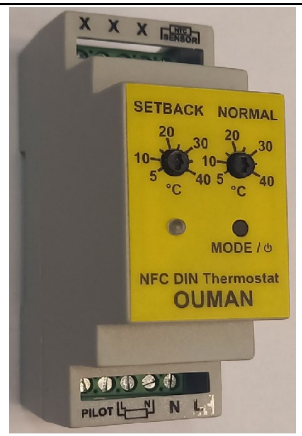


NFC DIN rail thermostat

Installation and operating instructions

This manual describes the functions and technical specification of NFC DIN rail thermostat. These instructions help the user to control the thermostat and the electrician to install and setup the thermostat.

TECHNICAL SPECIFICATIONS

Power supply: 230 V 50/60 Hz
Maximum load: 16 A (resistive)
Temperature range: +5°C…+40°C
Hysteresis: 0,5 °C
Temperature setback: Pilot wire 230 V 50/60 Hz
IP class: IP20
Color: Grey
Sensors: NTC floor sensor. One 10 kΩ NTC cable included, length 3 m.
Approvals: CE
Smartphone application minimum requirements:
Android 6.0 phone with NFC interface
iPhone 7

INSTALLATION

Installation must be done by a qualified electrician in accordance with wiring and building regulations. Before installation, disconnect any power to the thermostat's mains.

During installation of the thermostat, power to the thermostat must be always disconnected or isolated!

By using flat head screwdriver pull the DIN rail locking mechanism to opened position.

Position the thermostat to DIN rail. The thermostat requires rail space of 2 DIN modules.

Push the locking mechanism back to closed position.

Connect the wires to screw terminals.

SENSOR: Floor temperature sensor NTC type (6.8, 10, 12, 15, 22, 33, 47 or 100 kΩ)

PILOT: Pilot wire, if used
L with resistor symbol: Heating cable connection (Line)
N with resistor symbol: Heating cable connection (Neutral)
N: Power connection (Neutral)
L: Power connection (Line)

STARTUP

After connecting the power to the thermostat for the first time, all parameters will be on default settings. Other possible settings values are in brackets.

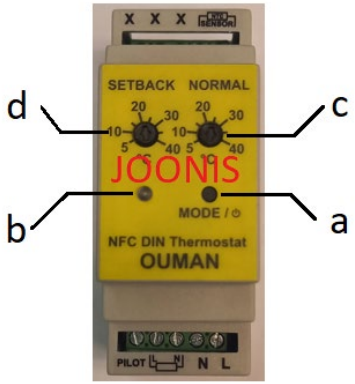
Heating mode	**Manual** (Automatic)
Floor sensor type	**10 kΩ** (6.8, 12, 15, 22, 33, 47, 100 kΩ)
Adaptive start	**off** (on)
Week schedule	**Constant 21 °C temperature** (freely configurable from smartphone app)

Note: Wooden floors shall not be heated above 28°C.

USER MANUAL

1 User interface overview

The user interface comprises of a mode and power button (a), red-green LED indicator (b), temperature adjustment knob (c) and setback adjustment knob (d).



Use small flat head screwdriver for knob adjustment and for pushing the mode and power button.

2 LED indicator

LED off – thermostat is turned off.
Green – manual mode, heating off.
Red – manual mode, heating on.
Green & short red blink every 5 seconds - automatic mode, heating off.
Red & short green blink every 5 seconds - automatic mode, heating on.
Red blinking fast – sensor error. Sensor not connected or short circuit detected.
Green blinks slowly 3x – NFC data received successfully.
Red blinks slowly 3x – mode changed to Manual by pressing "MODE" button.
Red and green blink slowly 3x – mode changed to Automatic by pressing "MODE" button.

3 Thermostat operation and mode selection

Turn thermostat on or off by holding down the "MODE" button for 5 seconds.

The thermostat has **2 heating modes** - Manual and Automatic mode. The modes can be toggled by holding down the "MODE" button for 1 second.

In **Manual mode** the thermostat acts like regular knob thermostat. Floor temperature is regulated according to "NORMAL" temperature adjustment knob.

Automatic mode regulates floor temperature according to week schedule. The schedule can be configured from smartphone application only (see next chapter). By default, the week schedule is configured to constant 21°C setpoint. In automatic mode it is possible to use adaptive start feature.

If a full-period line voltage is applied to **pilot wire input** the thermostat regulates temperature according to setback temperature setting. Setback temperature can be adjusted from "SETBACK" knob or from smartphone app. Last modified value takes effect – it means smartphone app can override knob selection and vice versa.

If the line voltage is switched off from pilot input, the thermostat regulates temperature according to "NORMAL" temperature adjustment knob. NB! Pilot wire input has no effect in Automatic mode.

4 Smartphone application

Smartphone application allows to control the thermostat over NFC (Near Field Communication) interface. All the settings of the thermostat can be configured through the app.

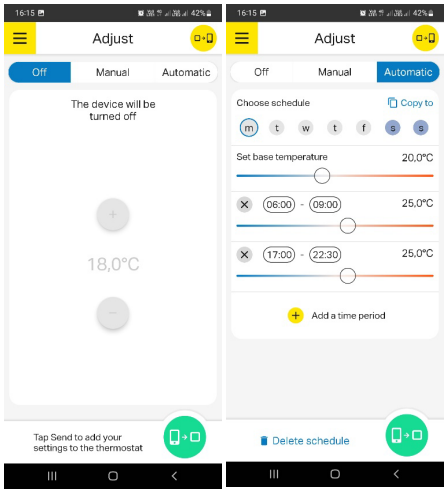
In case Android phone, download and install the reference app from following QR-code link:

"Unknown sources" must be enabled under phone's security settings to be able to install this app.

Please contact Ouman sales representative to get access to iPhone reference app.

Read configuration from thermostat
Each time the app is started a "read" screen is displayed, which asks to place your phone near the thermostat. Move your phone close to thermostat's front cover (0…3 cm) and wait until the app displays success (or failure) message. In case read operation succeeded the main view is displayed and the phone can be moved away from thermostat. If necessary, settings can be read from thermostat again by tapping yellow button (thermostat -> phone) in top right corner of the screen:

Main view and heating mode selection
In main view it is possible to select heating mode (Manual, Automatic) or turn thermostat off.



Week schedule
When automatic mode is selected, a week schedule can be configured. Schedule of each weekday can be viewed and modified by tapping on circular weekday buttons. By tapping "Add time period", it is possible to add up to 3 time periods with different setpoint and duration per one day. Base temperature value defines the temperature setpoint between these periods.

Weekday button changes color tone if the schedule of the day is different compared to other days. Days with same schedule settings have the same color tone.

To copy the schedule to other weekdays, tap "Copy to" and select weekdays where you want to copy the schedule of currently selected day.

Week schedule can be reset by tapping "Delete schedule" in the bottom left corner of the main view.

Advanced settings
Advanced settings are accessed from the side menu by tapping on the "burger" icon. You can select sensor type, adaptive start (on/off) and setback temperature value.

If **adaptive start** is enabled, heating in automatic mode is turned on in advance before each positive setpoint change (i.e. when changing from low temperature period to higher temperature period). Temperature setpoint configured in schedule is reached approximately at the same time as specified. If adaptive start is turned off, the thermostat simply changes the setpoint according to schedule and heating is not turned on in advance.

Import / export settings
It is possible to import or export your settings to/from phone's memory. This is useful for reusing different week schedule configurations.

Language can be selected from the side menu. In iPhone app the language is selected automatically.

To write new configuration to thermostat, tap the green button (phone -> thermostat) in the bottom right corner of the screen:

A screen appears which tells to move the phone close to thermostat (like in case of read operation). Hold the phone close to thermostat's front cover and wait until success or failure message is displayed. Do not remove the phone from thermostat before this message appears.

If NFC write operation succeeds and thermostat receives correct settings, the **LED indicator blinks green 3x.**

Time synchronization
During every NFC write operation the clock inside the thermostat is automatically synchronized to ensure correct operation of automatic mode. In case of power failure, the clock runs on built-in backup capacitor and remains operational for at least 48 hours. Please note that the thermostat does not automatically change between summer and winter time.