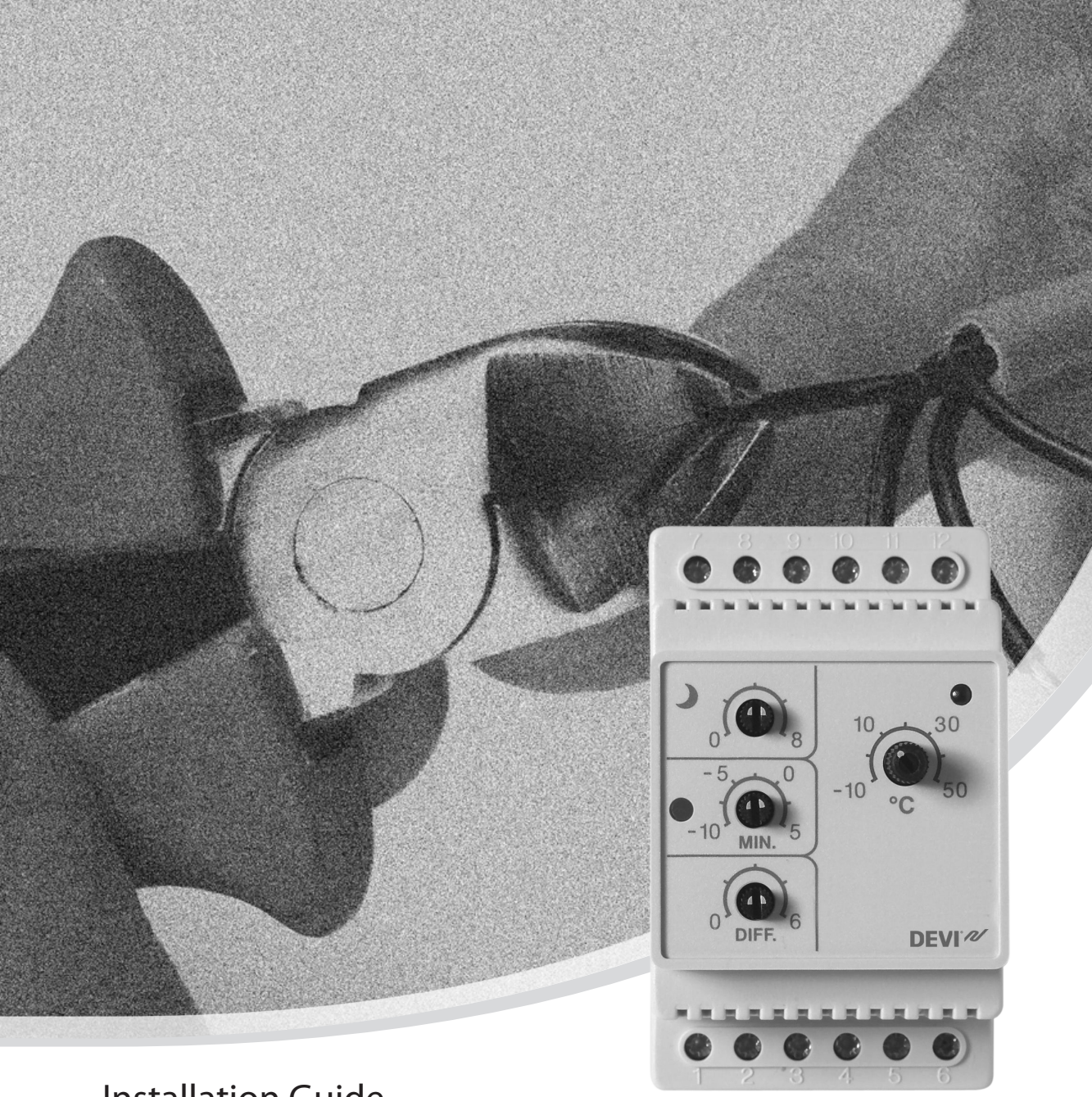


Installation Guide

DEVIreg™ 316

Electronic Thermostat

www.DEVI.com

DEVI®

The English language is used for the original instructions.
Other languages are a translation of the original instructions.
(Directive 2006/42/EC)

Table of Contents

1 Introduction

DEVIreg™ 316 is an electronic thermostat to be installed in electric cabinets with DIN rail attachment. The thermostat must be installed via an all-pole disconnection switch. DEVIreg™ 316 applies to the control of room temperature, floor temperature, ventilation, cooling or to the control of snow melting in gutters and similar installations.

For measuring purposes either a wire sensor or an external air sensor is used.

The thermostat has a button to adjust the temperature setting with a scale from -10°C to +50°C . An LED indicator shows standby periods (green light) and heating periods (red light).

More information on this product can also be found at: devireg.devi.com

1.1 Technical Specifications

Operation voltage	220-240V~, 50Hz
Standby power consumption	Max 0.25W
Relay: Resistive load Inductive load	 Max 16A / 3680W @ 230V cos φ= 0.3 max1A
Sensing units	NTC 15kOhm at 25°C
Sensing values: 0°C 25°C 50°C	 42kOhm 15kOhm 6kOhm
Hysteresis	0 to 6°C
Ambient temperature	10°C to +45°C
Lowering in economy periods	0 to 8°C
Temperature range	-10°C to +50°C

Minimum temperature range	-10°C to +5°C
Cable specification max	1x4mm^2 or 2x2,5mm^2
Ball pressure temperature	75°C
Pollution degree	2 (domestic use)
Type	1B
Storage temperature	-20°C to +65°C
IP class	30
Protection class	Class II - ⧈
Dimensions	86 x 36 x 58mm
Weight	180g

The product complies with the EN/IEC Standard "Automatic electrical controls for household and similar use":

- EN/IEC 60730-1 (general)
- EN/IEC 60730-2-9 (thermostat)

1.2 Safety Instructions

Make sure the mains supply to the thermostat is turned off before installation.

IMPORTANT: When the thermostat is used to control a floor heating element in connection with a wooden floor or similar material, always use a floor sensor and never set the maximum floor temperature to more than 35°C.

Please also note the following:

- The installation of the thermostat must be done by an authorized and qualified installer according to local regulations.
- The thermostat must be connected to a power supply via an all-pole disconnection switch.
- Always connect the thermostat to continuous power supply.
- Do not expose the thermostat to moisture, water, dust, and excessive heat.

2 Mounting Instructions

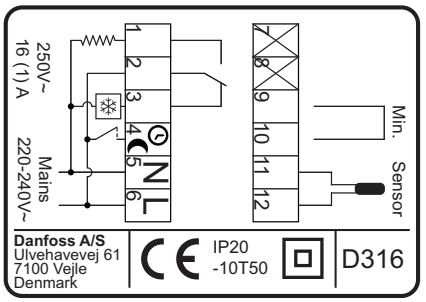
Please observe the following placement guidelines:

- Install the thermostat in an electric cabinet with DIN rail attachment or a separate DIN attachment according to local regulation on IP classes.
- Do not place the thermostat in a way that it will be exposed to direct sunlight.

Follow the steps below to mount the thermostat:

1. Click the thermostat on to the DIN rail attachment.

2. Connect the thermostat according to the connection diagram.



The screen of the heating cable must be connected to the earth conductor of the power supply cable by using a separate connector.

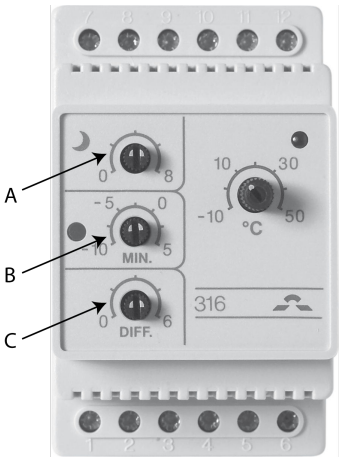
Note: When you use the wire sensor for floor heating, always install the sensor in a conduit.

3. Turn on the power supply.

Protective separation

The thermostat is designed so that the sensor circuit is galvanically separated from the high voltage part which means that the sensor part is regarded as a low voltage part.

3 Settings



A Night set-back

B Minimum temperature limiter

C Hysteresis

3.1 Hysteresis

When the thermostat is used to apply with either heating systems or refrigerating systems, and the requested temperature is between -10°C to +50°C, then it is recommendable also to adjust the hysteresis **C** according to the requested regulating range.

As an example if the temperature is set at 18°C and the hysteresis at 3°C the thermostat will switch on at 18°C and off at 21°C.

For controlling of room temperature the Hysteresis is recommended to the set point of 1°C.

3.2 Minimum Temperature Limiter

When the thermostat is used in connection with snow and ice melting systems, it is recommendable also to use and adjust the minimum temperature limiter (**B**) which ensures both an upper and lower temperature range in between which the thermostat allows the system to heat.

The requested maximum temperature range has to be between -10°C to +50°C and the requested minimum temperature range has to be between -10°C to +5°C.

An link between terminal 9+10 must be connected to activate the use of the minimum temperature feature when the thermostat controls snow and ice melting in gutters, valley gutters and down pipes, where the waste of unnecessary energy must be avoided. In particular by extremely cold weather where flowing water or moisture does not occur.

When the temperature drops below the minimum temperature set value, the thermostat stops heating and the LED indicator turns yellow.

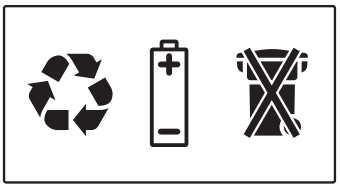
When the temperature exceeds the maximum temperature setting, the thermostat stops heating and both the indicator for minimum and maximum temperature disappears.

3.3 Temperature Set-back

By connecting an external timer to terminals 4 and 6, the thermostat can be set to reduce the temperature by 0°C to 8°C (**A**).

4 Warranty

5 Disposal Instruction



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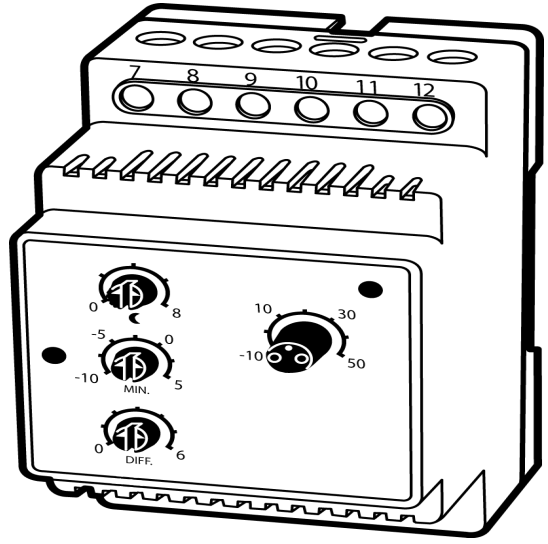
Produced by Danfoss © 06/2012

DEVIreg 316 -10<>+50°

140F1075

220-240V~
50-60Hz~
-10 to +50°C
ECO Set back 0-8°C
16A/3680W@230V~



Product Documentation

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Designed in Denmark for Danfoss A/S

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