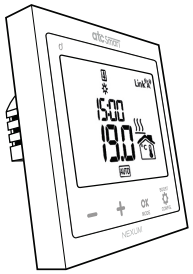
atc smart

NEXUM RF CONNECTED

DIGITAL THERMOSTAT



PRELIMINARY WARNINGS

Read these instructions carefully and keep them for future reference. The installation of this system must be carried out by a professional electrician. Any claim on the warranty will not be valid if the current regulations have not been taken into account.

TECHNICAL DATA

- Dimensions: 86mm x 86mm x 40mm
- Power supply: 230V-50Hz
- Output
  With resistive load 16A/ 250V
  With inductive load cos ϕ= 0,4 · 9A/ 250V
- Temperature precision: +/- 0.1ºC @ 20ºC
- Floor temperature sensor supplied
  NTC 10KΩ, β=3950K (Beta)
  Length of sensor cable 3m.
- Communication frequency: 869.525Mhz
- Temperature control:
  Pi 15 minutes — Pi 30 minutes
  Hysteresis 0.25ºC — Hysteresis 0.35ºC
  Hysteresis 0.50ºC — Hysteresis 0.75ºC
- Ambient temperature range: +7ºC a +35ºC
- Floor temperature limit range +20ºC a 45ºC
- Weekly programming in blocks of 30/60 minutes.
- Mounting on recessed mounting box
- Connection type: 2.5 mm² screw terminals
- IP20

ERROR MESSAGES

If SC F or OC F are displayed, change the floor sensor with a new one. If SC A or OC A are displayed the thermostat requires replacement. Contact your local electrical wholesaler for further details.

SC Short circuit (Short circuit sensor)

SC A (Ambient)

SC F (Floor)

OC Open circuit (open sensor / no sensor)

OC A (Ambient)

OC F (Floor)

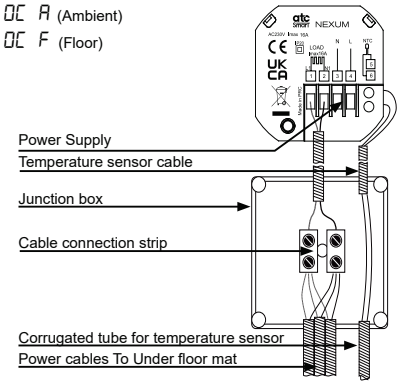


Figure 1

20250527
Manual_TermostatoSREX02_DINA3_V05

INSTALLATION

THERMOSTAT LOCATION

The Nexum thermostat is designed for both electric underfloor heating and control of other devices, this installation shows the method of installation requirements for electric underfloor heating.
The Nexum thermostat should always be mounted on the wall at a height of 1200-1500mm above the finished floor level and installed onto a prepared recessed mounting box.
The mounting box must be provided with 3 corrugated conduits.

- Power input
- Power output
- Floor temperature sensor

It is recommended to install the thermostat on an internal wall. External walls should be avoided as it can provide an incorrect temperature reading. If installing the Nexum thermostat for bathroom underfloor heating, it should be mounted outside of the bathroom door to ensure compliance with electrical wiring rules - in any case the thermostat should be mounted outside Zone 2 (UK) and Zone 3 (Ireland). The thermostat should be installed on a wall that is neither the most favourable nor the least favourable in terms of heat loss.

NOTES
Do not install the thermostat in an area with direct sunlight.
It is recommended to install a junction box and/or connections 30cm above the floor (see Figure 2)

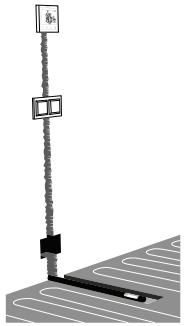


Figure 2
Example of thermostat installation

THERMOSTAT MOUNTING

The NEXUM thermostat is composed of 2 parts:

- Front (Control electronics and display)
- Back (Power Electronics)

To separate these two parts and install the thermostat, proceed as follows:
NOTE: The two parts are connected by a flat cable. Carefully separate.

Step 1: Carefully lift the front up

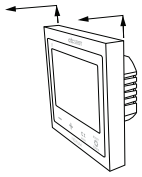


Fig.3

Step 2: Disconnect the flat cable between the front and back

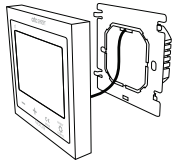


Fig.4

Step 3: Connect the wires to the back of the thermostat (See Figure 1).

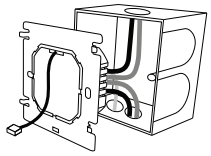


Fig.5

Step 4: Screw the back to the electric back box

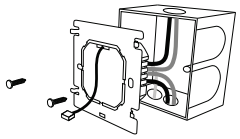


Fig.6

Step 5: Connect the flat cable and re-attach the front of the thermostat.

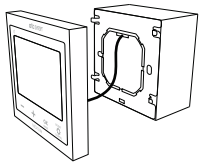


Fig.7

Step 6: Carefully mount the front to the back

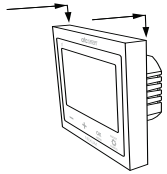


Fig.8

CONNECTIONS

On the rear of the thermostat the wiring diagram is shown:
Terminals 1 and 2: Connection for the load
Terminals 3 and 4: Power supply input
Terminals 5 and 6: Floor temperature sensor

Alternative floor sensors can be used see item 12 Advanced Settings for more information.

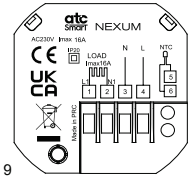


Figure 9

ELECTRICAL CONNECTION

The following figure shows the electrical connection at the thermostat, at the junction box or connections at 30 cm above the floor and the necessary connections:

PLACEMENT OF THE FLOOR TEMPERATURE SENSOR

The floor temperature sensor consists of:

- Sensor Bulb
- Cable

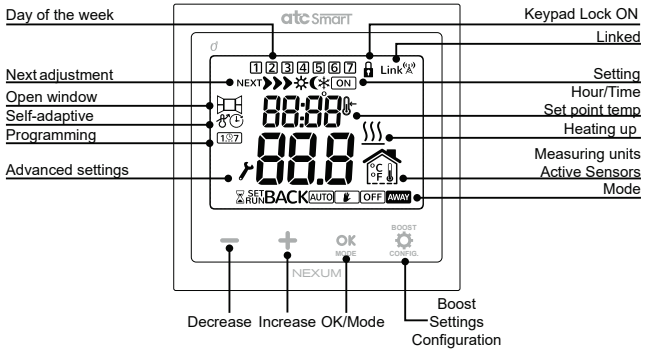
The cable is 3 metres long to fit the installation, 1.5m vertical run and 40-50 cm horizontal run (buried in the ground). Probe cable can be cut to length.
NOTE: The corrugated conduit must not cross the heating cables and must be installed mid way between the heating loops.

The probe cable must be installed in individual corrugated conduit, and must not be shared with any other cables. Low voltage supply to the heating cables could cause errors in the reading.
The sensor bulb should be installed inside a corrugated conduit, plugging the end of the conduit that is submerged in the ground to prevent mortar or self-levelling agent from entering and to prevent the sensor from getting stuck. In this way, the sensor can be replaced by a new one in case of failure. The sensor must be installed in such a way that it is equidistant between heating cables, as shown in Figure 2.

OPERATION

DISPLAY AND KEYBOARD

The NEXUM thermostat has the following appearance:



Decrease	Decrease data value / Move between menus	
Increase	Increase data value / Move between the menus	
OK / Mode	Switching between operating modes	
	Confirm setting and go to next	
Boost Settings Configuration	1sec	Activate boost
	3sec	Access configuration
	10sec	Access advanced settings

Keypad Lock
Pressing the − and + buttons simultaneously for 3 seconds will lock the keypad and the display will appear:

Loc

If it is locked, the lock appears on the screen.

Unlocking is done in the same way except if you activate the password, in which case the device will ask for the saved password. When unlocked, the following will appear:

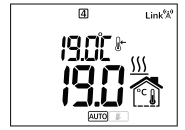
UnL

OPERATING MODE: THERMOSTAT

Use the **OK** / MODE key to select between AUTO, MANUAL and OFF mode

AUTO: The thermostat follows the temperature set in the programming. Press the CONFIG button for 3 seconds. Select the setting to be modified with the **OK** button (Comfort / Eco / Anti Frost temperatures). Then choose programming blocks of 30 or 60 minutes. Finally, set the start and end time for each temperature setting (Comfort) (Eco) during the week.

AUTO MODIFIED: The setpoint temperature can be changed temporarily by pressing the +/- buttons. This change will remain active until the next temperature setting change or until midnight, when the temperature will return to the pre-set value. A flashing hand will be displayed next to the AUTO symbol. To return the thermostat to AUTO mode press **OK** until AUTO is shown on the display.



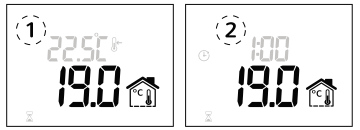
MANUAL: The thermostat works with the setpoint temperature that is set from the main screen and works as a simple digital thermostat. The setpoint temperature can be raised and lowered with the + / - keys.

OFF: The thermostat remains off. Time and room temperature are displayed.

AWAY: Away mode is activated only via geolocation or manually from the app. It reduces the setpoint temperature by a number of degrees that is configured for each unit from the app. The default is 2 degrees.
If any device is in AWAY, then all the devices in the home will be in AWAY. In the event of a key press on any device that is in AWAY, the home (all the devices in it) will leave AWAY for 2 hours.

EASY: Easy mode is a simple operating mode in which only the + and - buttons on the thermostat are used to increase or decrease the temperature. No other functions are available and change of modes are not possible. This mode is activated and deactivated from menu 07 of the advanced settings.

BOOST: The thermostat has a Boost mode that allows the user to choose a higher setpoint temperature than the one programmed in AUTO or MANUAL mode and a duration time for this temperature. As soon as the Boost button is pressed, the hourglass and the set temperature start flashing. ① Adjust the set temperature with -/+ and confirm with OK.
② Set the Boost duration time with -/+, confirm with OK.



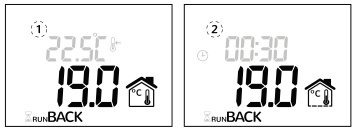
If you do not confirm by pressing OK within 10 seconds, the operating mode before pressing the Boost button is restored.
To exit Boost mode, press the Boost key. Note: Boost not available in timer mode.

RUNBACK/SETBACK: RunBack mode is designed for when the thermostat is installed in areas where restricted user control is required such as rental or holiday accommodation, limiting the temperature and time the appliance is switched on.

RunBack sets a base temperature (e.g. 22ºC) at which the guest will operate the appliance when they wish to switch it on. It also sets a maximum temperature (e.g. 25ºC), which is the maximum temperature at which the guest can operate the appliance, and a time range, which is the time duration (e.g. 30-480min) between which the guest can switch on the appliance.

SetBack allows to set a minimum temperature that the room will not fall below when RunBack is not active. If the SetBack mode is not enabled at the end of the operating period, the appliance will remain OFF. All these settings are configured from the advanced setting 8.

When the guest wants to turn on the thermostat, they will be able to set the temperature ① and the time ② of use within the parameters that are set.



OPERATING MODE: TIMER

Allows programming the operation of electrical devices with ON/OFF states, regardless of temperature setpoints. This function is activated from menu 13 of the advanced settings (option 04 TIMER).
Use the **OK** / MODE key to select between AUTO and MANUAL.

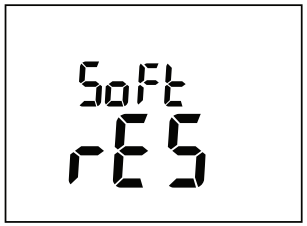
AUTO: Follow the programming set to turn ON and OFF. Press the CONFIG ⚙ key for 3 seconds. Set the start and end time of each ON period throughout each day of the week. Please see auto section of operating mode: Thermostat.

MANUAL: To switch between ON and OFF, use the +/- keys.

CONNECT TO THE TEVOLVE APP

To use the thermostat with the Tevolve app, first pair the thermostat with the gateway (available separately). Activate the pairing mode on the gateway by pressing the link button ① for 2 seconds (do not hold the button for more than 5 seconds). Details of this can be found in the instruction manual of the Tevolve gateway.
Once this has been done, press and hold the OK button on the thermostat for 3 seconds. The Link symbol will appear on the screen.
If the thermostat has been linked to the gateway and for some reason communication is lost, the Link icon starts flashing.

SOFT RESET



There are two ways to RESET the thermostat to return it to factory settings.

NOTE: with this SOFT RESET, both the factory values are restored and any connections to the gateway are cleared.

Through menu 16 of the advanced settings: Access this menu and press OK to verify the RESET.

Through the MODE and BOOST/CONFIG buttons. By pressing the MODE and BOOST/CONFIG buttons at the same time for 10 seconds. Press OK to confirm.

ECO DESIGN 2025

This control has the following control functions:
TW (0/f2/f3/f4/f5/0/0/0)

CORRECT DISPOSAL OF THIS PRODUCT

Waste Electrical & Electronic Equipment)
(Applicable in the European Union and other European countries with separate collection systems)

This marking shown on the product or its literature, indicates that it should not be disposed of with other household wastes at the end of its working life.
To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial wastes for disposal.

GUARANTEE

Your NEXUM thermostat is guaranteed for 1 year from the date of purchase – during this period we will repair or exchange, at our discretion, any faulty or defective parts providing the thermostat has been used in accordance with the operating & installation instructions in this manual and has not been misused or mistreated in any way. Any un-authorised repair or attempted repair will invalidate the guarantee.

You may be asked to return the product to our workshop for inspection to establish whether the fault is covered under the guarantee. Transportation charges are not covered under the guarantee.
The guarantee is valid in the UK and Ireland only.
This guarantee is additional to your statutory rights.
In the unlikely event of a problem with your appliance please contact your supplier.

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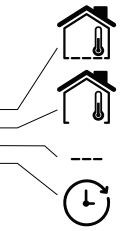
ADVANCED SETTINGS

If you have a password activated, you must enter it in order to access these advanced settings.

Nº	Setting	Default value	Description
01	Date and time* (Figure. 10)	00:00:00	**01.1** Set hours and minutes. Set with -/+, OK to confirm and next **01.2** Set Year, Month, Day. Set with -/+, OK to confirm and next. **01.3** dSt Select On or OFF with -/+, OK to validate(automatic summer/ winter time change)
02	Temperature Unit	ºC	**02** Select between ºC or ºF. Adjust with -/+ OK to confirm and next.
03	Control type	PID15	**03** Select between: Pi 15 minutes, Pi 30 minutes, Hysteresis 0.25ºC, Hysteresis 0.35ºC, Hysteresis 0.50ºC, Hysteresis 0.75ºC Adjust with -/+, OK to confirm and next
04	Measurement correction ambient sensor	-	**04** Alternates between the compensation and the corrected temperature. Adjust with +/- between +3º and -3º, OK to confirm and next.
05	Open window detection	OFF	**05** Detection of a fast decrease in temperature at the ambient temperature sensor when a window is opened, switches the load off until the temperature increases. Select ON/OFF with -/+, OK to confirm and next.
06	Self-adaptive	OFF	**06** Allows the thermostat to turn on in advance to achieve the setpoint temperature at the programmed time. (6 hours maximum) Select between ON or OFF. Set with -/+, OK to confirm and next.
07	EASY Mode	OFF	**07** Select between ON or OFF. Adjust with -/+, OK to confirm and next.
08	RunBack/ SetBack (Figure. 11)	**08.1** OFF **08.2** 21ºC **08.3** 22ºC **08.4** 30´ **08.5** OFF **08.5** 18ºC	**08.1** Runback ON/OFF. Adjust with -/+, OK to confirm and next **08.2** Base temperature Runback. Adjust with -/+, OK to confirm and next **08.3** Maximum temperature. Adjust with -/+, OK to confirm and next **08.4** Maximum time Adjust between 30 and 480 minutes (00:30-08:00) with -/+, OK to confirm and next **08.5** Setback, ON/OFF. Adjust with -/+, OK to confirm and next **08.6** Setback temperature Adjust with -/+, OK to confirm and next
09	Password	**09.1** ON **09.2** 0000	**09.1** Password, ON/OFF. Set with -/+, OK to confirm and next **09.2** Set password. Set each digit with -/+, OK to confirm and then next
10	Beep	ON	**10** Beep ON/OFF. Adjust with -/+, OK to confirm and next
11	Maximum floor temperature	29.0ºC	**11** The maximum temperature and the current measurement alternate. Adjust with -/+ between 20ºC and 45ºC (steps 0.5ºC), OK to confirm and next. Note: Check the maximum allowed temperature for laminate floors with flooring supplier.
12	Floor sensor value (Figure. 12)	**12.1** 10K **12.2** 3950	**12.1** Select value between 6K8, 10K, 12K, 15K, 33K, 47K. Adjust with -/+, OK to confirm and next **12.2** Beta value setting. Set each digit with -/+, OK to confirm and next
13	Sensor application	Room temperature probe and floor probe	**13** Sensor configuration to be used. Select from 01. Ambient sensor and floor sensor 02. Only ambient sensor 03. Only floor sensor (if blinks means max. temp reaches) 04. TIMER (Without temperature measurement) Adjust with -/+, OK to confirm and next
14	Adjust connected power	1550W	**14** From 150 W to 5000 W, steps of 50 W. Adjust with -/+, OK to confirm and next
15	Firmware version	-	Device version
16	Reset	-	OK to confirm

* If the device is connected (Link), it is not possible to set the date and time; this data is collected from the control unit to which it is connected.



Set hours / Set Year / Set Month / Set Day / DST (On/Off)

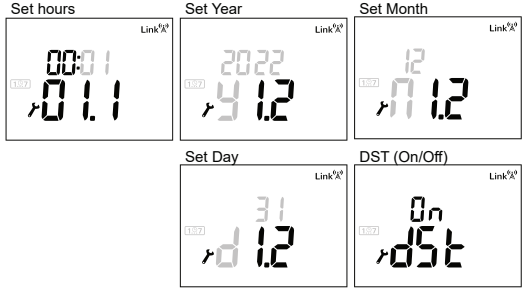


Figure 10

RunBack (On/Off) / Base temp. Runback / Maximum temperature / Maximum time RunBack / SetBack (On/Off) / Setback temperature

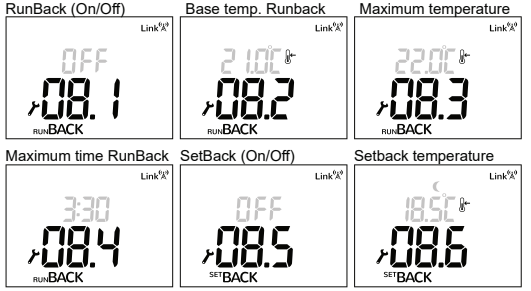


Figure 11

Floor sensor value / Select value / Beta value / Set each digit

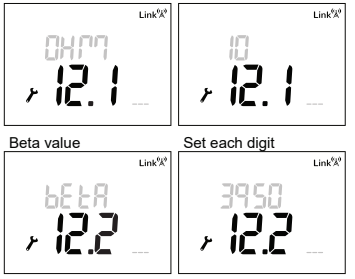


Figure 12