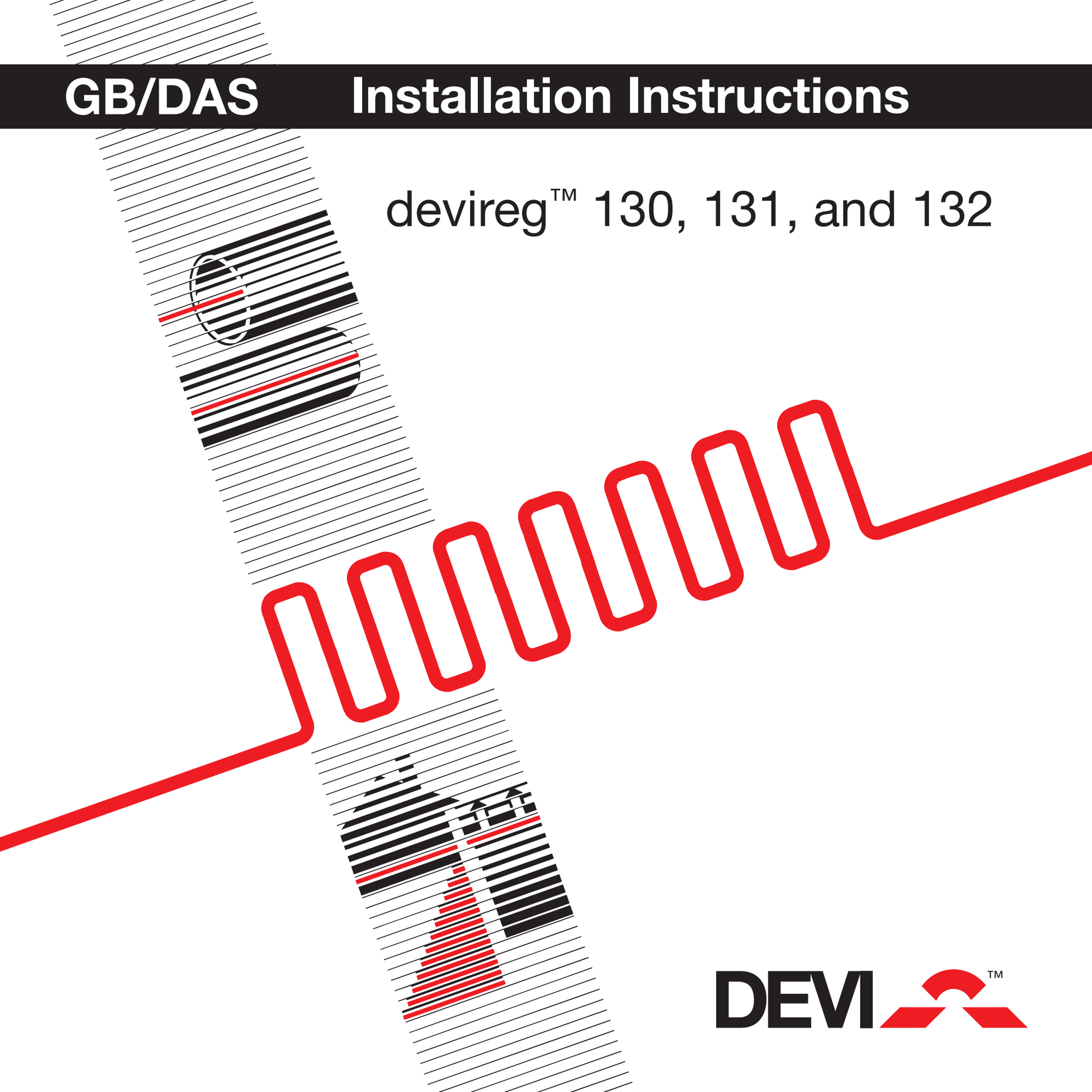
GB/DAS Installation Instructions

devireg™ 130, 131, and 132



DEVI™

Contents:

NB! The installation must only be carried out by an authorised electrician. A disconnection must be incorporated in the fixed wiring to ensure all-pole disconnection from the supply mains.

1. Applications and functions

The devireg™ 130-series is a series of electronic thermostats used for control of indoor heating.

The devireg™ 130 is used for control of floor heating installations. The thermostat is equipped with a floor sensor for control of the desired floor temperature.
The devireg™ 131 is used for control of room heating installations. The thermostat is equipped with a built-in sensor for control of the desired room temperature.
The devireg™ 132 is used for control of both floor heating installations and room heating installations.
The thermostat is equipped with a built-in sensor for control of the desired room temperature. In addition, the thermostat is equipped with a floor sensor for control of the desired floor temperature.

Furthermore with the temperature dial and front cover removed, you can set the maximum floor temperature, between 20° and 50°C, by adjusting the sunken temperature dial, located in the top right hand corner of the thermostat. This is an important feature when having wooden floors.

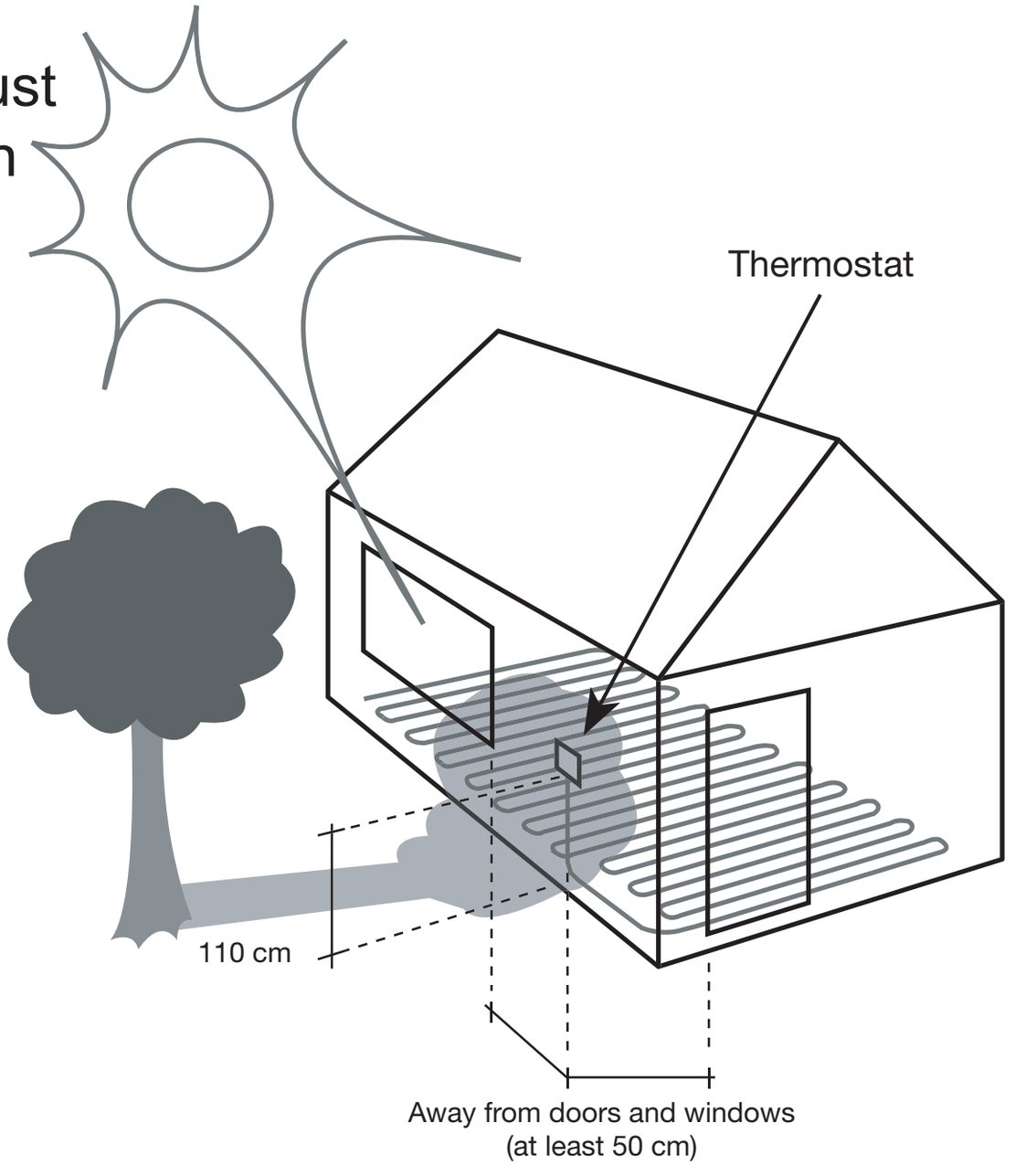
2. Installation instructions

2.a Installation of sensor for devireg™ 130, and 132.

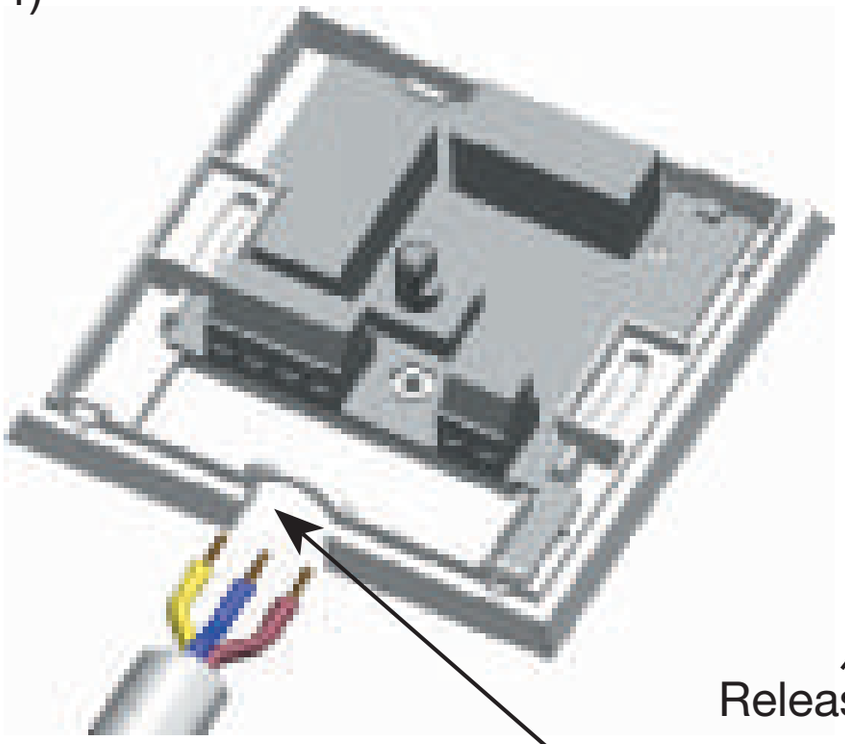
The floor sensor should be mounted in a 16 mm installation pipe which is sealed at the end to prevent penetration of concrete into the pipe. Minimum bending radius for the pipe is 50 mm.
The sensor cable must be placed in between two strings of the heating cable.

2.b Placement of devireg™ 130, 131, and 132.

To avoid cracks in the concrete floor you must ensure that the floor is completely hardened before the heat is switched on.

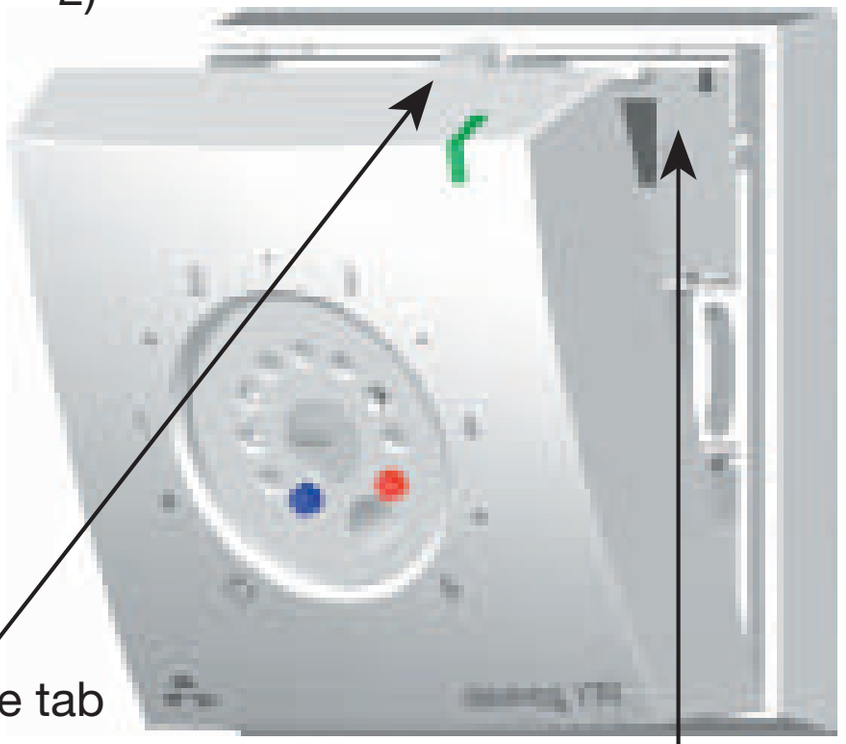


1)



Cut

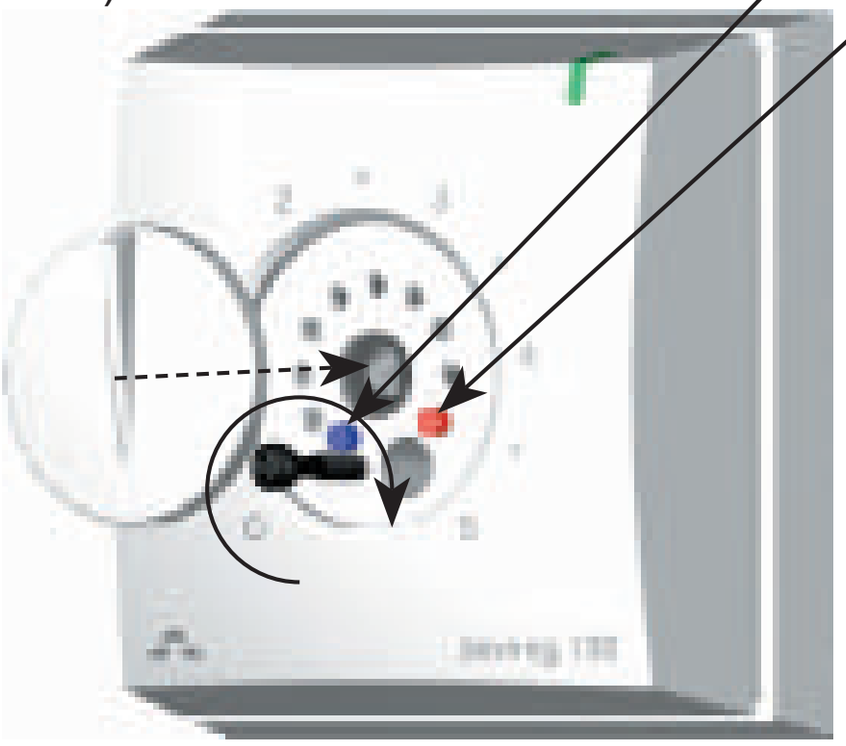
2)



Release tab

d132
temperature
limiter

3)

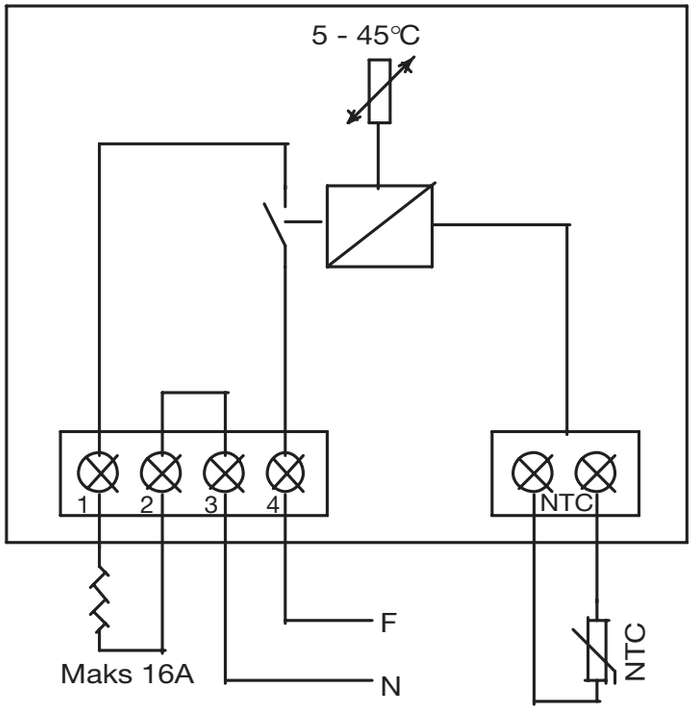


Min.

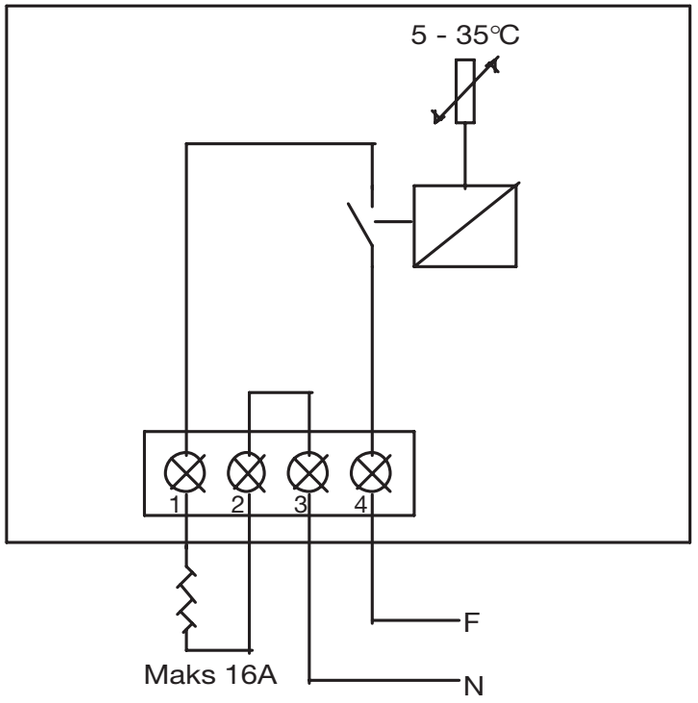
Max.

2.c Connection diagrams for devireg™ 130, 131, and 132.

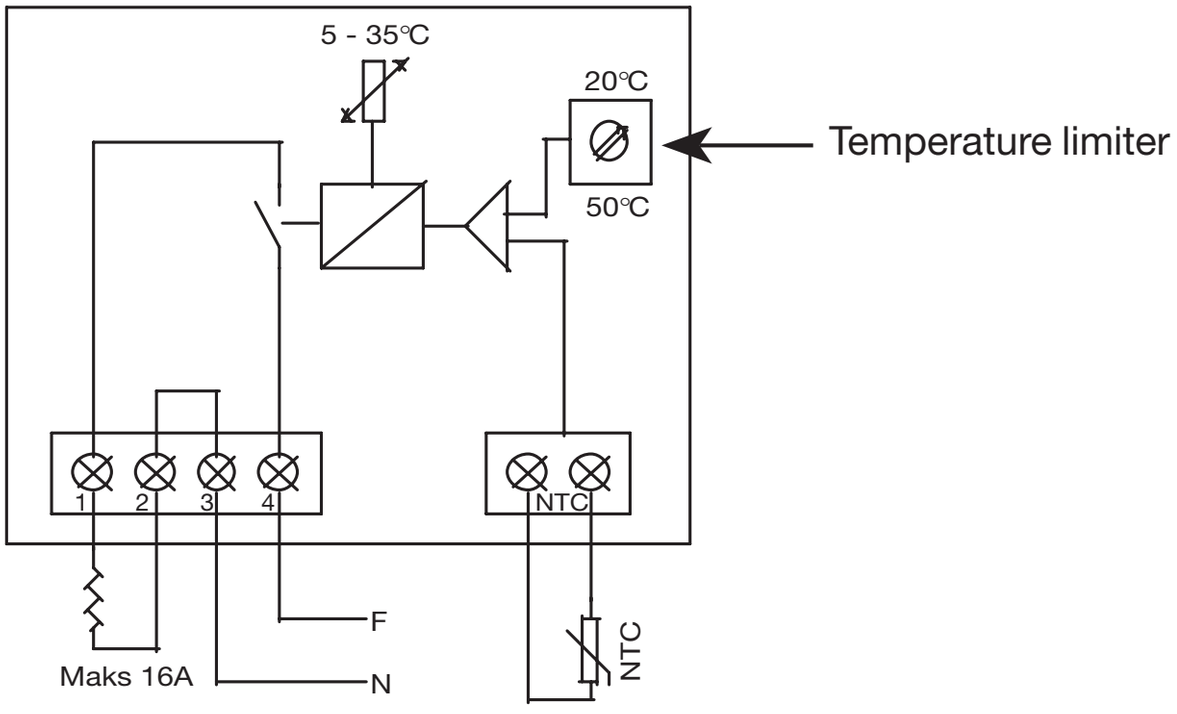
devireg 130



devireg 131



devireg 132



2.d Trouble-shooting.

Control of functioning:
If the heat is not turned on by activating the thermostat, check the residual current device (RCD) and safety devices before contacting an authorized electrician.

Fault: No heat

General:
First of all, make sure that all cables, connected to the thermostat, are properly installed – Making sure that each wire connected to the thermostat, creates a solid contact to the screw terminal located on the thermostat.

Mains voltage: (terminal 3 & 4)
Measure the live supply voltage at terminal 3 & 4. The reading should be within specified range, according to the technical specifications.
If not, check the main fuse.

Thermostat output: (terminal 1 & 2)

Measure the voltage at terminal 1 & 2, (activated thermostat, red light). The reading should be the same as previously measured at terminal 3 & 4.

If the reading is ok, continue to the next step, if not – replace the thermostat.

Heating cable: (terminal 1 & 2)

Disconnect the heating cable from terminal 1 & 2 on the thermostat.

Measure the resistance in the heating cable with an ohm meter, it is now possible to calculate the installed wattage, using the formula below:

$$P = \frac{U^2}{R} = \frac{230^2}{R} = \text{W (at 230 V~)}$$

External sensor input: NTC – only for devireg 130 and devireg 132

Disconnect the external NTC sensor at the terminal NTC, on the thermostat.

Connect an ohm meter to the NTC sensor, measuring the ohm value.

The measured value should be within the specified range according to the technical specifications.
If not, replace the NTC sensor.

Fault: Constant heat

Floor sensor interrupt

If disconnection of the external sensor (NTC) occurs, the thermostat will be constant on (activated thermostat – red light).
Disconnect the external NTC sensor at the terminal NTC, on the thermostat.
Connect an ohm meter to the NTC sensor, measuring the ohm value.
The measured value should be within specified range according to the technical specifications.
If not, replace the NTC sensor.

Relay constantly on

Measure the voltage at terminal 1 & 2, (non-activated thermostat, no light or green light). There should be no voltage at terminal 1 & 2. If voltage is measured replace the thermostat.

3. Technical specifications:

Technical data	
Operation voltage:	230 VAC +10% / -20%, 50 Hz
Power consumption:	Max. 5W
Relays: - Resistive load: - Inductive load:	 250V ~ 16A 1A (power factor 0.3)
Sensing unit:	NTC 15 kOhm at 25° C
Sensing values: - 0°C: - 20°C: - 50°C:	 42 kOhm 18 kOhm 6 kOhm
Hysteresis:	~ 0,2° C
Temperature range: - 130: - 131: - 132:	 (0) 5-45° C (0) 5-35° C (0) 5-35° C, for temperature limiter: 20-50° C
Ambient temperature:	-10º to +50°C
Frost protection:	5ºC
LED indicator: - No light: - Red light: - Green light	 The system is off The temperature set point is not reached. The temperature set point is reached.
IP class:	30
Dimensions:	82 mm x 82 mm x 36 mm

The DEVI™ Warranty:

You have purchased a DEVI heating system which we are sure will serve to improve the comfort and economy of your home.

DEVI provides a complete heating solution with deviflex™ heating cables or devimat™ heating mats, devireg™ thermostats and devifast™ fixing strips. Should you, against all expectations, experience a problem with your DEVI heating system, you will find that DEVI, whose products are manufactured in Denmark and sold throughout the European Union, is subject to the standard regulations pertaining to product liability as specified in EU directive 85/374/CEE as well as all applicable legislation in the individual countries on the following conditions:

DEVI offers a 10-year guarantee on all deviflex™ heating cables and devimat™ heating mats, and a 2-year guarantee against material defects and production defects in connection with any other DEVI products.

The guarantee shall be valid only if the GUARANTEE CERTIFICATE is completed correctly and in accordance with the instructions, and provided the fault is inspected by or submitted to DEVI or an authorised DEVI dealer.

Please note that the GUARANTEE CERTIFICATE must be completed in english or local language.

DEVI shall undertake any repair free of charge or supply the customer with a new unit. Repairs shall be carried out at no further cost to the customer. In the case of faulty devireg™ thermostats, DEVI reserves the right to repair the unit free of charge and without any unreasonable delays for the customer.

The DEVI Guarantee shall not cover installations that have been carried out by non-authorised electricians, faults which arise as a result of misuse by other suppliers, damage caused by third parties, incorrect installations or consequential damage. All work will be invoiced in full if DEVI is required to inspect or repair faults that have arisen as a result of any of the above. The DEVI Guarantee shall not extend to equipment which has not been paid in full.

DEVI will, at all times, provide a rapid, effective and honest response to all queries and reasonable demands from our customers.

The above guarantee covers product liability only, while purchases are subject to national legislation.

Warranty Certificate

The DEVI™ Warranty is granted to:

Name:

Address:

Postal code:

Phone:

Please Observe!

In order to obtain the DEVI™ Warranty, the following must be carefully filled in. See other conditions on the overleaf.

Electrical Installation by:

Installation date:

Type of thermostat:

Production code:

Suppliers Stamp:

DEVI A/S
DK · 7100 Vejle
Phone +45 76 42 47 00
Fax +45 76 42 47 03

08095775 · 01.01