SALUS CONTROLS

Wired thermostat with digital display for the control of temperature in UFH & RAD systems
Model: VS35W (white), VS35B (black)

Installation Manual

Computime

ISO 9001 Registered

www.saluscontrols.com

SALUS Controls is a member of the Computime Group

Introduction
The VS35 thermostat controls temperatures of individual heating zone in underfloor heating systems. Thermostat allows for significant savings thanks to the possibility of maximum reduction the set temperature. The full version of the manual in PDF format is available on the website www.salus-controls.eu

Introduction
This product complies with the following EU Directives: Electromagnetic Compatibility 2014/30/EU, Low Voltage Directive 2014/35/EU and RoHS 2011/65/EU. Full information is available on the website www.saluslegal.com

⚠ Safety Information
Use in accordance with national and EU regulations. Use the device only as intended, keeping it in a dry condition. The product is for indoor use only. Installation must be carried out by a qualified person in accordance with national and EU regulations.

Terminals description

| Terminal	Description
L, N	Power Supply 230 V AC
NSB	Night SetBack (input 230 V AC)
SL	Switched output (230 V AC)
S1, S2	External temperature sensor

Proper thermostat placement

150 cm.
мин. 20 см.
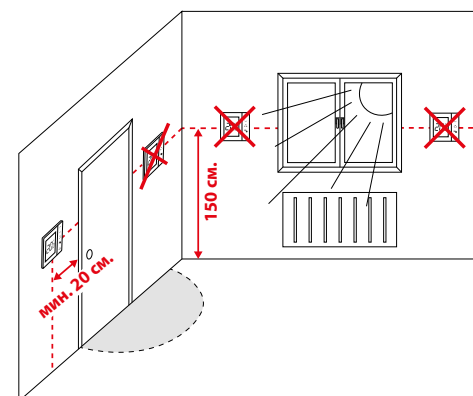
Button Functions

Button	Function
∧ ∨	Increasing / decreasing temperature or value
⟨ ⟩	Selection of the operating mode, switching between values
✓	Short press - selection confirmation
Long press - entry to or exit from the menu
| ∧ + ∨ | Long press causes blocking or unlocking the thermostat |

LCD Icon description
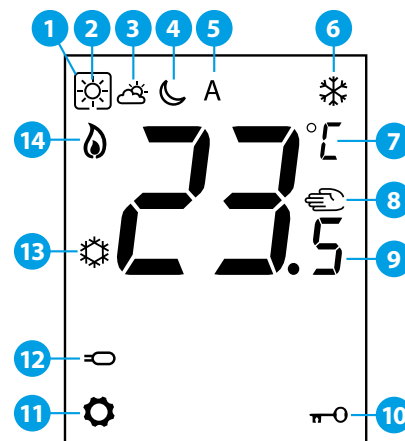
1. ☐ Current active mode
2. Comfort mode
3. Standard mode
4. Economic mode
5. Automatic mode
6. Frost protection mode
7. Temperature unit
8. Manual mode / temp. override
9. Current / set temperature
10. Key lock
11. Settings
12. Additional temperature sensor
13. Cooling
14. Heating

Installation

ℹ The VS35 thermostat has been designed for flush mounting in a standard electrical box with a diameter of 60 mm.
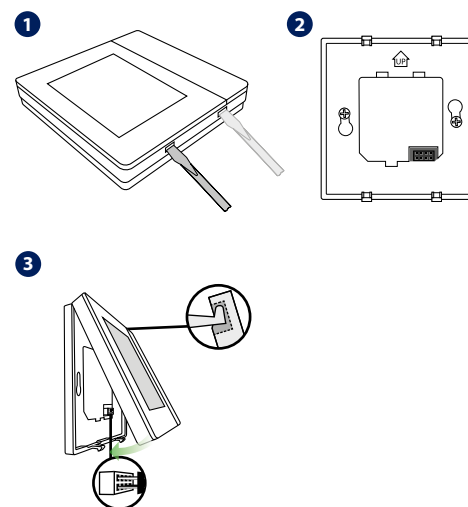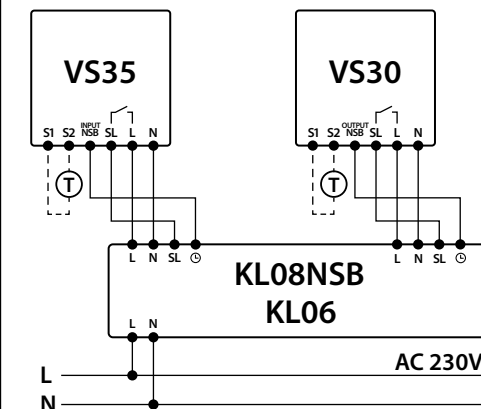
❶

❷

❸

Wiring diagrams

ℹ An additional temperature sensor Ⓣ is optional.
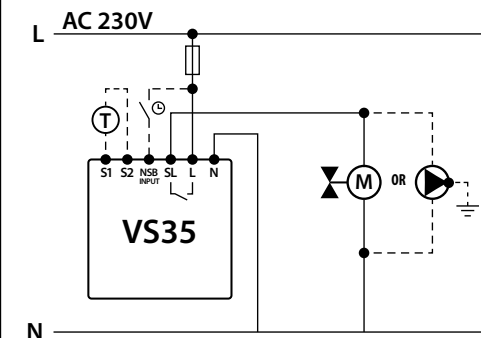
VS35 thermostat in connection with wiring centre

ℹ In this diagram, the VS30 thermostat manages the NSB function, more details about NSB function can be found on the next page.

VS35   VS30
KL08NSB
KL06
AC 230V
L
N

Note: In the KL06 wiring centre, the SL terminal is marked with an arrow icon ↓ .

ℹ NSB function and an additional temperature sensor Ⓣ is optional.

VS35 thermostat in connection with actuator or pump
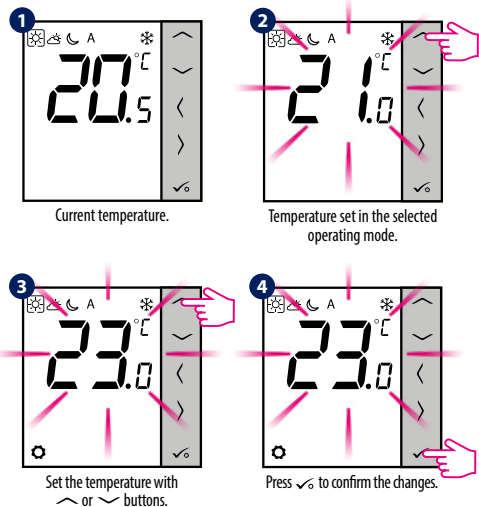

L AC 230V
VS35
M OR
N

VS30 thermostat in connection with a boiler with a "NO" voltage free terminal through the RM-16A relay

L AC 230V
VS35
RM-16A
NO
COM
NC
SL   INPUT 230V AC
N   POWER SUPPLY
L   230V AC / 50Hz
N
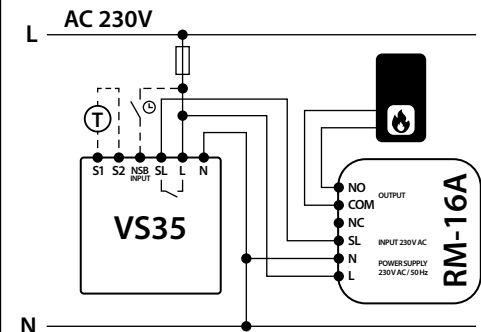
Temperature setting

ℹ️ Press any button to highlight the screen, then follow the steps below:

1 Current temperature.

2 Temperature set in the selected operating mode.

3 Set the temperature with ⌃ or ⌄ buttons.

4 Press ✓ to confirm the changes.

Manual mode - temperature settings

There are 4 temperature levels available. In manual mode only one temperature level is active (icon in the frame ☐ indicates which mode is currently chosen). For each temperature levels you can set a different temperature.
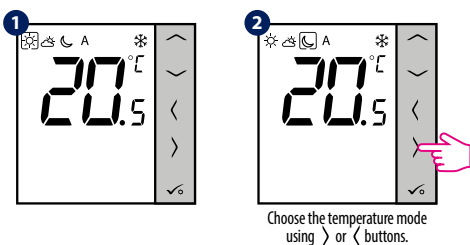
☼ - Comfort mode

☁ - Standard mode

☾ - Economic mode

❄ - Frost protection mode. Usually used in a longer period of absence or during the holidays (available only in heating mode).

ℹ️ Press any button to highlight the screen, then follow the steps below:

1

**2** Choose the temperature mode using ⟩ or ⟨ buttons.

NSB function - automatic mode

The NSB (Night SetBack) function can automatically change temperatures on VS35 daily thermostats via VS30 programmable thermostat connected to a wiring centre (or another external clock). NSB function switches between comfortable temperature ☼ and economic temperature ☾.

To activate the automatic mode, select the Ⓐ icon. On display together with the Ⓐ icon, the controller indicates active temperature mode: ☼ or ☾.

ℹ️ Press any button to highlight the screen, then follow the steps below:

1

2 Select the automatic mode using ⟩ or ⟨ buttons.
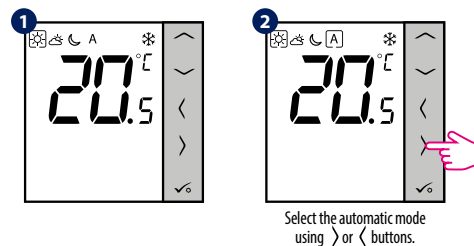
Note: For the NSB function to work, it is necessary to connect the wirings properly. Connection diagrams can be found on the previous page.

Changing the HEATING / COOLING mode

ℹ️ Press any button to highlight the screen, then follow the steps below:

1

2 OF FS (3 sec)

3

4 Choose mode using ⌃ or ⌄ buttons.

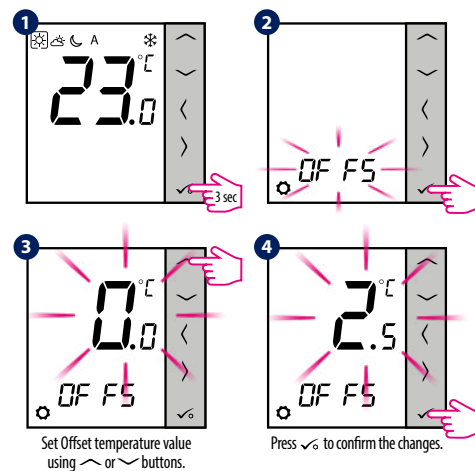**5** Press ✓ to confirm the changes.
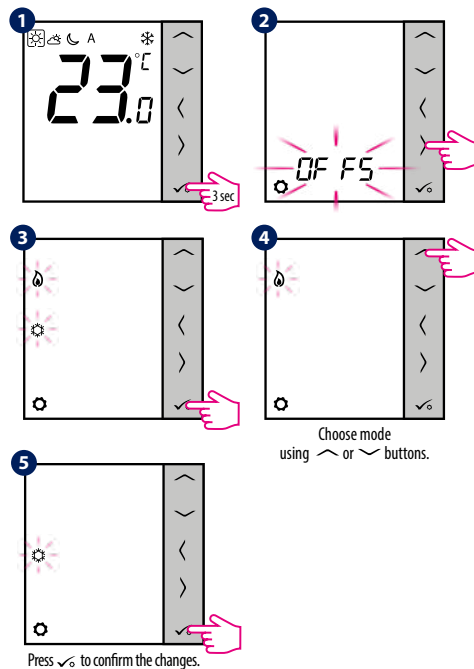
Note: Heating / cooling mode can also be set using the service parameter d18.

Offset function (temperature calibration)

The VS35 thermostat allows you to adjust the displayed temperature ± 3.0℃. You can do it according to the following steps:

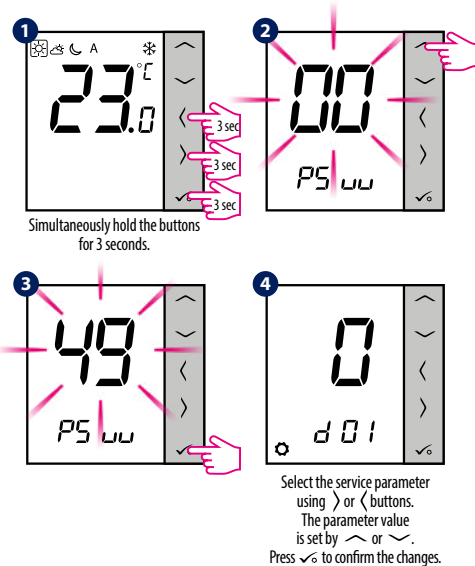ℹ️ Press any button to highlight the screen, then follow the steps below:

1 (3 sec)

2 OF FS

3 OF FS

4 OF FS

Set Offset temperature value using ⌃ or ⌄ buttons.

Press ✓ to confirm the changes.

Note: You can also set the Offset temperature value using the service parameter d02.

Installer settings

ℹ️ Press any button to highlight the screen, then follow the steps below:

1 Simultaneously hold the buttons for 3 seconds. (3 sec, 3 sec, 3 sec)

2 PS uu

3 PS uu

4 d 01

Select the service parameter using ⟩ or ⟨ buttons. The parameter value is set by ⌃ or ⌄. Press ✓ to confirm the changes.

Note: To restore the **thermostat's factory settings**, in step 2 set the PSuu to **47** code, and confirm the selection with the ✓ button.

dxx	Function	Value	Description	Default value
d01	Control method temperature	0	PWM algorithm	0
		1	Span ±0.25℃	
		2	Span ±0.5℃	
d02	Offset temperature	from -3.0℃ to +3.0℃	If the thermostat indicates wrong temperature, you can correct it by ± 3.0℃	0℃
d03	Using a floor temperature sensor (S1, S2)	0	No sensor	0
		1	Sensor is connected	
d04	External sensor used for air or floor temperature measurement (Function is active, when d03=1)	0	Thermostat measures the temperature only on the external sensor	0
		1	The sensor is used as a protection against overheating the floor	
d05	Cooling mode control method	1	Span ±0.5℃	2
		2	Span ±1.0℃	
d06	Type of thermoelectric actuator	0	NO - normally open	1
		1	NC - normally closed	
d07	Valve protection	0	OFF	1
		1	ON	
d08	Frost protection temperature	5-17℃	Frost protection / Holiday mode temperature	5℃
d12	Heating temperature limit	5-35℃	The maximum heating temperature that can be set by the user	35℃
d13	Cooling temperature limit	5-40℃	The minimum cooling temperature that can be set by the user	5℃
d14	Maximum floor temperature (this function is active in heating mode when d04 = 1)	6-45℃	In order to protect the floor from overheating, heating will be turned OFF, when the maximum temperature of the floor sensor will be reached	27℃
d15	Minimum floor temperature (this function is active in heating mode when d04 = 1)	6-45℃	In order to protect the floor, heating will be turned ON, when the minimum temperature of the floor sensor will be reached	10℃
d16	Lower floor temperature limit for cooling (this function is active when d04 = 1)	6-45℃	In order to protect the floor, cooling will be turned OFF, when the minimum temperature will be reached	6℃
d18	Operating mode HEATING / COOLING	0	Heating system	0
		1	Cooling system	

Error codes

Error code	Description
Err02	The maximum / minimum floor temperature has been exceeded
Err03	Temperature sensor is faulty
Err04	Temperature sensor is shorted