



Installation guide

Veria Control WT45 (Black)

Wi-Fi Thermostat



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Veria Control WT45 Room Thermostat

Veria Control WT45 is an intuitive programmable timer thermostat to be connected to Wi-Fi. The thermostat is primarily used for controlling electrical floor heating elements. The thermostat is designed for fixed installation. The Veria Control WT45 is fast and intuitive to setup using Smart Life APP. It offers open window

detection and energy-saving program including an optimum start/end control ensuring the desired temperature at the correct time and thereby reducing the heating costs. Veria Control WT45 is with 2 years warranty.



1.1 Functions

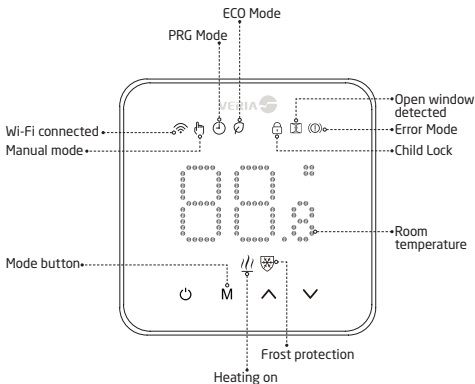
- Remote Wi-Fi Control
- White Backlight
- Adjustable Eco Mode, Manual Mode and PRG. mode
- Electrical heating system
- Weekly Programmable (From APP only)
- Open Window Detection
- Child Lock Function
- Frost Protection

1.2 Technical Data

Operation voltage	AC 85-250 V ~ 50/60 Hz
Standby power consumption	< 0.5 W
Relay: Resistive load Inductive load	< 16 A < 1 A
Sensing unit	NTC 10 k Ω (default) NTC 15 k Ω
Regulation	Hysteresis $\pm 0.5^{\circ}\text{C}$
Ambient temperature	0 $^{\circ}\text{C}$ to 40 $^{\circ}\text{C}$
Frost protection	5 $^{\circ}\text{C}$
Floor temperature limit	20-45 $^{\circ}\text{C}$

Temperature range	Room temperature: 5 °C to 35 °C (default 20 °C) Dual control: 5 °C to 35 °C Floor-only: 5 °C to 45 °C
Frost protection	5-15 °C, default 5 °C
Temperature calibration	±10 °C adjustment (default 0 °C)
Storage temperature	-20 °C to 60 °C, 90% RH non-condensing
Connection	Wi-Fi 802.11 b/g/n
Transmission Frequency	2,412 - 2,472 GHz
Transmission Power	< 20 dBm
Cable specification	Max: 1 x 4 mm ² or 2 x 2.5 mm ²
Pollution degree	2 (domestic use)
IP class	IP20
Protection class	Class II - 
Dimensions (H/W/D)	86 × 86 × 15.5 mm
Weight	150 g

Display & Buttons



WIFI Connection

Note: Before wifi configuration, please make sure your phone is now connected to 2.4 GHz Wi-Fi.

Please download "Smart life" APP from Google play or App store.

Once downloaded, the app will ask you to register your device.

Enter your email, select the country you live in and create a password for your Smart life account.



1. Enable Bluetooth function on your phone
2. Add device by press "+" button at top right corner
3. Long press  button to enter wifi connection mode, then press  button, the wifi icon  will flash.
4. App is searching for nearby Bluetooth device. Press "Add".
5. Choose Wi-Fi network and enter password.
6. Wait till device add successfully

Child Lock

Refer to the Menu 04 of Parameter setting to enable it. You can long press **M** button to unlock it for temporary adjustment.

Current Floor temp checking

Long press **M** button to check, long press **M** again or wait 6 seconds to exit.

Model Select

Short press **M** button to changeover between ECO mode , Manual Mode and PRG mode.

Weekly Programmable Setting (change from APP only)

Default schedule:

Room temperature/ Both room and floor temperature control mode

Weekday/ Weekend	Event 1	Event 2	Event 3	Event 4
	Start Time/ Temp.	Start Time/ Temp.	Start Time/ Temp.	Start Time/ Temp.
Weekday (Mon. to Fri.)	6:30 / 20	8:30 / 18	16:30 / 20	22:30 / 18
Weekend (Sat. and Sun)	7:30 / 20	9:30 / 20	16:30 / 20	22:30 / 18

Floor temperature control mode

Weekday/ Weekend	Event 1	Event 2	Event 3	Event 4
	Start Time/ Temp.	Start Time/ Temp.	Start Time/ Temp.	Start Time/ Temp.
Weekday (Mon. to Fri.)	6:30 / 27	8:30 / 25	16:30 / 27	22:30 / 25
Weekend (Sat. and Sun)	7:30 / 27	9:30 / 27	16:30 / 27	22:30 / 25

Open window detect function (OWD function)

When the Open Window detect function is enabled in the parameter setting, the system will automatically stop heating when detecting a sudden drop of room temperature (2 °C in 15 minutes as default). This is normally caused when a window or door is opened without turning off the heating device.

The device will return to the previous mode of operation after 30 mins, then  disappear. Press any button to exit OWD function during heating off period.

Parameter setting

Power off, press **M** button and **^** button at the same time for 6seconds to enter the parameter setting mode. Press **M** button for parameter selection, set the parameter range via **^** and **v** buttons to adjust. Press **M** button to confirm or go back to previous menu.

Feature	Description	Range	Default Value
01	Control mode	0: Air Activeonly in installer settings	2
		1: Floor	
		2: Air & Floor	
02	Frost Protection Temp.	ON: 5 °C ~15 °C OFF: —	5 °C
03	Floor Temp (Overheat) Limit	20 °C ~35 °C	35 °C
04	Child Lock	0: Disable 1: Enable	0
05	OWD function	0: OFF 1: ON	OFF
06	OWD Detect Time	2~30 mins	15 mins
07	OWD Drop temp. select (within detect time)	2-4°C	2 °C
08	OWD Mode Exit time select. (Return to previous working status)	10~60 min	30 mins

Feature	Description	Range	Default Value
09	LED backlight Max. brightness level adjustment during operation	1~100%	100%
10	LED backlight min. brightness level adjustment during standby mode	0~100%	10%
11	Reset	Choose 1, then long press on/off button till restart	

Installer settings

Power off , then press  and  buttons at the same time for 10 seconds to enter the parameter setting mode. Press  button for parameter selection, set the parameter range via  and  buttons to complete all adjustments.

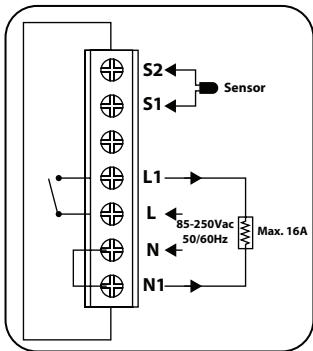
Feature	Description	Range	Default Value
01	Select spec of floor sensor	0: NTC10 KΩ 1: NTC15 KΩ	0
02	Room Sensor Temperature Offset	-10 °C to +10 °C	0 °C
03	Floor Sensor Temperature Offset	-10 °C to +10 °C	0 °C
04	Switching Differential	0 °C to +3 °C	0 °C
05	Room temp only	0: Disable 1: Enable	0

Feature	Description	Range	Default Value
06	Floor temp control (Room and floor sensor control)	0: max. 35 °C 1: max. 45 °C	0
07	Software No.		

Error code

Error Code	Error
E1	Room sensor failure
E2	Floor sensor failure
Lo	Power off, air temp. lower than 0 °C
HI	Floor or air temp. higher than 50 °C

Wiring Diagram



Safety instruction

Make sure that the mains power supply to the thermostat is shut off before starting the installation.

Important: If the thermostat is used to control a floor heating element, always use a floor temperature sensor and never set the maximum floor temperature higher than the manufacturer recommends for the specific floor type. The device is limited to a floor temperature of 35 °C due to compliance requirements.

In special cases the limit can be extended to 45 °C floor temperature after performing limit changes in installer settings. Do not use this function for the wooden floor constructions.

If the top floor is made of laminate, parquet or solid wood, the unit must be limited to a maximum floor temperature of 27 °C unless otherwise described.

- Electric heating thermostats should always be installed in accordance with local building codes and electrical regulations. Installation should be carried out by an authorized and/or qualified installer.
- The thermostat must be used in a wall mounted installation supplied through an all-pole disconnection switch (fuse).
- Do not expose the thermostat to moisture, water, dust, and excessive heat.
- This thermostat can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental

capabilities or lack of experience and knowledge, if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved, by a person responsible for their safety.

- Children should be supervised to ensure that they do not play with the thermostat.
- The device is designed for permanent operation.

Installation

	DO • Mount the thermostat at eye level. • Read the instructions fully so you get the best from our product.
	DON'T • Do not install near to a direct heat source as this will affect functionality. • Do not push hard on the LCD screen as this may cause irreparable damage. • Do not install the thermostat in direct wet areas (Zones 0, 1 and 2). Always follow local regulations regarding IP classes, this doesn't mean that the thermostats can't be installed in bathrooms. • Do not place the thermostat on the inside of a poorly insulated exterior wall. • Do not install the thermostat closer than 50 cm from window and door openings.

The thermostat is designed to be flush mounted and requires a back box of 35 mm (minimum depth) to be sunk into the wall prior to installation.

Step 1

Using a small screwdriver, slightly loosen the screw from the bottom face of the thermostat. Then carefully separate the front half from the back plate.

Step 2

Place the thermostat front somewhere safe.

Step 3

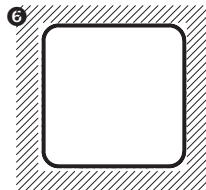
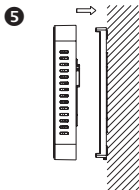
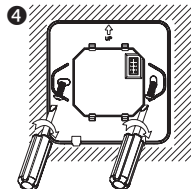
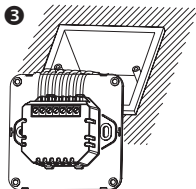
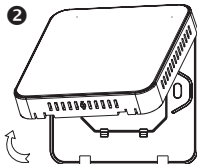
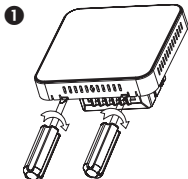
Terminate the thermostat as shown in the diagram

Step 4

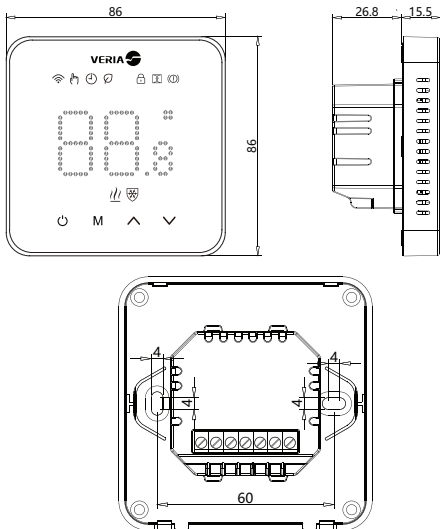
Screw the thermostat back plate securely into the back box.

Step 5

Clip the front of the thermostat onto the back plate



Dimension



Standard compliance

Electrical safety, Electro-Magnetic Compatibility and Radio aspects for this product is covered by the compliance with the following relevant standards:

- EN IEC 62368-1 (LVD)
- EN 301 489-1 and EN 301 489-17 (EMC)
- EN 300 328 (Radio)
- EN 18031-1:2024 (Cybersecurity)

SIMPLIFIED EU DECLARATION OF CONFORMITY

Hereby, Danfoss A/S declares that the radio equipment Veria Control WT45 is in compliance with Directive 2014/53/EU. The full Declaration of conformity can be found on <https://assets.danfoss.com/approvals/586688/ID561134368170-0101.pdf>

Compliance with EN 18031-1 - Cybersecurity and Data Protection

The Veria Control WT45 complies with **EN 18031-1**, the European harmonized standard that supports **the Radio Equipment Directive (RED)** by setting cybersecurity and data protection requirements for wireless communication devices.

To ensure compliance and protect both the device and its users, the following guidelines must be followed:

Standard Residential Installation

- **Controlled Access:** The thermostat is primarily designed for installation in private homes or areas with restricted physical

access, where only authorized users (e.g. family members or building staff) can interact with it.

- **Secure Mounting:** Always install the device on a wall or in a flush-mounted electrical box using the provided hardware. This reduces the risk of tampering with physical interfaces like reset pairing button.

Installation in Public or Semi-Public Spaces (e.g. Offices, Shared Buildings)

If the Veria Control WT45Thermostat is to be installed in areas accessible to the public or multiple users, additional precautions must be taken:

- **Enclosure or Housing:** Install the thermostat inside a lockable protective cover or within a secure enclosure to prevent unauthorized physical access to the device's buttons and connectors.
- **Limited Access to Pairing:** Ensure that only authorized personnel can activate the pairing mode. This may require temporarily disabling access to the thermostat during setup or commissioning.
- **Network Segmentation:** If integrated with a building management or automation system, make sure that communication between devices follows recommended network security practices, such as using isolated VLANs or secured local gateways.
- **User Responsibility:** In multi-user environments, assign clear responsibility for managing the thermostat (e.g. building maintenance personnel). Ensure all users are aware of how to

avoid unintentional changes or unauthorized access.

Ongoing Security Measures

- **Firmware Updates:** Regularly check for updates via the SmartLife app and apply them to benefit from the latest security enhancements.
- **Limit App Access:** Avoid sharing the SmartLife login or access with unknown or unauthorized users. Only trusted individuals should be allowed to connect to and control the thermostat.

By following these recommendations, the Veria Control WT45 Thermostat can be used securely in both private and shared environments while maintaining compliance with EN 18031-1.

Eco Design Sheet

To comply with Ecodesign regulations for electric local space heaters 2024/1103 the following table is to be filled in with the specifics of the heating system. Herein the thermostat information for this specific product is prefilled, please fill any/all blank slots.

Information requirements for electric local space heaters

Model identifier(s): Veria Control WT45					
Item	Sym- bol	Value	Unit	Item	
Power consumption				Type (select one)	
In off mode	P_o	N/A	W	single stage heat output and no room temperature control	no
In standby mode	P_{sm}	0.49	W	two or more manual stages, no room temperature control	no
In idle mode	P_{idle}	0.50	W	mechanic thermostat room temperature control	no
In networked standby	P_{nsm}	0.35	W	electronic room temperature control	no
Standby mode with display of information status	no			electronic room temperature control plus day timer	no
				electronic room temperature control plus week timer	yes

				Other control options (multiple selections possible)	
				presence detection	no
				open window detection	yes
				distance control option	yes
				adaptive start control	no
				working time limitation	no
				black bulb sensor	no
				self-learning functionality	no
				control accuracy	no
Contact details		Danfoss A/S, Nordborgvej 81, 6430 Nordborg, Denmark			

Control function codes

		Code of temperature control (TC)	Control functions							
Type of temperature control	Single stage, no temperature control	NC	f1	f2	f3	f4	f5	f6	f7	f8
	Two or more manual stages, no room temperature control	TX								
	Mechanic thermostat room temperature control	TM								
	Electronic room temperature control	TE								
	Electronic room temperature control plus day timer	TD								
	Electronic room temperature control plus week timer	TW								
Control functions	Presence detection		1							
	Open window detection			2						
	Distance control option				3					
	Adaptive start control					4				
	Working time limitation						5			
	Black bulb sensor							6		
	Self-learning functionality								7	
	Control accuracy with CA<2 Kelvin and CSD<2 Kelvin									8

This product contains TW(f2) control functions

Warranty

Veria products are designed for many years of trouble-free operation. Consequently, the Veria Quickmat and Veria Flexicable products are guaranteed for 12 years if installed properly in accordance with the Installation Guide.

All other Veria products, including the Veria Control WT45, have a two-year guarantee. This guarantee covers all products that are clearly defective due to a deficiency in manufacturing, design or material.

The guarantee is null and void in the following cases:

- If the product is not installed in accordance with the Installation Guide.
- If the product is not connected by an authorised electrician or electrical specialist.
- If the defect is caused by an unsuitable or poor floor construction.

In addition, guarantee claims will only be honoured if the attached guarantee certificate is completed properly. The owner must keep this certificate in a safe place and present it in case of a guarantee claim.

If for some reason a guarantee claim is necessary, we will repair the product at no charge or send you a replacement product at no charge.

The guarantee does not cover indirect or additional costs, such as the cost of determining the cause of the fault, removing the product, repairing the floor, etc.

WARRANTY CERTIFICATE

The warranty is granted to:

Address

Stamp

Purchase
date

Serial number
of the product

Product

Art. No.

*Connected
output [W]

Installation Date
& Signature

Connection Date
& Signature

**Not mandatory*

Disposal instruction



This symbol on the product indicates that it may not be disposed of as household waste.

It must be handed over to the applicable take-back scheme for the recycling of electrical and electronic equipment.

- Dispose of the product through channels provided for this purpose.
- Comply with all local and currently applicable laws and regulations.

189B4072

Veria Control WT45 Black

VERIA



140R0221



Room Wi-Fi Thermostat
Floor/Room sensors
85-250 Vac ~ 50/60 Hz
16 A/3680 W @ 230 V
OT40
IP20
~2,4 Ghz (Wi-Fi)



WWW.VERIAFLOORHEATING.COM

MADE IN CHINA



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