 1   |
| Clock block 4 Wednesday     | 16587                    | R/LW  | 0   | 1   |
| Clock block 4 Thursday      | 16588                    | R/LW  | 0   | 1   |
| Clock block 4 Friday        | 16589                    | R/LW  | 0   | 1   |
| Clock block 4 Saturday      | 16590                    | R/LW  | 0   | 1   |
| Clock block 4 Sunday        | 16591                    | R/LW  | 0   | 1   |
| Clock block 4 start hour    | 16592                    | R/LW  | 0   | 23  |
| Clock block 4 start minutes | 16593                    | R/LW  | 0   | 59  |
| Clock block 4 stop hour     | 16594                    | R/LW  | 0   | 23  |
| Clock block 4 stop minutes  | 16595                    | R/LW  | 0   | 59  |
| Clock block 5 Monday        | 16596                    | R/LW  | 0   | 1   |
| Clock block 5 Tuesday       | 16597                    | R/LW  | 0   | 1   |
| Clock block 5 Wednesday     | 16598                    | R/LW  | 0   | 1   |
| Clock block 5 Thursday      | 16599                    | R/LW  | 0   | 1   |
| Clock block 5 Friday        | 16600                    | R/LW  | 0   | 1   |
| Clock block 5 Saturday      | 16601                    | R/LW  | 0   | 1   |
| Clock block 5 Sunday        | 16602                    | R/LW  | 0   | 1   |
| Clock block 5 start hour    | 16603                    | R/LW  | 0   | 23  |
| Clock block 5 start minutes | 16604                    | R/LW  | 0   | 59  |
| Clock block 5 stop hour     | 16605                    | R/LW  | 0   | 23  |
| Clock block 5 stop minutes  | 16606                    | R/LW  | 0   | 59  |
| Clock block 6 Monday        | 16607                    | R/LW  | 0   | 1   |
| Clock block 6 Tuesday       | 16608                    | R/LW  | 0   | 1   |
| Clock block 6 Wednesday     | 16609                    | R/LW  | 0   | 1   |
| Clock block 6 Thursday      | 16610                    | R/LW  | 0   | 1   |
| Clock block 6 Friday        | 16611                    | R/LW  | 0   | 1   |
| Clock block 6 Saturday      | 16612                    | R/LW  | 0   | 1   |
| Clock block 6 Sunday        | 16613                    | R/LW  | 0   | 1   |
| Clock block 6 start hour    | 16614                    | R/LW  | 0   | 23  |
| Clock block 6 start minutes | 16615                    | R/LW  | 0   | 59  |
| Clock block 6 stop hour     | 16616                    | R/LW  | 0   | 23  |
| Clock block 6 stop minutes  | 16617                    | R/LW  | 0   | 59  |
| Clock block 7 Monday        | 16618                    | R/LW  | 0   | 1   |
| Clock block 7 Tuesday       | 16619                    | R/LW  | 0   | 1   |
| Clock block 7 Wednesday     | 16620                    | R/LW  | 0   | 1   |
| Clock block 7 Thursday      | 16621                    | R/LW  | 0   | 1   |
| Clock block 7 Friday        | 16622                    | R/LW  | 0   | 1   |
| Clock block 7 Saturday      | 16623                    | R/LW  | 0   | 1   |
| Clock block 7 Sunday        | 16624                    | R/LW  | 0   | 1   |
| Clock block 7 start hour    | 16625                    | R/LW  | 0   | 23  |
| Clock block 7 start minutes | 16626                    | R/LW  | 0   | 59  |
| Clock block 7 stop hour     | 16627                    | R/LW  | 0   | 23  |
| Clock block 7 stop minutes  | 16628                    | R/LW  | 0   | 59  |

**EN****Select the right drawing!****DE****der richtigen schaltplan Wählen!****FR****Choisir schema électrique!****NL****Kies het juiste elektrische schema!****PL****Wybierz schemat****RO****Selectati schema corecta!**

1x Infra HE  
35-9/50-12

**[2]**

max. 8x  
Infra HE  
35-9/50-12

**[3]**

1x Infra HE  
35-9+/50-12+

**[4]**

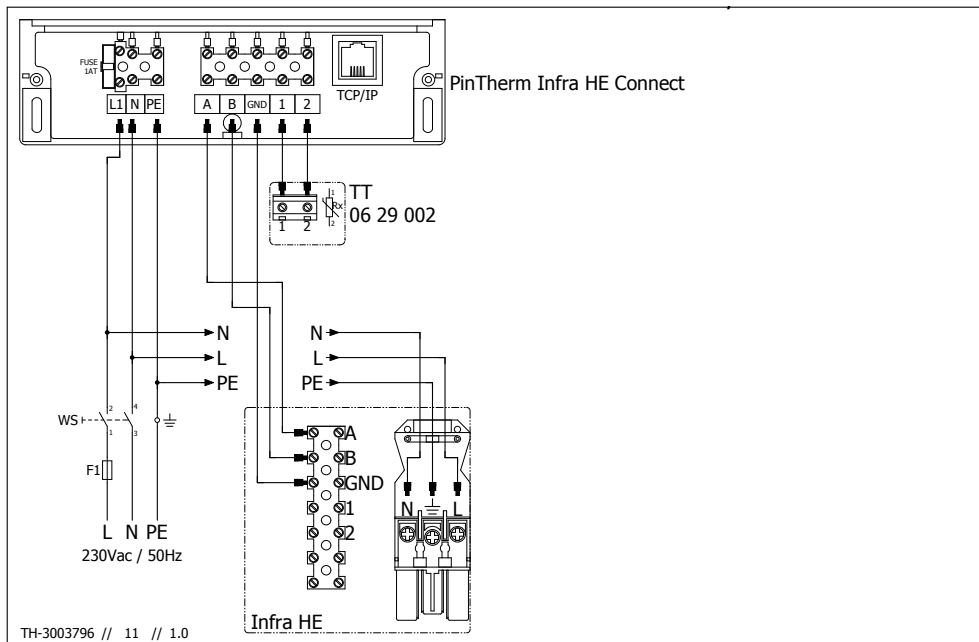
max. 8x  
Infra HE  
35-9+/50-12+

**[5]**

Multiple black bulb sensors  
Anschluss mehrerer Sensoren  
Connecter plusieurs capteurs  
Aansluiten meerdere sensoren  
Podłączanie wielu czujników  
Conectarea mai multor senzori

**[6]**

## [2] Ix Infra HE 35-9 / 50-12



### WS

|    |                             |
|----|-----------------------------|
| EN | Isolator switch             |
| DE | Reparatur schalter          |
| FR | L'interrupteur de proximité |
| NL | Werkschakelaar              |
| PL | Wyłącznik serwisowy         |
| RO | Switch pentru izolare       |

### TT

|                       |
|-----------------------|
| Black bulb sensor     |
| Schwarze kugel fühler |
| Capteur globe noir    |
| Zwarte bol voeler     |
| Czujnik Czarna kula   |
| Senzor glob           |

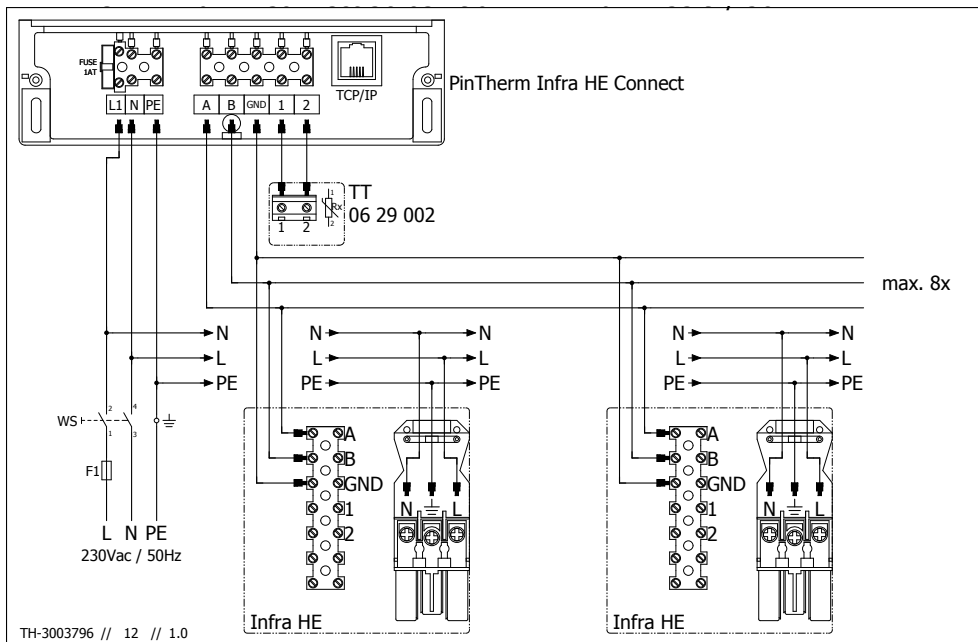
### FI

|             |
|-------------|
| Fuse        |
| Sicherung   |
| Fusible     |
| Zekering    |
| Bezpiecznik |
| Fitul       |

### TCP/IP

|                   |
|-------------------|
| Connector TCP/IP  |
| TCP/IP-Anschluss  |
| Connecteur TCP/IP |
| Connector TCP/IP  |
| Połączenie TCP/IP |
| Conector TCP/IP   |

# [3] max. 8x Infra HE 35-9 / 50-12



TH-3003796 // 12 // 1.0

## WS

|    |                             |
|----|-----------------------------|
| EN | Isolator switch             |
| DE | Reparatur schalter          |
| FR | L'interrupteur de proximité |
| NL | Werkshakelaar               |
| PL | Wyłącznik serwisowy         |
| RO | Switch pentru izolare       |

## TT

|                       |
|-----------------------|
| Black bulb sensor     |
| Schwarze kugel fñhler |
| Capteur globe noir    |
| Zwarte bol voeler     |
| Czujnik Czarna kula   |
| Senzor glob           |

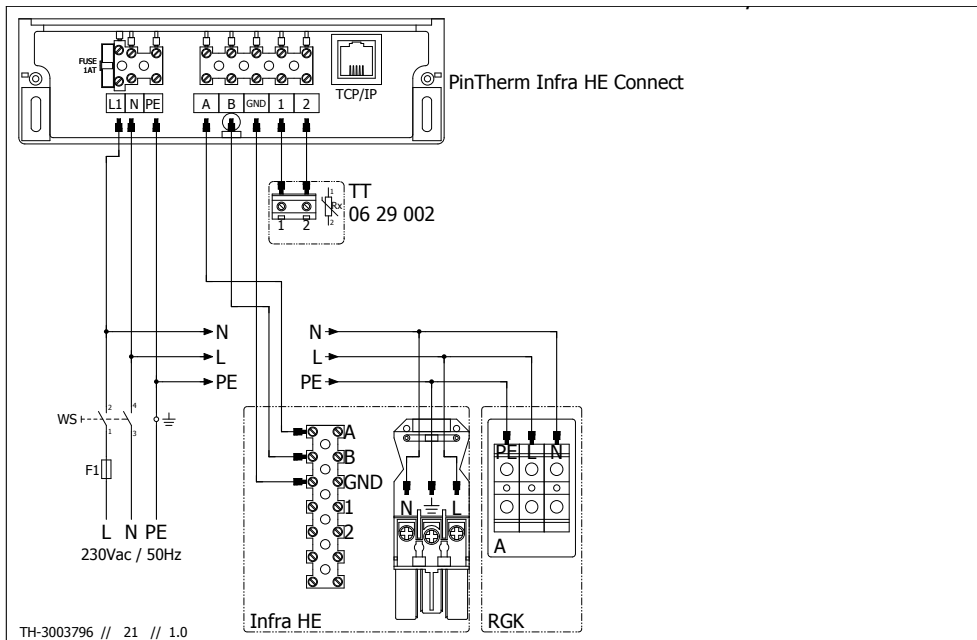
## FI

|             |
|-------------|
| Fuse        |
| Sicherung   |
| Fusible     |
| Zekering    |
| Bezpiecznik |
| Fitul       |

## TCP/IP

|                   |
|-------------------|
| Connector TCP/IP  |
| TCP/IP-Anschluss  |
| Connecteur TCP/IP |
| Connector TCP/IP  |
| Połączenie TCP/IP |
| Conector TCP/IP   |

## [4] Ix Infra HE 35-9+ / 50-12+



### WS

|    |                             |
|----|-----------------------------|
| EN | Isolator switch             |
| DE | Reparatur schalter          |
| FR | L'interrupteur de proximité |
| NL | Werkschakelaar              |
| PL | Wyłącznik serwisowy         |
| RO | Switch pentru izolare       |

### TT

|                       |
|-----------------------|
| Black bulb sensor     |
| Schwarze kugel fühler |
| Capteur globe noir    |
| Zwarte bol voeler     |
| Czujnik Czarna kula   |
| Senzor glob           |

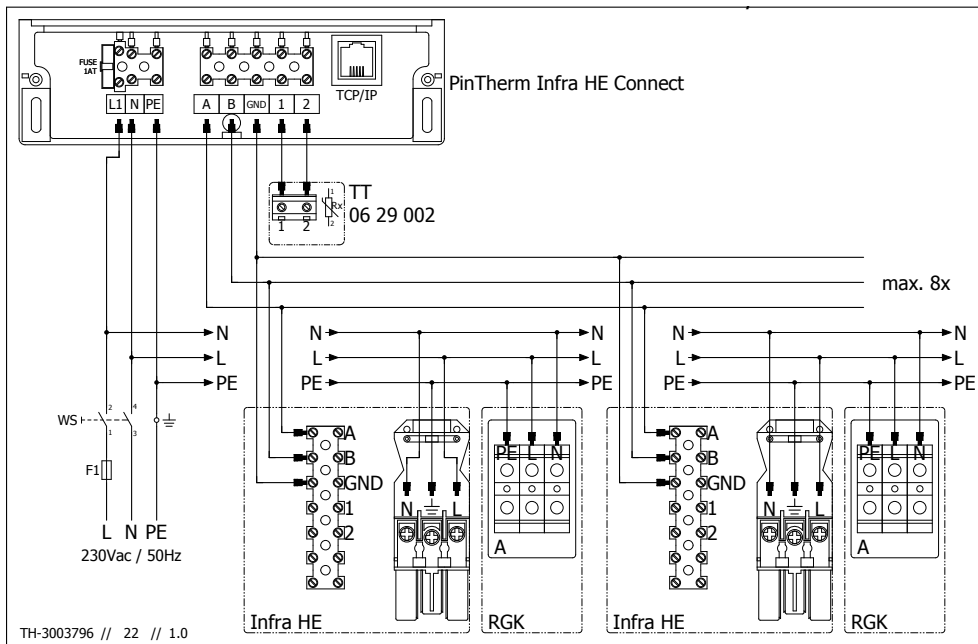
### FI

|             |
|-------------|
| Fuse        |
| Sicherung   |
| Fusible     |
| Zekering    |
| Bezpiecznik |
| Fital       |

### TCP/IP

|                   |
|-------------------|
| Connector TCP/IP  |
| TCP/IP-Anschluss  |
| Connecteur TCP/IP |
| Connector TCP/IP  |
| Połączenie TCP/IP |
| Conector TCP/IP   |

# [5] max. 8x Infra HE 35-9+ / 50-12+



TH-3003796 // 22 // 1.0

## WS

|    |                             |
|----|-----------------------------|
| EN | Isolator switch             |
| DE | Reparatur schalter          |
| FR | L'interrupteur de proximite |
| NL | Werkshakelaar               |
| PL | Wyłącznik serwisowy         |
| RO | Switch pentru izolare       |

## TT

|                       |
|-----------------------|
| Black bulb sensor     |
| Schwarze kugel fühler |
| Capteur globe noir    |
| Zwarte bol voeler     |
| Czujnik Czarna kula   |
| Senzor glob           |

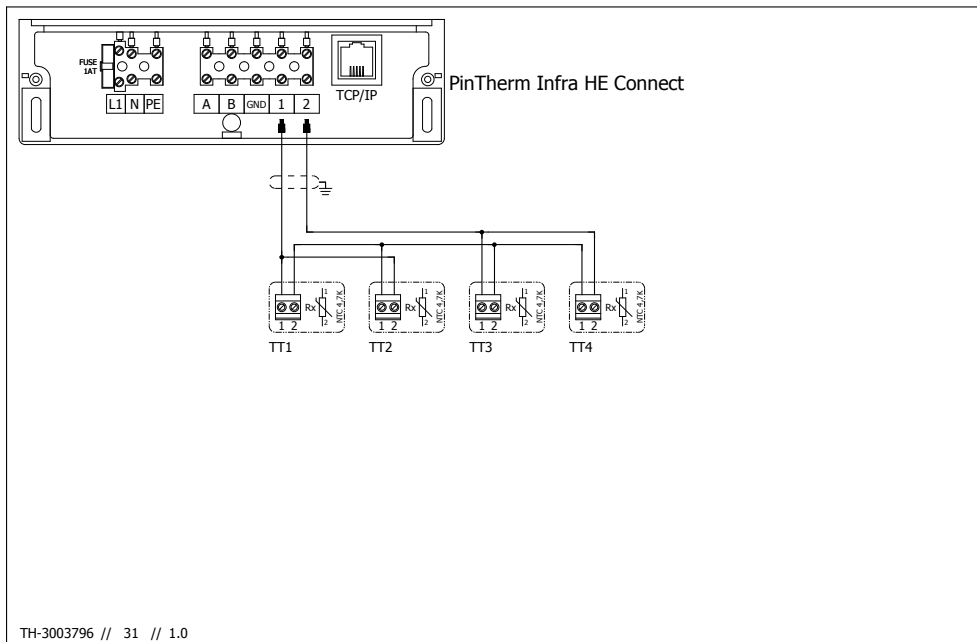
## FI

|             |
|-------------|
| Fuse        |
| Sicherung   |
| Fusible     |
| Zekering    |
| Bezpiecznik |
| Fital       |

## TCP/IP

|                   |
|-------------------|
| Connector TCP/IP  |
| TCP/IP-Anschluss  |
| Connecteur TCP/IP |
| Connector TCP/IP  |
| Połączenie TCP/IP |
| Conector TCP/IP   |

## [6] Multiple black bulb sensors



### TT

|    |                       |
|----|-----------------------|
| EN | Black bulb sensor     |
| DE | Schwarze kugel fñhler |
| FR | Capteur globe noir    |
| NL | Zwarte bol voeler     |
| PL | Czujnik Czarna kula   |
| RO | Senzor glob           |

### TCP/IP

|                   |
|-------------------|
| Connector TCP/IP  |
| TCP/IP-Anschluss  |
| Connecteur TCP/IP |
| Connector TCP/IP  |
| Połączenie TCP/IP |
| Conector TCP/IP   |

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