

ENGINEERING TOMORROW

Hydronic floor heating control

## Danfoss *lcon*™ Made to match your switch frames

230 volt room thermostats for hydronic floor heating and other applications with actuators.



icon.danfoss.com

## Matches the switch frames Complements the interior

The Danfoss *lcon*<sup>™</sup> room thermostat has been designed to blend in with any interior. This is why we consciously chose to make it look like most common switch frames.

When not in use, the room thermostat display turns off and becomes virtually invisible. When the screen is touched, the display comes to life instantly and displays the current room temperature.



## Build it into a switch frame

To achieve a perfect match between thermostat, light switches and electrical sockets, Danfoss *lcon*<sup>™</sup> can be easily fitted into many of the most popular switch frames.

You can find an overview of compatible switch frames at:

icon.danfoss.com



Berker Q3 frames

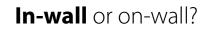


Merten M-plan frames





Gira E2 frames



If the Danfoss *lcon*<sup>™</sup> room thermostat fits into the junction box, we recommend choosing the in-wall version. With a depth of only 11 mm and 80 x 80 mm square, it effortlessly blends in with the interior design scheme.

The on-wall version is the ideal choice if the junction box is not compatible or not present. At just 25 mm in depth and 86 x 86 mm square, the on-wall version is no more obtrusive than a standard light switch.



# Simple or advanced **Matches every preference**

Danfoss *lcon*<sup>™</sup> room thermostats are available in three different versions – each with its own individual set of features ranging from basic to advanced features.

### Learn more at:

icon.danfoss.com



### Danfoss Icon™ programmable

For those who want to set desired temperature, see current temperature and schedule different temperatures during the course of the day. Also enabled for cooling and floor sensor.

#### Main features

- Touchscreen contro
- Icon-based navigation
- Noiseless switching
- Available as in-wall and on-wall
- Can control actuator on radiato
- Valve exercise
- Up to 5x2W NC or NO actuators
- Temperature range limitation

- 230V
- Seven pre-defined schedules
- Adaptive learning
- Input for cooling and central 'away' function
- Optional floor sensor (separate product code)



### Danfoss Icon<sup>™</sup> display

For those who want to set the desired temperature and see current temperature.

### Main features

- Touchscreen control
- Icon-based navigation
- Noiseless switching
- Available as in-wall and on-wall
- Can control actuator on radiator
- Valve exercise
- Temperature rang
  230\/

• Up to 5x2W NC or NO

### Danfoss *Icon*™ dial

For those who simply want to set the desired temperature.

#### Main features

- Available as in-wall and on-wall
- Up to 5x2W NC or NO actuator
- Temperature range limitation
- 230V

## Use scheduling to save energy

The Danfoss *lcon*<sup>™</sup> programmable room thermostat enables you to automatically change the room temperature throughout the day. The adaptive learning feature turns the heating on at precisely the right moment to achieve the desired temperature at the scheduled time. Every degree the temperature is lowered saves 5% of energy use.

Bear in mind that changing the temperature in a room with standard hydronic floor heating may take several hours.

## **Pre-defined** scheduling





Or change the temperature for "Asleep" mode? > Press "Asleep" icon again > Press "Setting" icon

## **Easy installation** Functional design

To make your life easier, Danfoss *lcon*<sup>™</sup> has been designed to save time at all stages of installation and use:

- Easy installation by simply snapping the front module onto the rear module. If necessary, the angle of the frame can be slightly adjusted to compensate for inaccurate junction box installation
- · UV-resistant plastic
- · Glossy surface for easy cleaning
- Settings such as heat emitter type, temperature range limitation and actuator type are performed via the display, making adjustments and troubleshooting easier than having to use jumpers on the back of the product, for example.



6

## Front module 50x50 mm.

Placed inside the wall frame and snapped onto the rear module. Holds the wall frame in place and makes it possible to adjust the angle for perfect aesthetic result Wall frame 80x80 mm.

Can be exchanged with any compatible switch frame. Rear module

Connected with wires and mounted inside a junction box.

## **On-wall**



## **Everything you need** from a single supplier

## Full range of hydronic floor heating components

The Danfoss product range includes every single component you need to build your floor heating system.

On top of that, Danfoss offers a comprehensive range of control components for use in both residential and commercial buildings.

Contact us today and let us know what you need for your project. One call is all it takes.



Room controls







Pipes



Floor heating panels

Actuators

Mixing shunts





# 230V Danfoss *lcon*<sup>™</sup> room thermostats

| Danfoss <i>lcon</i> ™ room thermostats |                   | Code     | In-wall | On-wall | Temperature<br>limitation | Fits into<br>switch frames | Noiseless<br>switching | Floor sensor<br>enabled | Pre-defined scheduling | Adaptive<br>learning | Cooling input <sup>1</sup> | 'Away' input <sup>1</sup> |
|--|-------------------|----------|---------|---------|---------------------------|----------------------------|------------------------|-------------------------|------------------------|----------------------|----------------------------|---------------------------|
|  | 230V Dial         | 088U1000 | ٠       |         | ٠                         | •                          |                        |                         |                        |                      |                            |                           |
|  | 230V Display      | 088U1010 | ٠       |         | ٠                         | •                          | ٠                      |                         |                        |                      |                            |                           |
|  | 230V Programmable | 088U1020 | ٠       |         | •                         | •                          | ٠                      | •                       | •                      | ٠                    | •                          | •                         |
|  | 230V Dial         | 088U1005 |         | ٠       | ٠                         |                            |                        |                         |                        |                      |                            |                           |
|  | 230V Display      | 088U1015 |         | ٠       | ٠                         |                            | ٠                      |                         |                        |                      |                            |                           |
|  | 230V Programmable | 088U1025 |         | ٠       | ٠                         |                            | ٠                      | ٠                       | ٠                      | ٠                    | ٠                          | •                         |

<sup>1</sup> The thermostat can be set to cooling mode or 'away' mode by switching a phase onto the respective input terminal. The switching can be handled automatically by the cooling source (in case of cooling function) or an external timer module (in case of 'away' function). Alternatively they can be handled manually via a simple switch. The functions are active for as long as a phase is present on the input terminal. Note: The phase used, must be the same phase that supplies the thermostat.

| Accessories Code               |          | Description   |
|--------------------------------|----------|---|
| 230V thermal actuator 088H3112 |          | RA connection, NC (Normally Closed)   |
| 230V thermal actuator          | 088H3113 | RA connection, NO (Normally Open)   |
| 230V thermal actuator          | 088H3142 | M30 connection, NC (Normally Closed)  |
| 230V thermal actuator          | 088H3143 | M30 connection, NO (Normally Open)  |
| 230V connection box            | 088H0016 | With pump and boiler relay <sup>1</sup>                                       |
| Floor sensor 088U1110          |          | Compatible with Danfoss <i>Icon</i> <sup>™</sup> programmable room thermostat |

<sup>1</sup> Note: if an NO (Normally Open) actuator is connected, the pump and boiler relays cannot be used as their function cannot be inverted.

#### Learn more at:

icon.danfoss.com

#### **Danfoss A/S** · Heating Segment · Ulvehavevej 61 · 7100 Vejle · Denmark Tel.: +45 7488 8500 · Email: heating@danfoss.com · www.heating.danfoss.com

Danfoss can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alterations can be made without subsequential changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.