⚠ IMPORTANT!

Before starting work the installer should carefully read this Installation & Operation Manual, and make sure all instructions contained therein are understood and observed.
- The thermostat should be mounted, operated and maintained by specially trained personnel only. Personnel in the course of training are only allowed to handle the product under the supervision of an experienced fitter. Subject to observation of the above terms, the manufacture shall assume the liability for the equipment as provided by legal stipulations.
- A scheme of connection is provided on a separate sheet.
- All instructions in this Installation & Operation manual should be observed when working with the thermostat. Any other application shall not comply with the regulations. The manufacturer shall not be liable in case of incompetent use of the thermostat. Any modifications and amendments are not allowed for safety reasons. The maintenance may be performed by service shops approved by the manufacturer only.
- The functionality of the controller depends on the model and equipment. This installation leaflet is part of the product and has to be obtained.

APPLICATION
- The thermostats are developed to control and manage all type of heating installations.
- The controllers have been designed for use in residential rooms, office spaces and industrial facilities.
Verify that the installation complies with existing regulations before operation to ensure proper use of the installation.

⚠ SAFETY INSTRUCTIONS
Before starting work disconnect the power supply!
- All installation and wiring work related to the thermostat must be carried out only when de-energized. The appliance should be connected and commissioned by qualified personnel only. Make sure to adhere to valid safety regulations.
- The thermostats are neither splash- nor drip-proof. Therefore, they must be mounted at a dry place.
- Do not interchange the connections of the sensors and the 230V connections under any circumstances! Interchanging these connections may result in life endangering electrical hazards or the destruction of the appliance and the connected sensors and other appliances.

FIRST INSTALLATION
Batteries inside the thermostat must be charged for at least 6 hours to reach maximum capacity to back up time.

1. Product overview

Touch screen programmable thermostat specially designed to control different types of heating systems.
The thermostat will allow you to optimize your energy consumption and increase your comfort levels.

- Modern design with touch screen.
- Simplified wiring & Installation.
- "Easy program creation" function.
- Fully programmable.
- Temporary override function.
- Anti freeze function.
- Holiday or Reception function.
- Connections for 2 sensors.
- Estimation of the cost and consumption of the installation

Optional
- 2 External sensors with several possibilities of regulation. (Floor, combined…)

2. Menu structure

Mode

Manuel
Timer
OFF
Anti freeze
Vacation
Vacation settings
OFF
Anti freeze
Reduce
Sunday's program
Set Return Date
Program
Program Menu
View Current Program
Select Program
Edit Program
User 1
User 2
User 3

Settings

Language
English
German
Czech
Spanish
French
Date and Time
Date
Time
DST
Display
Colour
- Blue
- Red
- Green
- None

Clean Screen
Screen Lock
Floor Temperature Display
- Yes
- No

Degree Format
- °C
- °F

Time Format
- 12h
- 24h

Installation
Sensor
- Sensor Calibration
  - Int
  - Ext1
  - Ext2
- Ext. Sensor Type
  - Ext1 (10K – 12K – 15K)
  - Ext2 (10K – 12K – 15K)

Regulation
- Sensor Regulation
  - Air
  - Air + Floor
  - Floor
  - Air (Ext) + Floor
  - Air + Floor (x2)
- Regulation Type
  - ON/OFF
  - PID
- Floor Limit
  - Low
  - High
- First Heating
  - Wood (10 days)
  - Concrete (21 days)
  - Ceiling (10 days)
- Smart Start
  - Yes
  - No
- Open window function
  - Yes
  - No

Statistics
View
- View Last Day
- View Months
- View Year

kWh Price
Heating Power
RESET (press 2 seconds on the RESET button to reset your installation)

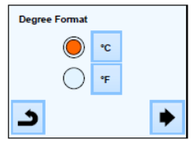
3. Installation menu

This section will guide you through setting up your thermostat for the first time.

3.1. Language

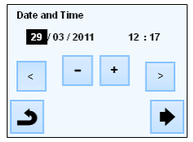
Press the (◄) or (►) keys near the flags to select the chosen language.
The active language is framed.
Press the ►key in the bottom right corner to continue the settings of the installation.

3.2. Degree format



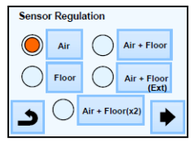
Select the degree format chosen by pressing on the touch button near the degrees. The active option is colored red
Press the ►key in the bottom right corner to continue to the next part of the installation
You can return to the previous menu by pressing the key.

3.3. Date and Time



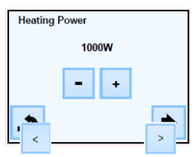
Select the time format 12H or 24H using the same method as above.
Press the (◄) or (►) keys to activate the value to be modified.
Each time a value is highlighted, it can be modified by pressing the (+) or (-) keys.
Press the ►key in the bottom right corner to continue to the next part of the installation
You can return to the previous menu by pressing the key.

3.4. Sensor Regulation



Select the chosen sensor regulation by pressing on the touch button near the sensor regulation possibilities
The active touch is colored red
Press the ►key in the bottom right corner to continue to the next part of the installation
You can return to the previous menu by pressing the key.

3.5. Heating power



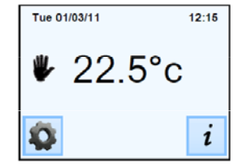
Press the (◄) or (►) keys to select a unit, press the (+) or (-) keys to modify the heating power.
This value is used to estimate the running cost of the system. You can return to the previous menu by pressing the key.
Press the ►key in the bottom right corner to continue.

The main screen is displayed.

The default working mode will automatically be set to manual mode.

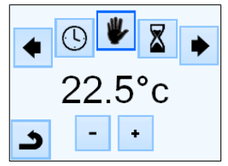
4. Mode of operation

Main screen



How to change the current mode?

Press on the key on the main screen and then press on the "Mode" button to access to the operating modes.
You can now press the (◄) or (►) keys to scroll and select a mode.
The selected mode is framed, to select a mode press the key to return to the main screen.



4.1 Programmable mode

In this mode the thermostat will follow the chosen program (Built-in or customized) according to the actual time

You can temporarily override the selected program, by pressing the temperature displayed on the main screen.

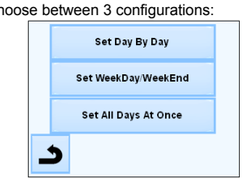
The small hand logo will be displayed when the override function is active.
To exit override mode, switch to manual then back to automatic mode

You will have the choice between 4 built-in programs that can't be modified and 3 user programs that you can customize.

1- How to customize a user program

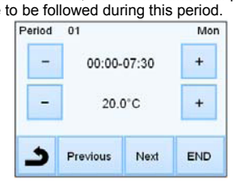
Press on the "Mode" button then on "Edit Program" button and choose a user program.

Then you will have to choose between 3 configurations:

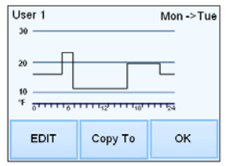


a- Set day by day

You will set a new program for each day.
Automatically, the first day you will program is Monday.
The minimum program step is 15 minutes.
You will have to configure several periods.
The first period begins at 00:00. Then, choose the end time period with the (+) and (-) keys and the temperature to be followed during this period.



Press "Next" button to continue the program. The next period will start at the end of the last period.
For all periods you will define, you have to choose the end period and the temperature. The last period stops at 24:00. Then press on the Next button.



Then, you can define another program for Tuesday by pressing the 'EDIT" button or you can copy the Monday Program by pressing the "Copy to" button

Continue to program as above for the remaining days o f the week.

a- Set weekday / WeekEnd

You will determine 2 programs: 1 for the weekdays (Monday to Friday) and 1 for the weekend (Saturday and Sunday)
Use the same process as explained above to customize your program.

b- Set all Days at once

You will determine 1 program which will be the same for every day of the week
Use the same process as explained above to customize your program.

1- How to choose a program

Press on the "Mode" button then on "Program Menu" button, then "Select Program" button you can choose between 4 built-in programs and 3 user programs.
Use the "See Next" button to scroll through the different programs and the "Select" button to confirm your selection.

You can view the current program by pressing on "View current program".

If you return to the main screen, press on the button to see the current program.

4.2 Timer mode

The Timer mode allows you to set a temperature and duration for a period of up to 5 hours.
This function can be used to override the program for short periods (reception...)
You will have to adjust the temperature and the duration (Default value 22°C).

When you have validated your choice, the logo appears on the left of the temperature with the remaining duration below.

4.3 Manual mode

Manual mode, the set temperature will be followed all the time.

4.4 OFF mode

Use this mode if you need to switch off your installation.

Be Careful: In this mode your installation can freeze.

4.5 Antifreeze mode

The antifreeze mode is used to protect your installation against frost.
The default value is 7°C but can be adjusted between 2°C and 15°C

4.6 Holiday mode

You will have to select a mode which will be followed during the vacation time. You have 4 possibilities:

- OFF Mode
- Antifreeze Mode
- Reduced Mode
- Sunday mode : the installation follows Sunday's current program

Then, select a return date and time

The logo and date of return are displayed on the main screen

If you want to cancel the holiday function before the return date, you can simply change operating mode.

5. Special Function

5.1 Keyboards lock Function

Use this function to prevent all change of your settings (In a child room, public area…)

- To activate the Key lock function, first press on Settings -> Display -> Screen Lock
- The " " logo will be displayed on the screen.
- press on the key and then press 7 seconds on the logo

5.2 First heating

Generally, the function is used right after installation to prevent your floor from getting damaged by the first heating.
The first heating function works as follows:
- Concrete : 2 hours of operation during 24 hours on the first day, and 1 extra hour is added every subsequent day, during 21 days. During this period, floor temperature (or room temperature unless floor sensor is activated) is limited to 20°C.
- Wood : 2 hours of operation during 24 hours on the first day, and 2 extra hour is added every subsequent day, during 10 days. During this period, floor temperature (or room temperature unless floor sensor is activated) is limited to 20°C + 0,8°C*Nb of days (20°C the 1st day, 20, 8°C the 2nd day, 21,6°C the 3rd day,...).
- Ceiling : 2 hours of operation during 24 hours on the first day, and 2 extra hour is added every subsequent day, during 10 days. During this period, air temperature is limited to 20°C.

5.3 Open window function

The user activates / de-activates the function in the Open Window menu.

Conditions of open window detection:
The thermostat detects an "Open window" if the displayed temperature (internal or ambient sensor) decreases by 3°C or more during a 5 minutes period (or less).
In this case, the thermostats stops heating for 15 minutes.
The function remains active during those 15 minutes so the stop can last more time if the temperature continues decreasing.

Return to normal mode:
The thermostat returns automatically to normal mode after the stop period.
The function can be overridden: pressing the screen during the stop heating phase, will display a specific menu asking the user to stop or continue the stop phase.

Special cases:
- This function doesn't work if Thermostat is in Floor regulation
- This function doesn't work if Thermostat is in OFF / Antifreeze Mode
- If temperature is less than 10°C, thermostat will regulates at 10°C during the stop phase

5.4 Information

On the right bottom corner, a button is displayed. This button is a shortcut depending of the current state of the thermostat:
- If a warning logo is displayed: press on the icon to access the information screen. The information screen will provide more information on the current fault.
- If a "i" is displayed: you can access the current set point and change it
- If a "step" icon is displayed, it means that you are in Programmable mode and you can view the current program directly.
- If a "padlock" logo, it means that the screen is locked, pressing the icon will take you to the unlock screen.

6. Parameter's precision

N°	Default value & other possibilities
In **Date and Time** Menu	DST: Daylight Summer time change Summer<->Winter **YES** automatic change according to date. **NO** no daylight summer time automatic change.
In **Installation** Menu -> *Sensor* -> *Sensor Calibration*	**Probe Calibration** The calibration must be done after 1 day working with the same setting temperature in accordance with the following description: Put a thermometer in the room at 1.5M distance from the floor (like the thermostat) and check the real temperature in the room after 1 hour. Select the probe you want to calibrate then use the **(-)** or **(+)** keys to enter the real value. Calibration is erased by the "RESET" function *** Pay attention:** Only the heating element driven by the thermostat must be used during the complete step of the calibration.
In **Installation** Menu -> *Sensor* -> *Ext sensor type*	**Probes Type** For ext1 and ext2 probes, you can have different types of NTC. 10, 12 and 15K NTC are recognized. 10K : $B_{25/85}$ = 3950K 12K : $B_{25/85}$ = 3740K 15K : $B_{25/85}$ = 3965K
In **Installation** Menu -> *Regulation* -> *Sensor Regulation*	**Air :** only internal probe is used, no floor limitation **Air + Floor :** internal probe is used for the regulation and Ext1 for floor limits **Floor :** only Ext1 probe is used for regulation, no floor limitation **Air (Ext) + Floor :** Internal probe is not used, regulation is done with Ext1 and floor limitation by Ext2 **Air + Floor (x2) :** internal probe is used for the regulation and Ext1, Ext2 for floor limits
In **Installation** Menu -> *Regulation* -> *Regulation Type*	**ON/OFF :** regulation made by hysteresis +:-0.3°C PID : use a PID regulation
In **Installation** Menu -> *Regulation* -> *Floor Limit*	in Air + Floor / Air (Ext) + Floor / Air + 2Floors regulations : High : if floor temperature is above the High limit, thermostat stops heating Low : if floor temperature is below the Low limit, thermostat starts heating
In **Installation** Menu -> *Regulation* -> *First Heating*	In new installations the heating must be progressive, there are two first heating programs available, depending on the finished floor covering.
In **Installation** Menu -> *Regulation* -> *SmartStart*	Function that can be activated / deactivated : In program mode, the positive steps will be anticipated according to the current temperature and the next set point.

7. Technical caracteristics

Measured temperature precision	0.1°C
Environmental: Operating temperature: Shipping and storage temperature:	 0°C - 40°C -10°C to +50°C
Setting temperature range Comfort, Reduced Holiday (Antifreeze)	 5°C to 35°C by 0,5°C step 7°C (adjustable)
Regulation characteristics	PID(10min cycle) or Hysteresis of 0.5°C
Electrical Protection	Class II - IP21
Maximum load	Relay 16Amps 250Vac
Included External sensors	10K ohms at 25°C
Optional External sensors	10K,12K or 15K ohms at 25°C
Software version	Displayed in the user menu.
Norms and homologation: Your thermostat has been designed in conformity with the following standards or other normative documents:	EN 60730-1 : 2003 EN 61000-6-1 : 2002 EN 61000-6-3 : 2004 EN 61000-4-2 : 2001 EN 60730-2-9 Low voltage 2006/95/CE EMC 2004/108/CE
Measured temperature precision	0.1°C
Battery Time	24 hours minimum (battery fully charged)

8. Troubleshooting and solution

My thermostat doesn't start	
Supply Problem	- Check if the product is correctly wired - Press the Reset button through the small hole under the product on the bottom right corner
Warning logo is displayed	
General Problems	Press the warning logo on the bottom right corner. More information on the fault is displayed i.e. the sensor or the fault type (error, floor limit, …) If error refers to the sensor : - Check sensor connections, - Check Regulation type (Air / Floor / Air+Floor …)
My thermostat seems to work correctly but the heating doesn't work correctly	
Output	- Check the connections. - Contact your installer.
My thermostat seems to work correctly but the temperature in the room was never in accordance with the program.	
Program	- Check the Clock. -The temperature steps are too high? - The step in the program is too short? - Contact your installer, to check & adjust the regulation parameters with your heating system.
General	- Check calibration sensor - Check external sensor type (10k, 12k, 15k)

9. WARRANTY

For normal use, a 2-year warranty from the date of purchase from an authorized seller is provided for flaws in the material or which occurred during the manufacturing of this product.
The warranty doesn't apply to products which have been damaged by improper use, defects caused by transport.

Date of sale:

Stamp and signature

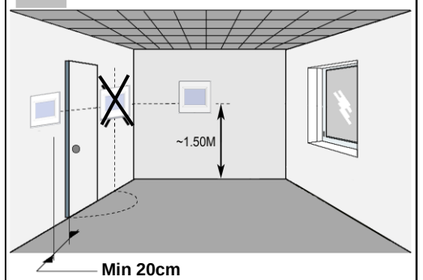
GB TFT thermostat installation guide

D Installationsanweisung für den Thermostat TFT

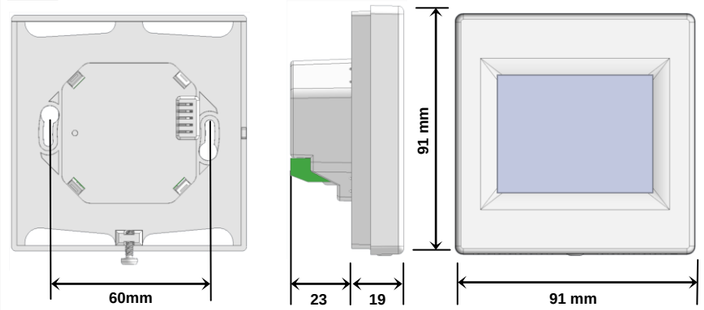
CZ Instalační příručka pro termostat TFT

RU Инструкция по установке термостата TFT

1



2



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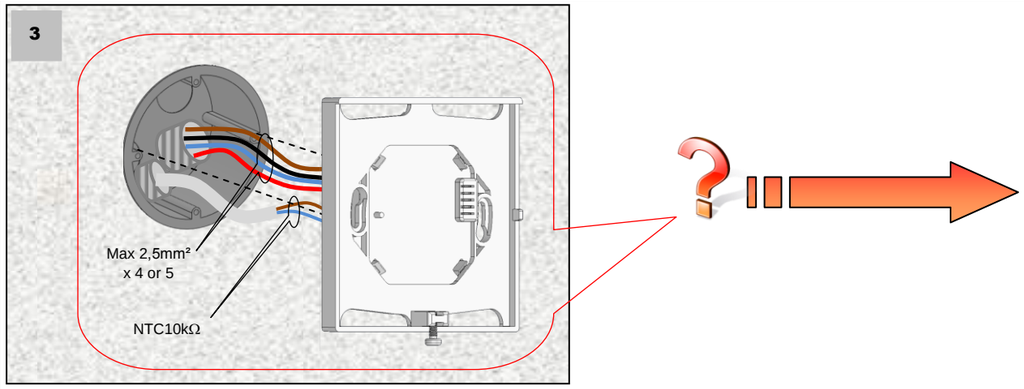

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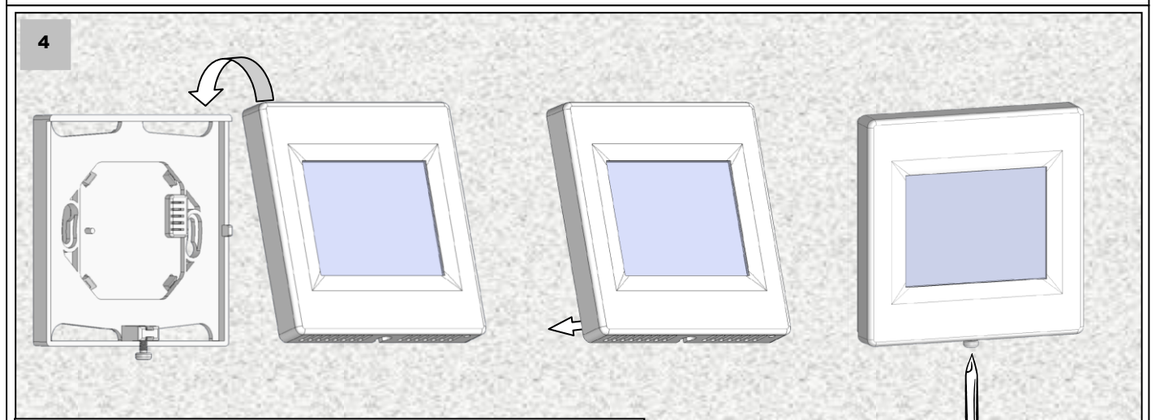
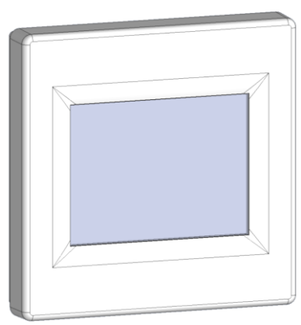


5



GB

SAFETY INSTRUCTIONS

Before starting work disconnect power supply!

- All installation and wiring work related to the thermostat must be carried out only when de-energized. The appliance should be connected and commissioned by qualified personnel only. Make sure to adhere to valid safety regulations.

You can drive directly up to 3600W (16A) with your thermostat **TFT** (fig1), above this power you must install an external power relay (contactor) to optimize and keep a good regulation (fig2).

Mounting instruction:

- All electrical conduits to the thermostat box that contain heating cable or floor sensor must be sealed to protect the thermostat against hot air currents.
- In case of the installation use floor sensor(s): the sensor(s) must be mounted alone in a separate conduit to avoid electrical perturbation. Check user guide for more explanation about regulation sensor possibilities.

CZ

BEZPEČNOSTNÍ INSTRUKCE

Před započetím práce odpojte zdroj napětí!

- Veškeré elektrické instalace týkající se termostatu musejí být prováděny pouze při odpojeném zdroji napětí. Zařízení smí být zapojeno a spuštěno pouze kvalifikovanou osobou. Dodržujte platné bezpečnostní předpisy.

Termostat TFT můžete používat do výkonu 3600W (16A) přímo (obr. 1), pro vyšší výkon musíte instalovat externí silové relé (stykač) kvůli optimalizaci a dobré funkci regulace (obr. 2).

Návod k instalaci:

• Veškeré elektroinstalační trubky vedoucí ke krabici termostatu, které obsahují topný kabel nebo podlahové čidlo, musejí být zaizolovány tak, aby byl termostat chráněn proti proudu teplého vzduchu.

• Pokud zařízení využívá podlahové čidlo (čidla): čidlo (čidla) musí být instalováno v oddělené elektroinstalační trubce, aby se zabránilo elektrickému rušení. Nahlédněte do uživatelské příručky, kde naleznete podrobnější vysvětlení týkající se možností regulačního čidla.

D

SICHERHEITINSTRUKTIONEN

Vor Arbeitsbeginn ist die Spannungsquelle zu trennen!

- Sämtliche elektrische Installationen, die den Thermostat betreffen, können nur mit abgetrennter Spannungsquelle durchgeführt werden. Die Einrichtung kann nur von einer qualifizierten Person geschaltet und aktiviert werden. Gültige Sicherheitsvorschriften respektieren.

Der Thermostat TFT kann bis zur Leistung von 3600W (16A) direkt (Abb. 1) verwendet werden, für höhere Leistungen ist ein externes Kraftstromrelais (Schütz) wegen Optimalisierung und richtiger Funktion der Regelung zu installieren (Abb. 2).

Installationsanweisung:

- Sämtliche Elektroinstallationsrohre, die zur Dose des Thermostates führen und die Heizkabel oder Fußbodenfühler enthalten, sind so zu isolieren, dass der Thermostat vor Warmluftstrom geschützt ist.
- Falls die Einrichtung einen Fußbodenfühler (mehrere Fußbodenfühler) ausnutzt: der Fühler/ die Fühler ist/sind in gesondertem Elektroinstallationsrohr zu installieren um die elektrische Störungen zu verhindern. Ausführlichere Erklärungen bezüglich Möglichkeiten des Regelfühlers sind im Benutzermanual zu finden.

RU

ИНСТРУКЦИЯ ПО ТЕХНИКЕ БЕЗОПАСНОСТИ

Прежде чем приступить к работе, отключите источник напряжения!

Все виды работ, связанные с электропроводкой термостата, разрешается выполнять только при отключенном источнике напряжения. Прибор присоединяется и вводится в эксплуатацию лиуом с надлежащей квалификацией. Соблюдайте действующие предписания по безопасности труда.

Термостат TFT самостоятельно можно использовать при мощности до 3600Вт (16A) (рис. 1), если мощность будет выше, потребуется встроить наружнее силовое реле (контактор) для оптимизации и надежного действия регуляции (рис. 2).

Инструкция по установке:

- Во всех трубах с электропроводкой, ведущих к коробке термостата и содержащих нагревательный кабель или напольный датчик, должна быть предусмотрена такая термоизоляция, которая бы защищала термостат от потока горячего воздуха.
- Если прибор действует, иходя из данных напольного датчика (датчиков): датчик (датчики) должен быть помещен в отдельной трубе с электропроводкой, чтобы не создавать электрические помехи. Загляните в пособие для пользователя, где найдете больше информации, связанной с возможностями регулирующего датчика.

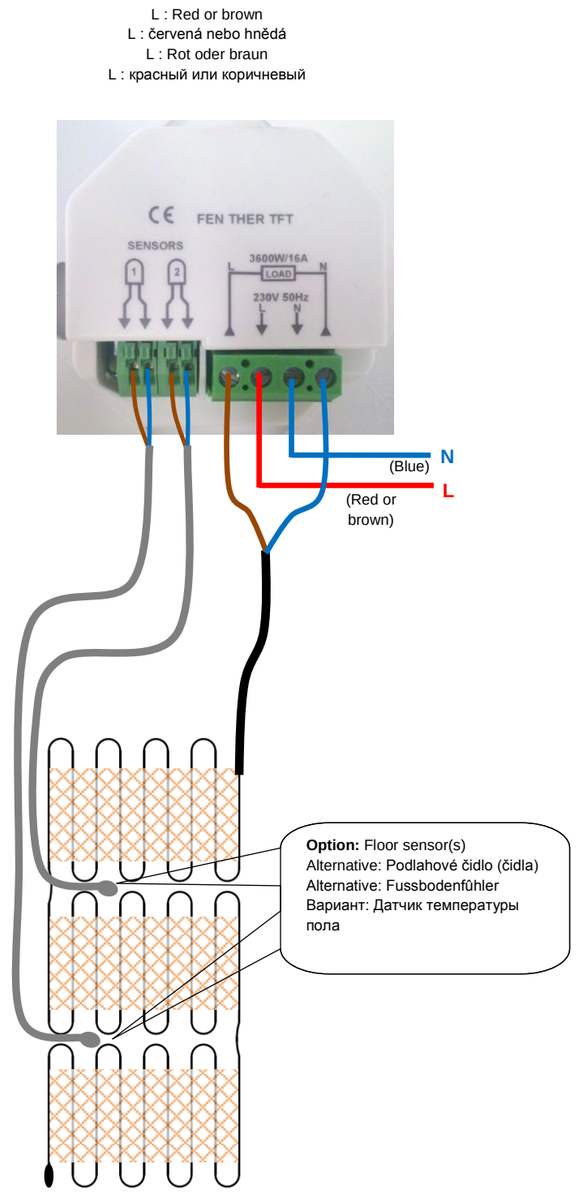


Fig1 / obr.1 / Abb1 / рис.1

GB/ One or more cable loops for a total power up to 3600W

CZ/ Jedna nebo více kabelových smyček pro celkový výkon do 3600W

D/ Eine Kabelschleife oder mehrere Kabelschleifen für die Gesamtleistung bis 3600 W

RU/ Одна или несколько кабельных петельпри общей мощности до 3600Вт

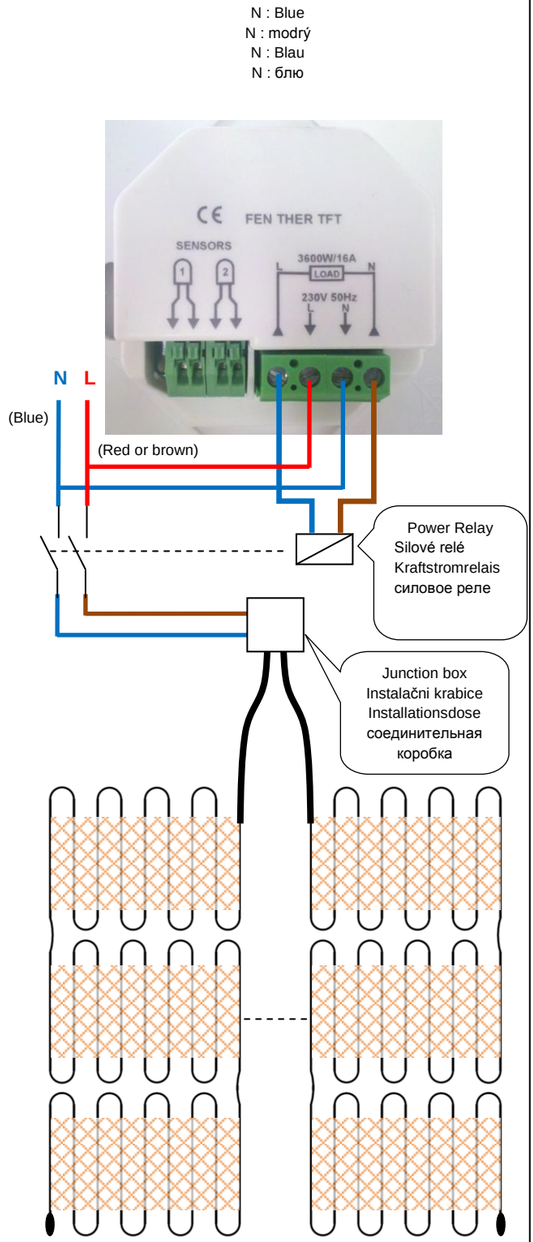


Fig2 / obr.2 / Abb2 / рис.2

GB/ Several cable loops for a power above 3600W

CZ/ Několik kabelových smyček pro výkon nad 3600W

D/ Mehrere Kabelschleifen für die Gesamtleistung über 3600 W

RU/ Несколько кабельных петель при мощности свыше 3600Вт