klima
underfloor heating systems

SF300 Digital thermostat
Operating instructions

Read this manual carefully and keep it with other warranty documents. Connection must be carried out by a qualified installer in accordance with local regulations. Before installing or disassembling the thermostat, always switch off the electricity in the meter cupboard. This thermostat can be installed in a single flush-mounting box 50 mm deep, according to standard DIN formats.
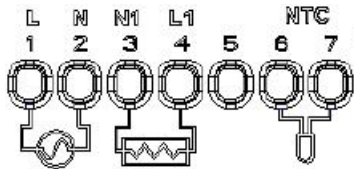
On/Off   Mode (□)   - key   + key

1. Technical details

Power: 90-230Vac 50/60Hz
Display accuracy: 0.5°C
Probe sensor: NTC(10k)1%
Contact capacity: 16A
Limit temp. range:1~70°C
Range of temp. adjustment: 5~35°C
Range of temp. display: 1~70°C

Insulating condition:
Normal environment
Running program:
Set per 1 week as a cycle
Output: Switch relay
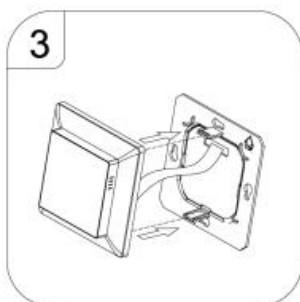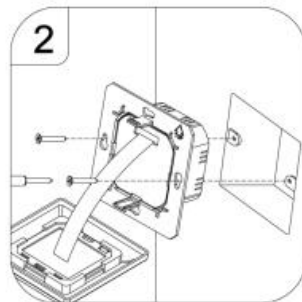Installation: recessed (in the wall)
Size: 86x86x27mm

2. Wiring diagram

1 Power supply (Line)
2 Power supply (Neutral)
3 Heating cable wire 1*
4 Heating cable wire 2*
5 N/A
6-7 Floor sensor connection

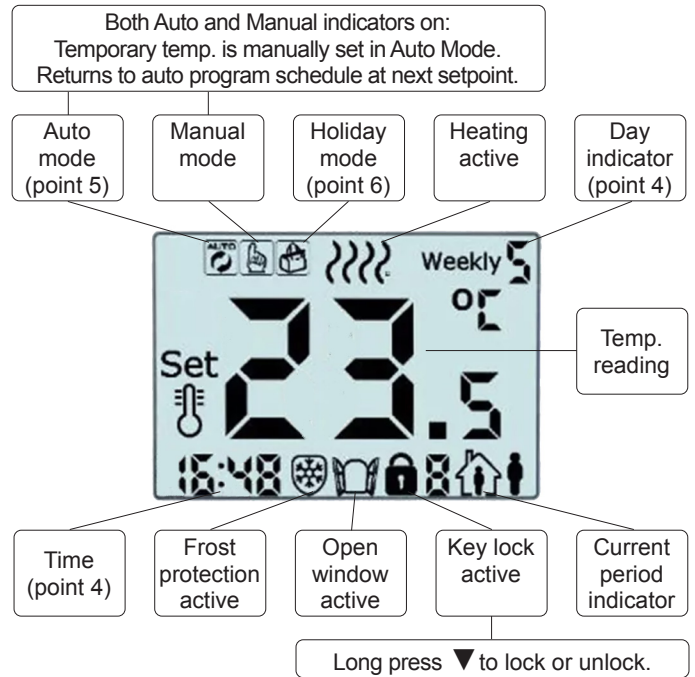L   N   N1   L1   NTC
1   2   3   4   5   6   7

* Order Heating wire 1 and 2 does not apply.
EARTH: Connect the earth of the heating cable and the earth of the power supply outside the thermostat.

3. Display icon explanantion

Both Auto and Manual indicators on:
Temporary temp. is manually set in Auto Mode.
Returns to auto program schedule at next setpoint.

Auto mode (point 5)   Manual mode   Holiday mode (point 6)   Heating active   Day indicator (point 4)

Temp. reading

Set

Time (point 4)   Frost protection active   Open window active   Key lock active   Current period indicator

Long press ▼ to lock or unlock.

4. Time setting
• (Thermostat on) Long press □ to enter options
• Press ▲ , choose 01 and press □ to enter
• Press ▼ or ▲ to set minutes
• Press □ to confirm and enter hour setting
• Press ▼ or ▲ to set hours
• Press □ to confirm
• Press ▼ or ▲ to set week day (Monday = 1, Sunday = 7)
• Press □ to confirm

5. Choose mode
Press □ to switch between **Auto Mode** or **Manual mode**.

6. ATTENTION: Change Sensor first!
Go to point 10b (Advanced settings B) and change sensor input to **N2** before programming.

7. Programming (Auto Mode)
(Thermostat on) Long press □ to enter options
press ▲ , choose 02 and then □ to enter programming
Press □ to choose hours, min. and temp. (with ▼ or ▲ and □)

There are 3 periods (6 setpoints) per day. See standard scedule for reference:

Wake up (On)	Away (Off)	Home (On)	Away (Off)	Home (On)	Sleep (Off)
Setpoint 1	Setpoint 2	Setpoint 3	Setpoint 4	Setpoint 5	Setpoint 6
06:00 20°C	08:00 15°C	11:30 20°C	13:30 15°C	17:00 20°C	22:00 15°C

8. Holiday Mode
• (Thermostat on) Long press □ to enter options
• Press ▲ , choose 03 and press □ to enter
• Press ▼ or ▲ to set days
• Press □ to confirm and enter temperature setting
• Press ▼ or ▲ to set temperature
• Press □ to confirm

9. Sensor error
When an "E1" or "E2" code is shown the sensor is wrongly connected or broken. The thermostat will stop heating until the sensor is connected correctly or replaced.

10a. Advanced settings A

**WARNING: Changing advanced settings may cause undesired results.
Please consult your installer before entering this menu!**

Press the on/off button once, long press □ to enter Advanced settings
menu A. Press □ to choose between A1 to AE. Press ▼ or ▲ to adjust.

No.	Item	Parameters	Default
A1	Measured temp. calibration	-9°C to +9°C	-1 °C
A2	Differential	0.5°C to 2.5°C	1°C
A3	Key lock	0: Half lock 1: Full lock	0
A4	Power with memory function	0: Power with memory function 1: Shutdown power after power off 2: Shutdown power after power on	0
A5	Backlight time	5 to 30 seconds	10 sec
A6	Programmable	0: 5+2 (Week 1-5 and weekend 6-7) 1: 6+1 (Week 1-6 and sunday 7) 2: 7 (Week 1-7)	0
A7	Lowest temp. setting	1 - 10ºC	5ºC
A8	Highest temp.setting	20-70ºC	35ºC
A9	Low temp.protection	1: 1ºC - 10ºC Function off: > 10ºC Display (-----)	5ºC
AA	High temp.protection	1: 35ºC-70ºC 2: Function off: < 35ºC Display (-----)	45ºC
AB	High temp. protection differential	1-9	2
AC	Running temp. of open window function	1: 10 - 20ºC, 2: Function off: < 10ºC Display (-----)	1
AD	Running time of open window function	10 - 20 min	10
AE	Reset to factory settings	Long press □ until display goes blank	-

10b. Advanced settings B

Press the on/off button once, long press ▲ to enter Advanced settings
menu B. Press □ to choose between BN to BO. Press ▼ or ▲ to
adjust.

No.	Item	Parameters	Default
BN	Options of sensor	N1 : Built-In Room sensor N2: Floor sensor N3: Built-In Room sensor with floor sensor as limiter	N1 *(Change to N2 when using floorsensor with underfloor heating.)*
BC	Descaling	0: Disable descaling function 1: Enable descaling function	0
Bo	Product information	Can't be changed	-

Return difference:
The room sensor has a max temperature of 45 degrees as a factory
default. When the max temperature for the room sensor reaches 45
degrees and goes above this temperature, then the underfloor heating
will switch off and an audible alarm will sound, the alarm will not turn off
until the room sensor goes below 43 degrees.

Sensor Error Codes:
When the error code "E1" shows up on the controller it indicates a room
sensor failure or if the "E2" error code shows up on the controller it indi-
cates a floor sensor failure. The thermostat will not heat until the error
code is fixed.

Warranty:
We offer a 2-year warranty from date of purchase of the thermostat.