



MCD5 Operations Manual - Hydronic

A Comfort Heat floor heating system has been installed in your floor. Floor heating warms from the ground up giving you an unparalleled feeling of comfort. This heating system is controlled by an electronic thermostat and floor sensor for optimum temperature control.

PRIOR TO TURNING ON

The sub-floor slab or screed must be fully cured before turning the heating on. Wait at least 3 weeks before turning on and increase the floor temperature gradually over 2-3 days.

WARRANTY

THERMOSTAT & SENSOR - 2 years

TEMPERATURE SETTINGS

FLOOR TEMPERATURE [CERAMIC] - 23°C ~ 25°C
FLOOR TEMPERATURE [CARPET] - 23°C ~ 25°C
FLOOR TEMPERATURE [TIMBER] - 24°C max.

The MICROTEMP RANGE of electronic thermostats are specifically designed for underfloor heating systems. The thermostats are vertically flush mounted and have a 2pole isolator with 16A output relay.

MCD5 - The MCD5 touch screen thermostat has a built in programmable time-clock to automatically turn the floor heating system ON and OFF at selected times. During the OFF periods the floor does not turn OFF but programs the floor temperature to your selected 'set back temperature'. The floor is heating when the temperature display turns to red.



MCD5

TECHNICAL DATA - MCD5

| | |
|-------------------------|---|
| Supply Voltage: | 240V AC, 50/60hz |
| Output Relay: | 16A SPST, 3600W max |
| Switching Differential: | 0.4 degC |
| Built-in Switch: | 2 pole 16A |
| Temperature Range: | 0/+50 degC |
| Clock Function: | Up to 7 different 4 or 6 event program combinations |
| Display: | 220 x 176 pixel TFT - colour touch |
| Housing/protection: | IP21 |
| Dimensions (HxWxD): | H 114mm x W84mm x D40mm |
| Mounted: | Vertical or Horizontal |



TURNING ON FOR THE FIRST TIME [Factory Reset]

>Press 'MENU' button
>Press the 'Arrow' button until you see 'Engineer Settings' > Press OK
>Press the 'Arrow' button until you see 'Factory Reset' > Press OK
>Press the 'Arrow' button until you see 'RESET' > Press OK
The thermostat will turn off and on.
Set language>OK Set time>OK Set date>OK
The thermostat is now set to 'factory default' settings and is fully operational in auto mode. Default settings can be changed as detailed below.

PROGRAMMING

>Press 'MENU' button
>Press the 'Arrow' button until you see 'User Settings' > Press OK
>Press the 'Arrow' button until you see '4-Event Schedule' > Press OK
>Select from either 5:2 6:1 or 7:0 > Press OK > Press Exit

>Press 'MENU' button
>Press the 'Arrow' button until you see '4-Event Schedule' > Press OK
>Set day(s) of the week> Press OK
>Set Morning > Press OK
>Press the 'Arrow' button to set Morning 'ON' time > Press OK
>Press the 'Arrow' button to set Morning 'ON' temperature > Press OK
>Set Daytime > Press OK
>Press the 'Arrow' button to set Daytime 'OFF' time > Press OK
>Press the 'Arrow' button to set Daytime 'OFF' temperature > Press OK (normal setting is 20°C - do not set to 0°C)
>Set evening > Press OK
>Press the 'Arrow' button to set Evening 'ON' time > Press OK
>Press the 'Arrow' button to set Evening 'ON' temperature > Press OK
>Set Night > Press OK
>Press the 'Arrow' button to set Night 'OFF' time > Press OK
>Press the 'Arrow' button to set Night 'OFF' temperature > Press OK (normal setting is 20°C - do not set to 0°C)
Repeat the process depending on your weekly configuration

MANUAL MODE SETUP

Override of the auto on /off programmed setting.
>Press 'MANUAL' button
>Set temperature> Press OK - Hand will appear with set temperature
To change the thermostat back to automatic mode - press the 'AUTO' button

COMFORT MODE

Comfort mode will temporary override auto settings for a single length of time.
Once the time expires the thermostat will revert to the auto programmed setting.
>Press 'COMFORT' button
>Set temperature > Press OK
>Set length of time > Press OK

Understanding Adaptive Function? ** IMPORTANT FOR IN SLAB INSTALLATIONS **

Adaptive function allows the thermostats to predict when the floor heating should be turned on. A thermostat set to 28°C at 6am will begin to turn on hours before (based on the last few days temperature) in an attempt to be at 28°C at 6am

Time of use meter

The Smart Power Meter varies the power tariff rate at different times of the day. Overnight the rate is at 'Off Peak' rates and during the afternoon and evenings there is the 'Peak' rate. At the times between these there are 'Shoulder' rates. The exact times of these rates should be confirmed from your power provider.
As the cost of electricity during 'Peak' times is more expensive than during the 'Off Peak' or 'Shoulder' times the adaptive function on the MCD4 thermostat should be programmed to 'OFF'.

Benefits of Adaptive Function (non inslab installations)

As the weather becomes cooler, your thermostat will predict what time to turn on your system so your floors will always be warm and at your set temperature, as programmed.

Set the Adaptive Function to 'Off' (default setting for MCD5 is 'ON')

>Press MENU button
>Press the 'Arrow' button until you see 'Engineer Settings' > Press OK
>Press the 'Arrow' button until you see 'Adaptive Function' > Press OK
>Press the 'Arrow' button until you see 'OFF' > Press OK

Factory Default settings:

weekdays (day 1-5):
on at 6am - 25°C
off (set back) at 8am - 20°C
on at 4pm - 25°C
off (set back) at 10.30pm - 20°C

week - ends (day 6-7):

on at 8am - 25°C
off (set back) at 11pm - 20°C

note: thermostat does not "turn off" but changes to a "set back" temperature. This set back temperature can be changed.

OJ Microline® Touch



MCD5-1999

- 2" colour touch display
- User-friendly interface
- Energy monitoring
- QR-code read outs
- Compatible with existing floor sensors

“All-in-one” clock thermostat for electric underfloor heating creates optimal comfort temperature and the lowest possible energy consumption.

- Easy touch menu navigation
- 12 different language choices
- Set and forget! Adaptive control for comfort temperature when required - prepared for the new EU ECO directive requirements.
- Snap-mount front cover for easy installation
- Compatible with existing floor sensors, making it the best choice for renovations
- Built-in holiday calendar and clock function for automatic comfort and setback
- Automatically adjusts to daylight saving time
- 5-year battery backup of clock and calendar
- QR-code read outs for easy handling and support
- Power measurement for optimal energy management

Thermostat control

Electronic thermostat for temperature control via a sensor placed either externally in the floor or built into the thermostat.

Built-in clock/calendar with battery backup

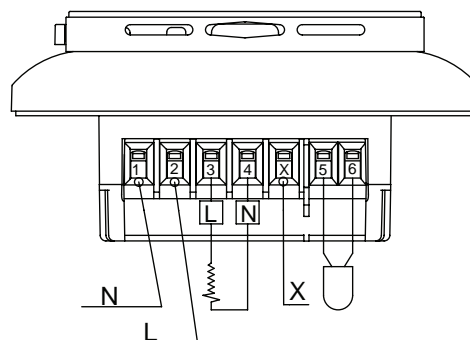
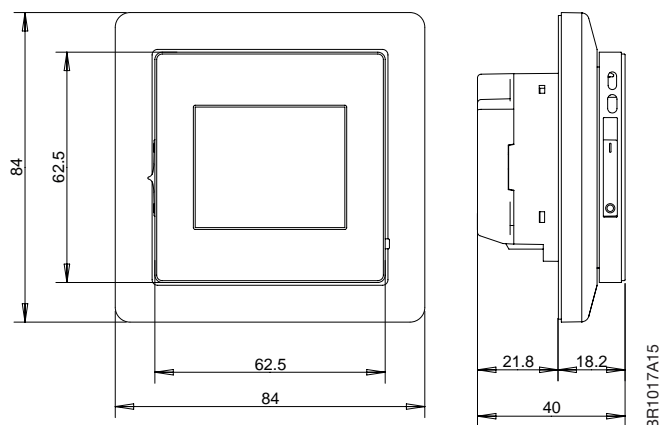
Includes 4- and 6-event program for automatic comfort and setback temperature. Up to 7 different program combinations can be created, where a program consists of working day and home days.

Colour display

Unique user interface with new menus and touch-based navigation for easy programming and read-outs.



Save up to 36% CO₂



BR1017A16

Monitoring of energy consumption

Total switch-on can be read-out for overall energy consumption monitoring.

Factory-set of events

The thermostat is delivered with factory-set programs:

DAY 1-5 (working days)

| EVENT TIME | TEMPERATURE |
|---------------|---------------|
| 1 06:00-08:00 | Comfort 20 °C |
| 2 08:00-16:00 | Setback 15 °C |
| 3 16:00-23:00 | Comfort 20 °C |
| 4 23:00-06:00 | Setback 15 °C |

DAY 6-7 (home days)

| EVENT TIME | TEMPERATURE |
|---------------|---------------|
| 1 06:00-23:00 | Comfort 20 °C |
| 4 23:00-06:00 | Setback 15 °C |

Individual programming of events

The factory-set periods and/or temperatures can be adjusted as necessary.

The following programs can also be selected

Choose between 4- or 6-event scheduler. Up to seven different event program combinations can be used. Choose between method “work-/home-days” or “individual days” programming.

Comfort mode

The room temperature can be temporarily changed for a selected number of hours. The thermostat will then return to the scheduled event program.

Manual mode

The scheduled event program can be cancelled for constant temperature operation.

Holiday mode

Program a planned holiday period and the thermostat will start automatically. The thermostat will automatically set the temperature set point to 5 °C during the entire holiday period programmed.

Boost mode

Activate a boost period of one hour to rapidly increase the temperature. The thermostat will then return to normal operation.

Frost protect mode

Frost protection mode can be activated if no heat is needed. (Ensures no frost damages at low temperatures).

ECO mode

The lowest set point programmed in the schedule will by activating the ECO Mode be used permanently until the ECO Mode is deactivated.

TECHNICAL DATA

| | |
|----------------------|--|
| Supply voltage | 100-240 V AC, 50/60 Hz |
| Standby power | < 0.5 W |
| Output relay SPST | 16 A, resistive load or 1 A inductive load |
| Interrupter | 2-pole, 16 A |
| Floor limit range | +5/+40 °C |
| Clock function | Up to seven different 4- or 6-event program combinations |
| Battery backup | Settings forever 5 years for Clock and Calendar |
| Ambient temperature | 0/+40 °C during operation |
| On/Off differential | 0.4 °C |
| Regulation principle | PWM / PI |
| Housing | IP21 |
| Standard sensor type | NTC (12 KΩ) 3 m. Thermostat compatible with existing common sensors on the market |
| Dimensions (H/W/D) | 84/84/40 mm (21.8 mm depth) |
| Display | 220 x 176 pixel TFT - Color resistive touch |
| EU Registered Design | Yes |

Approvals: CE, VDE, BEAB, NEMKO