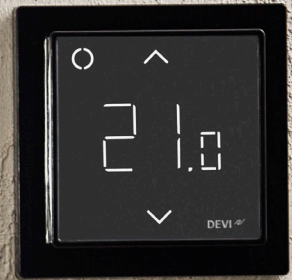


# Guide

## How to bring your electric heating system to a new level of energy efficiency

Tips for updating the electric heating system of any type



### Did you know that...

**EcoDesign** the energy efficiency of the equipment

is defined by a minimum requirements such as scheduling. Smart thermostats in DEVI product portfolio - DEVIreg™ Opti, DEVIreg™ Touch and DEVIreg™ Smart can provide a great solution for energy saving and the requirements of the Directive.

**DEVI**®  
by Danfoss

## Save on the heating costs: replace your old room thermostat with a new one

**Upgrading an existing heating system is easy!** Energy renovation doesn't have to be complicated and time-consuming process. When you want to save on your energy bill, we recommend looking towards the room thermostats in your home. By replacing old electric heating thermostats with modern and smart DEVIreg™ thermostats - you can get a possibility to enjoy some useful features - timer functions, 'open window' detection function and application control. There are models of DEVIreg™ thermostats that fit perfectly with the more common cover plates and NTC floor sensors, so they are **easy to integrate into existing systems**.



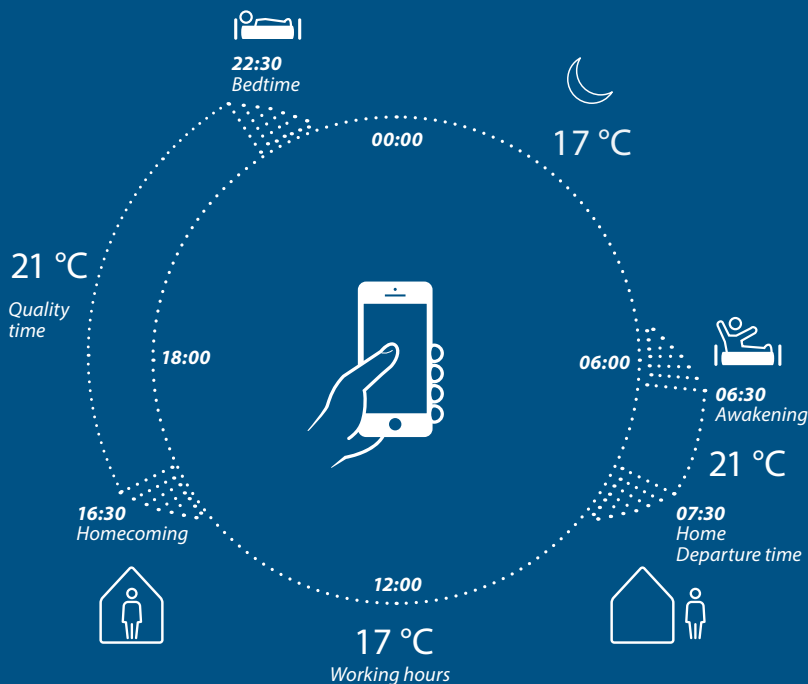
## The timer function is the key to savings

**Schedule heating according to your daily rhythm of life.**

The timing function and remote control allow you to take the heating into your own hands. You will be able to schedule the heating room by room according to your own rhythm of life – maintain the comfort temperature only when it is needed and provide a thermostat automatically drop the temperature to energy saving mode when there is no need for full heating. You can lower the temperature e.g. when there is no one in the apartment or premises.

The temperature in the bedroom can be lowered for the night time - and a little cooler sleep is also of better quality.

**Easily control the temperatures in your apartment and summer cottage from your mobile phone.** The heating is easily controlled remotely and the timer function allows you to achieve significant savings.



## Features energy savings

**Timed heating cycles.** The easiest way to save energy at home is simply to put on heating energy saving mode, i.e. drop temperatures when comfort heating is not required. The time you are spending away from home or sleeping, provides the perfect opportunity to save on heating costs – without having to lift a finger.

Heating thermostats have a number of features, to improve energy efficiency for example, using timed heating cycles on a **room-by-room basis**.

**Wi-Fi remote control.** Heating can also be controlled via Wi-Fi, which allows heating systems remote control on your phone or tablet with the help of a mobile application.

## Underfloor heating or electric radiators?

The **DEVIreg™ Smart** thermostat can be used to control electric radiators, either according to temperature or ON/OFF as a switch. By using the thermostat's own room sensor, the radiator thermostat can be bypassed and take care of temperature monitoring and control using a thermostat. As an ON/OFF switch, the electric radiator is controlled on and off and when the radiator is on, it uses the radiator's own thermostat.

**DEVIreg™ Smart** thermostat can remotely control the radiators as needed, whether they are at home or in a holiday home. Thermostat is equipped with a versatile timer providing additional flexibility and possibilities.

**DEVIreg™ Smart is multifunctional:** thermostat is well suited for controlling room heating and is used as a controlled room sensor. The thermostat makes it easy to remotely control the heating as needed, whether it is at your home or from your holiday home.

DEVIreg™ Smart can be used for many purposes: it is well suited for various heating devices and others for the control of electrical equipment. It can be used to control, for example, a water heater, an air source heat pump, defrosting cables for outdoor areas, a melting cabinet for drinking water pipes, etc.



## Programmable DEVIreg™ thermostats for every need

Which of the **DEVIreg™** thermostats is best suited for your home and applications?

All three thermostats in our range are combination thermostats. Thermostats can be used to accurately - room by room - adjust the temperature of the floor surface alone or the room alone, or a combination of both.

With the flexible timer of **DEVIreg™ Smart** and **DEVIreg™ Touch**, you can focus the heating on exactly the desired time. In addition, through the **DEVIreg™ Smart** mobile application, you always have access to real-time information about the thermostat. It is easy to allocate heating to the desired period of time.

|  |   |
|--|---|
|  | <p><b>DEVIreg™ Smart</b> is a smart timer thermostat in accordance with the Ecodesign Directive, which is used for control on an application basis. The thermostat connects to a Wi-Fi network and the mobile application turns a smart device into a remote control that can be used to easily control your home heating system – from anywhere in the world. The 2-piece design allows it to fit into the most common frames and sensors on the market. DEVIreg™ Smart settings are configurable with a quick guided setup application. Very flexible timing options. It is possible to convert the DEVIreg™ Smart with the DEVIsmart™ app to an ON/OFF switch. It can be used to control devices on/off or, alternatively, to use timer control. You can easily remotely control yard lights, individual electrical appliances, air source heat pump, etc. Conversion works both ways. You can change the DEVIreg™ Switch back if necessary to thermostat. One device - two modes of application. Read more on page 4.</p> |
|  | <p><b>DEVIreg™ Touch</b> is an intuitive timer thermostat in accordance with the Ecodesign directive that is operated with a touch screen. It is compatible with the most common frames and floor heating sensors on the market. This way, you can integrate it into existing heating systems - cost-effectively and easily. A fast and flexible solution for almost any heating control. Very flexible scheduling options. Read more on page 4.</p>  |
|  | <p><b>DEVIreg™ Opti</b> is an electronic timer thermostat in accordance with the Ecodesign directive, which is controlled by buttons from the thermostat. DEVIreg™ Opti comes preprogrammed from the factory. You only have to set time and weekday to get started. If you want to change the preprogrammed settings, it can easily be done in the installer menu (by an electrical installer). The thermostat is equipped with a timer for additional economy. In addition, it includes ventilation function and low power consumption in standby mode. It ensures the achievement of thermal comfort in an economical and energy-efficient manner. Read more on page 4.</p>   |

## Which DEVIreg™ electronic thermostat matches your needs?

|   |   |   |  |  |
|---|---|---|--|--|
| Advanced set-up wizard  |   |   |  | ✓                                      |
| Remote control via Wi-Fi  |   |   |  | ✓                                      |
| Android and iOS app available                                     |   |   |  | ✓                                      |
| Living zones control  |   |   |  | ✓                                      |
| Several masters for one system                                    |   |   |  | ✓                                      |
| Multi-location control  |   |   |  | ✓                                      |
| Automatic online software updates                                 |   |   |  | ✓                                      |
| Advanced scheduling   |   |   |  | ✓                                      |
| Set-up copying device to device                                   |   |   |  | ✓                                      |
| Dimmer function   |   |   |  | ✓                                      |
| Hex code–system   |   | ✓ |  | ✓                                      |
| Touchscreen   |   | ✓ |  | ✓                                      |
| Energy consumption monitoring                                     |   | ✓ |  | ✓                                      |
| Intuitive programming   |   | ✓ |  | ✓                                      |
| Multi-sensor compatibility  |   | ✓ |  | ✓                                      |
| Forecast end fade out (adaptive end)                              |   | ✓ |  | ✓                                      |
| Forecast start function (adaptive start)                          |   | ✓ |  | ✓                                      |
| Multi-frame compatible  |   | ✓ |  | ✓                                      |
| PWM regulation  | ✓   |   | ✓                                      | ✓                                      |
| Low standby consumption   | ✓   |   | ✓                                      | ✓                                      |
| ECO directive compliant   | ✓   |   | ✓                                      | ✓                                      |
| Display set point temperature                                     | ✓   |   | ✓                                      | ✓                                      |
| Display actual temperature  | ✓   |   | ✓                                      | ✓                                      |
| Max and minimum floor temperature                                 | ✓   |   | ✓                                      | ✓                                      |
| Childproof (safety lock)  | ✓   |   | ✓                                      | ✓                                      |
| Battery back-up   | ✓   |   | ✓                                      | ✓                                      |
| Open window detection   | ✓   |   | ✓                                      | ✓                                      |
| Pre-programmed  | ✓   |   | ✓                                      | ✓                                      |
| Digital timer   | ✓   |   | ✓                                      | ✓                                      |
| Temperature range 5-35°C  | ✓   |   | ✓                                      | ✓                                      |
| Floor temperature range 5-35°C (45°C after break out)             | ✓   |   | ✓                                      | ✓                                      |
| Display   | ✓   |   | ✓                                      | ✓                                      |
| 3in1: Room sensor, floor sensor or room and floor sensor combined | ✓   |   | ✓                                      | ✓                                      |
| Programmable  | Individual programming<br>2 periods/day (5+2 or 7 days) |   | Full flexible<br>2 periods programming | Full flexible<br>5 periods programming |

### DEVIreg™ Opti

2  
YEAR  
WARRANTY



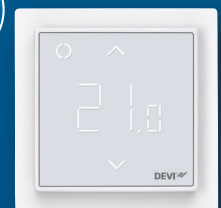
### DEVIreg™ Touch

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WARRANTY



### DEVIreg™ Smart

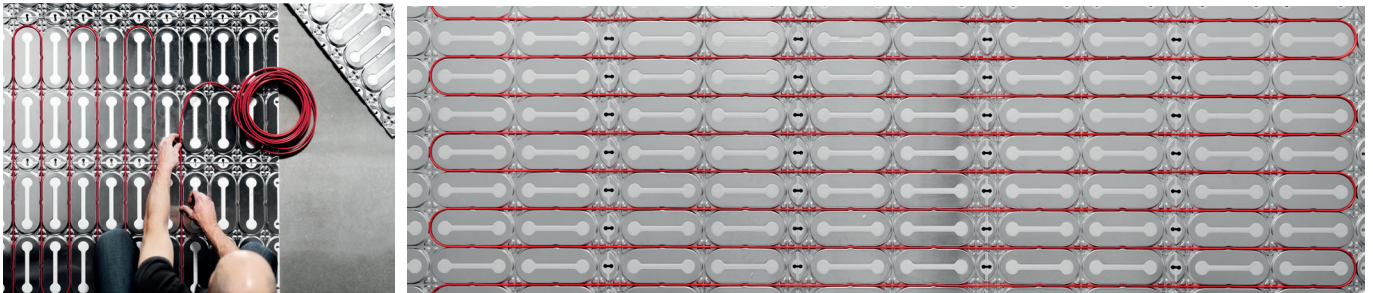
5  
YEAR  
WARRANTY



## Fast-reacting underfloor heating solution - without draining!

**Is there a room or space in your home where the current heating solution works inefficiently and consumes too much precious energy?** We have a solution for you: DEVicell™ Dry installation and insulation panel intended for dry rooms for heating parquet and laminate floors. This makes it possible to quickly and easily install underfloor heating directly under parquet, laminate or wood coating without screeds.

**DEVicell™ Dry panel** (50 cm x 100 cm and thickness only 13 mm) consists of a 12 mm thick heat-insulating EPS insulation board and overhead, heat-reflecting 1 mm thick aluminum sheet. Thanks to its structure, the heat is evenly distributed in the floor, keeping the air in the room pleasant. Heat is not wasted, since the insulation prevents the underside heat losses efficiently and at the same time aluminum cover spreads heat evenly. This is how raising the temperature to the desired level is carried out quickly. DEVicell™ panels are suitable for DEViflex™ 6T (6 W/m) and 10T (10 W/m) heating cables, resulting in a floor square power of 60 W/m<sup>2</sup> or 100 W/m<sup>2</sup>. Not suitable for installation under screed or another wet installation.



## Heating cables and mats for renovation

|  |   |
|--|---|
|  | <p><b>DEViflex™ 10T (10 W/m) heating cable</b></p> <ul style="list-style-type: none"> <li>• Underfloor/renovation underfloor heating (for concrete casting/screed, with a thickness of less than 5 cm, rossi floor technologies and sheet-built floors)</li> <li>• Diameter 6.9 mm</li> <li>• The installation interval can vary from 17 to 6 cm, resulting in a square power of 60-150 W</li> </ul> <p><b>Warranty 20 years</b></p>  |
|  | <p><b>DEViflex™ 6T (6 W/m) heating cable</b></p> <ul style="list-style-type: none"> <li>• Underfloor/renovation underfloor heating</li> <li>• Diameter 6.9 mm</li> <li>• Designed for low- and passive-energy houses and comfort heating</li> </ul> <p><b>Warranty 20 years</b></p>   |
|  | <p><b>DEVicomfort™ 10 W /m heating cable</b></p> <ul style="list-style-type: none"> <li>• Renovation underfloor heating for concrete and lightweight floors. For concrete casting/screed with a thickness of &lt; 5 cm</li> <li>• Installed on a solid base, not attached to reinforcement</li> <li>• Structural height only 4 mm</li> </ul> <p><b>Warranty 20 years</b></p>  |
|  | <p><b>DEVimat™ 100 W / m<sup>2</sup> heating cable mat</b></p> <ul style="list-style-type: none"> <li>• Renovation underfloor heating (thin-textured concrete and sheet flooring) tiled, plastic carpet, cork, laminate, parquet or wood coating</li> <li>• For concrete casting/screed with a thickness of &lt; 5 cm. Installed on a solid base, must not be attached to reinforcement</li> <li>• Structure height 3 mm, width 0.5 m, different lengths. Adhesive fiberglass mesh</li> </ul> <p><b>Warranty 20 years</b></p> |



## Danfoss A/S

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