



## Danfoss

### Danfoss ECO 2 - programmable heating valve - Bluetooth

SKU: DAN\_ECO2



#### Quickstart

This is a **Z-Wave Device for Europe**. To run this device please connect it to your mains power supply.

#### What is Z-Wave?

Z-Wave is the international wireless protocol for communication in the Smart Home. This device is suited for use in the region mentioned in the Quickstart section. (For more information about frequency regulations please refer to [the frequency coverage overview at Sigma Designs Website](#)).

Z-Wave ensures a reliable communication by reconfirming every message (**two-way communication**) and every mains powered node can act as a repeater for other nodes (**meshed network**) in case the receiver is not in direct wireless range of the transmitter.

This device and every other certified Z-Wave device can be **used together with any other certified Z-Wave device regardless of brand and origin** as long as both are suited for the same frequency range.

If a device supports **secure communication** it will communicate with other devices secure as long as this device provides the same or a higher level of security. Otherwise it will automatically turn into a lower level of security to maintain backward compatibility.

For more information about Z-Wave technology, devices, white papers etc. please refer to [www.z-wave.info](#).



#### Product Description

The Danfoss ECO 2.0 is a stand-alone electrical radiator valve for the use in the living space. The Danfoss 2.0 is battery powered, compact and is controlled by a simple handwheel and a single button. The Danfoss ECO 2.0 will be programmed over the Smartphone App and the bluetooth connection.

The ECO 2.0 can be easily installed within 30 seconds. Adapters for all Danfoss thermostat valve and most of the other valve from different vendors are included.

#### Features:

- Easy programming over Bluetooth with the smartphone or tablet
- Saves energy
- Easy installation
- Easy to use
- Manual use is still available
- "Window open" function
- Precise PID temperature control
- Adaptive learning
- Day and night temperature reduction, week schedule, holiday and pause function
- Good readable LCD screen
- 180 degrees rotatable display
- Min./max. temperature control
- Child lock
- Frost protection

## Prepare for Installation / Reset

Please read the user manual before installing the product.

In order to include (add) a Z-Wave device to a network it **must be in factory default state**. Please make sure to reset the device into factory default. You can do this by performing an Exclusion operation as described below in the manual. Every Z-Wave controller is able to perform this operation however it is recommended to use the primary controller of the previous network to make sure the very device is excluded properly from this network.

### Safety Warning for Mains Powered Devices

ATTENTION: only authorized technicians under consideration of the country-specific installation guidelines/norms may do works with mains power. Prior to the assembly of the product, the voltage network has to be switched off and ensured against re-switching.

## Inclusion/Exclusion

On factory default the device does not belong to any Z-Wave network. The device needs to be **added to an existing wireless network** to communicate with the devices of this network. This process is called **Inclusion**.

Devices can also be removed from a network. This process is called **Exclusion**. Both processes are initiated by the primary controller of the Z-Wave network. This controller is turned into exclusion respective inclusion mode. Inclusion and Exclusion is then performed doing a special manual action right on the device.

## Quick trouble shooting

Here are a few hints for network installation if things dont work as expected.

1. Make sure a device is in factory reset state before including. In doubt exclude before include.
2. If inclusion still fails, check if both devices use the same frequency.
3. Remove all dead devices from associations. Otherwise you will see severe delays.
4. Never use sleeping battery devices without a central controller.
5. Dont poll FLIRS devices.
6. Make sure to have enough mains powered device to benefit from the meshing

## Technical Data

Dimensions	0.0530000x0.0530000x0.0760000 mm
Weight	110 gr
EAN	5702425145216

## Explanation of Z-Wave specific terms

- **Controller** — is a Z-Wave device with capabilities to manage the network. Controllers are typically Gateways, Remote Controls or battery operated wall controllers.
- **Slave** — is a Z-Wave device without capabilities to manage the network. Slaves can be sensors, actuators and even remote controls.
- **Primary Controller** — is the central organizer of the network. It must be a controller. There can be only one primary controller in a Z-Wave network.
- **Inclusion** — is the process of adding new Z-Wave devices into a network.
- **Exclusion** — is the process of removing Z-Wave devices from the network.
- **Association** — is a control relationship between a controlling device and a controlled device.
- **Wakeup Notification** — is a special wireless message issued by a Z-Wave device to announces that is able to communicate.
- **Node Information Frame** — is a special wireless message issued by a Z-Wave device to announce its capabilities and functions.