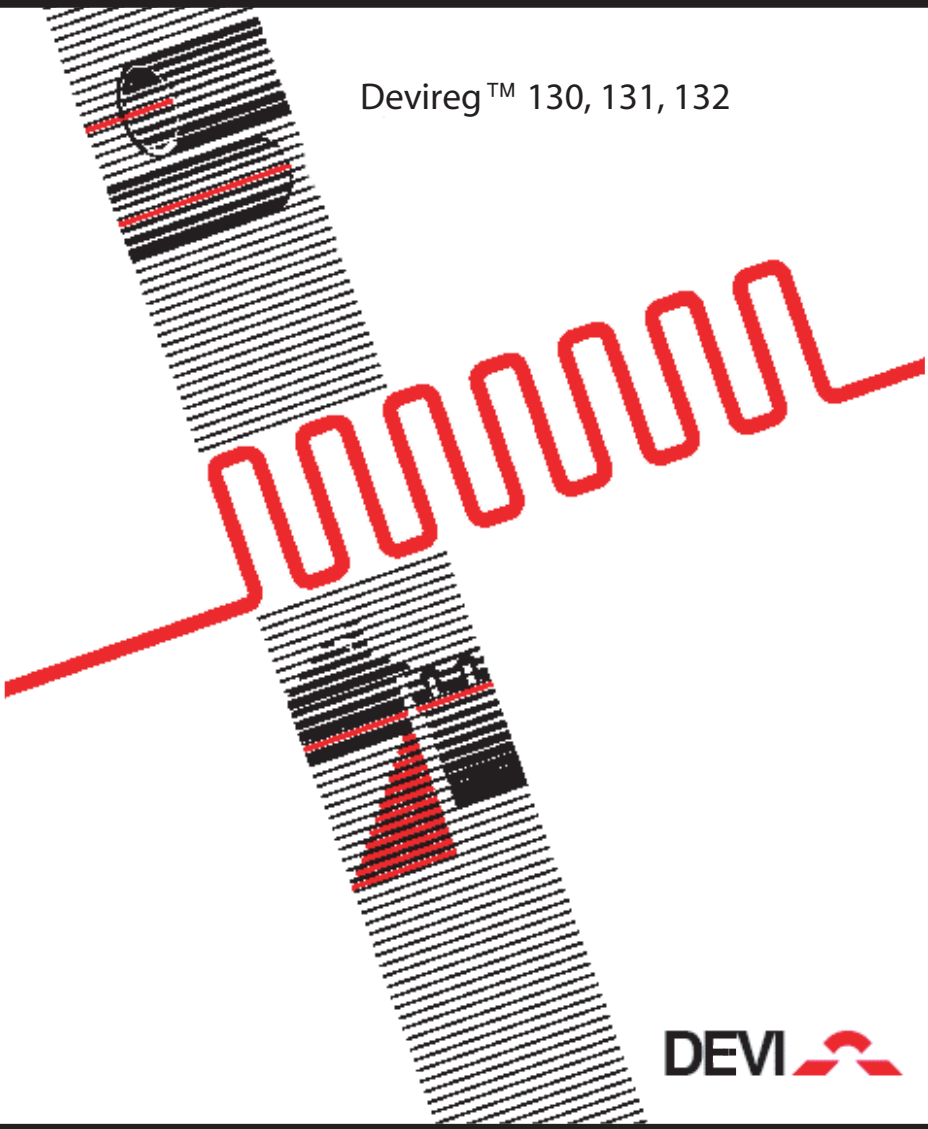
AUS

INSTALLATION INSTRUCTIONS

Devireg™ 130, 131, 132



PLEASE NOTE

The Floor Sensor MUST be installed so that it may be REMOVED for service if required! The sensor probe should be installed into a conduit with no more than one wide-angle bend. This should be installed from the floor to the thermostat or junction box located directly above the heated area.

PLEASE READ ENCLOSED INSTRUCTIONS

Contents:

The installation must only be carried out by a licensed electrician

Applications and Functions

The **Devireg™ 130** Series is a line of electronic thermostats used for control of floor heating.

The **Devireg™ 130** Is used for the sensing of floor temperatures in a floor warming system.

The **Devireg™ 131** This thermostat is supplied with a built-in air sensor for control of the desired air temperature only.

The **Devireg™ 132** Is used for air and floor sensing. This thermostat has a built-in air sensor and an external floor temperature limit sensor. The room sensor is used for control of the room air temperature. The floor limiter is used to maintain a maximum floor temperature for wooden floors and other heat sensitive floors.

Maximum Floor Temperature Settings

Maximum floor limiter is preset at the factory to 35˚C for cable temperature safety.

All product approvals must be observed when changing the maximum preset limiter. You can reset the floor limiter on the Devireg™ 132 by taking off the front cover and with a screwdriver and adjust the sunken temperature dial in the top right hand corner.

For wooden floor constructions DEVI™ recommend the temperature is limited to a maximum of 30°C.

Maximum limiter setting for different floor constructions:

Tiles on timber	30°C
Carpet/vinyl on timber	35°C
Wooden floors (parquet, plank, etc.)	27°C
Tiles on concrete or screed	35°C

Applications and Functions (cont.)

Neon Light Indications (LED)

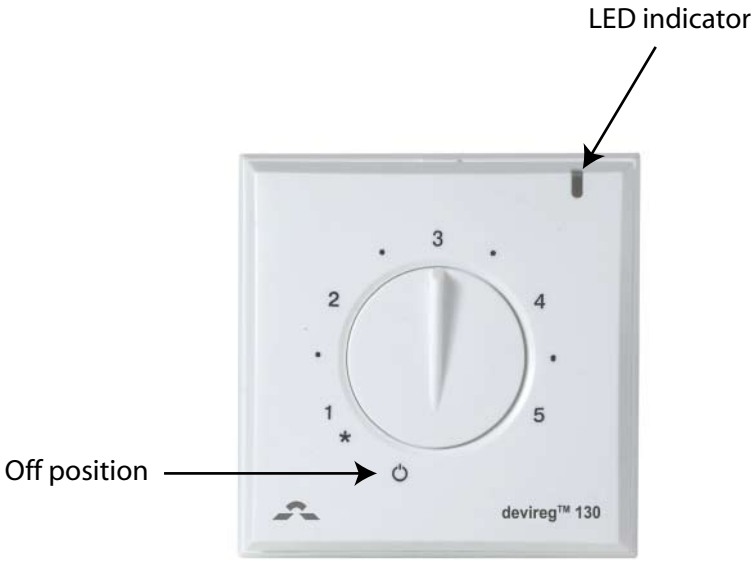
The Devireg™ 130 series has an LED indicator on the top right corner (see illustration).

The LED has four indications:

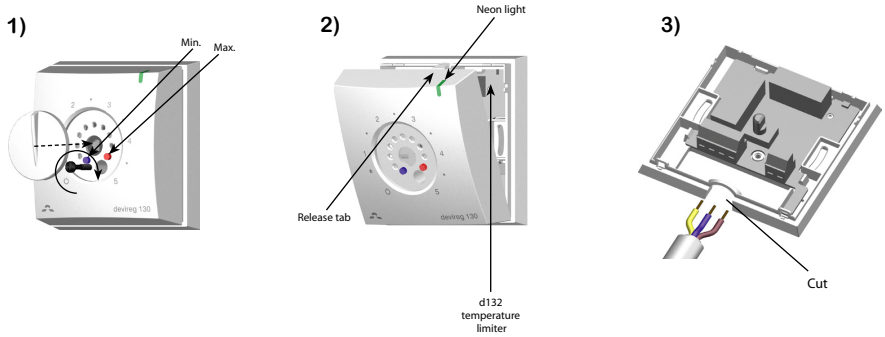
- No light means the system is off.
- Red light means system is heating.
- Green light means power is on but no heating is required.
- Flashing green light means there is a problem with the floor sensor (only applicable for 130 and 132). Please refer to section about "Trouble shooting" for further information.

Is used for setting the thermostat to frost protection mode, ie. keeping the room/floor temperature (depending on type of thermostat) at 5˚C.

Indicates the off position.



Installation Instructions



When installing a thermostat from Devireg™ 130 Series, you must first remove the front cover.
To remove the front cover simply take off the front circular dial then take out the screw.

Installing the floor sensor for the Devireg™ 130 and 132

The floor sensor is inserted into a 10mm or 13mm conduit which is sealed at the end to prevent penetration of concrete, screed, etc into the conduit. The minimum bending radius for the conduit is 50mm.

The sensor conduit must be placed in between two cable runs.

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

Where a floor sensor is used, it is recommended to install it inside a conduit, sealed at the end in the floor, enabling easy replacement of the floor sensor if required. If installed without a conduit, the floor sensor must be installed so that it is inaccessible and not in contact with any conductive building parts.

If the supplied floor sensor is too short, longer ones can be purchased from your local DEVI supplier or it can be extended up to 50m using double insulated cable.

The floor sensor is a LIVE cable; therefore any extension made to the sensor wiring should be treated as for normal mains voltage cabling.

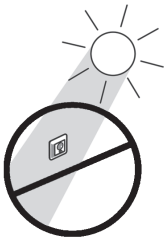
Installation Instructions (cont.)

Placement of Devireg™ 130, 131 and 132

Installation height, typically between 1-1.5m especially when Devireg™ 131/132 is used.

In damp rooms it should be installed on an even surface in accordance with AS/NZ 3000.

At least 500mm away from windows/doors that will be left open occasionally.

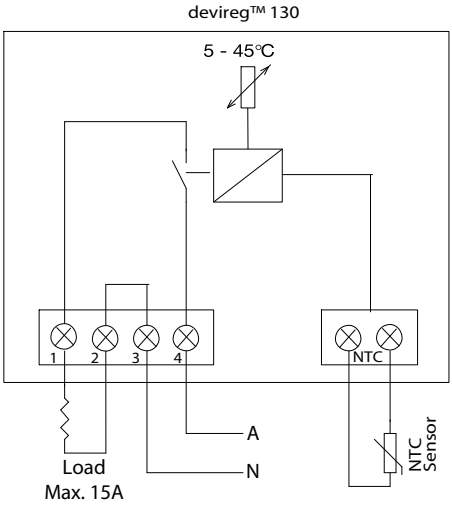


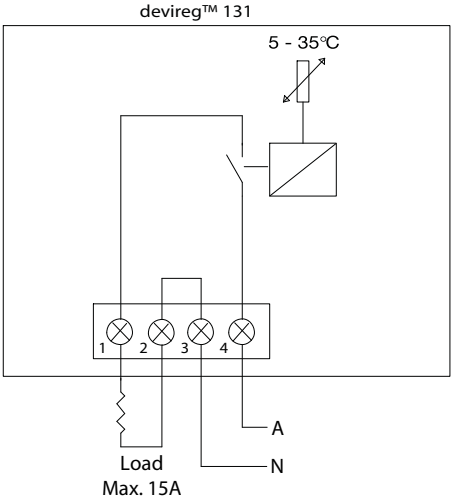
Do not install in direct sunlight

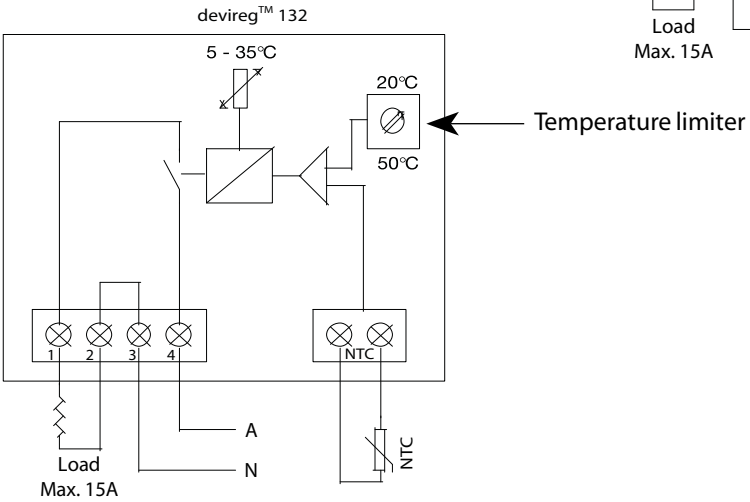
If being used as an air sensing thermostat then it should not be on a cavity wall where it can be affected by draughts.

Installation Instructions (cont.)

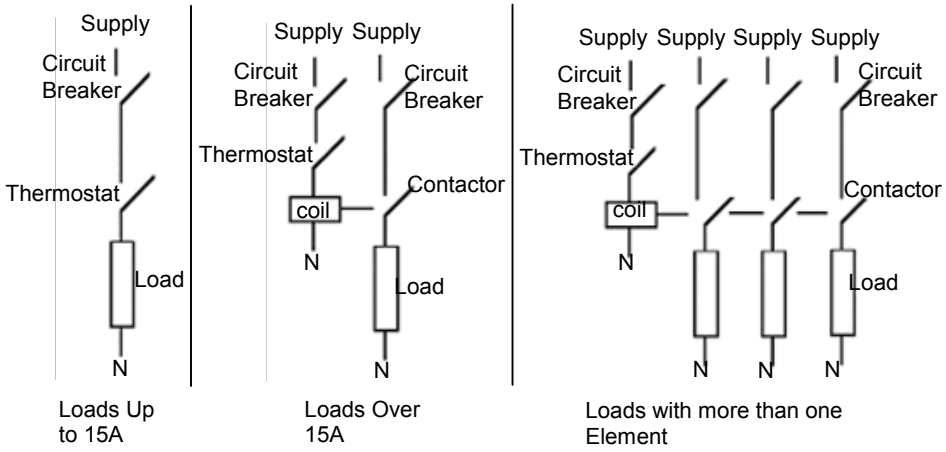
Connection diagrams: For loads under 15Amps







Typical General Wiring Arrangements



Notes:

Contactor size depends on the heating load. Ensure that the contactor selected is suitably sized. Some contactors can be wired to share the load between each terminal. This should, however, be confirmed with the manufacturer. Where a large number of contactor/circuit breakers are mounted close together ventilation spacing may be required. Contactor installation must be in accordance with the manufacturer's recommendations.

Troubleshooting

No Light On Thermostat

If there is no light on the thermostat after turning it on then check that the residual current device (RCD) and breakers are on before contacting an authorized electrician.

Fault: No heat

1) General
   First of all, make sure that all cables, connected to the thermostat, are connected to the correct thermostat terminals and that all connections are tight and making contact.
2) Mains voltage (terminal 3 and 4)
   Ensure that supply voltage 240v is at terminals 3 and 4. If not then check that the RCD and contactor are on.
3) Thermostat output (terminal 1 and 2)
   Measure the voltage at terminal 1 and 2, when the temperature dial is turned up and the neon has turned red the reading should be the same as previously measured at terminal 3 and 4. If the reading is OK, continue to the next step; if not replace the thermostat.
4) Heating cable (terminal 1 and 2)
   Disconnect the heating cable from terminal 1 and 2 on the thermostat. Measure the resistance of the heating cable with an ohm meter, it is now possible to calculate the installed wattage, using the following formula:

   $$P = \frac{U^2}{R} = \frac{240^2}{R} = W$$

   An insulation tester must also be used to ensure there is no leakage between the conductor and earth.
5) External sensor input: NTC (only for Devireg™ 130 and 132)
   Disconnect the external NTC Sensor on the thermostat. Connect an ohm meter to the NTC sensor wire and measure the ohm value (please refer to table on page 10 for correct ohm value). The resistance measured should be within the specified range according to the technical specifications. If not, replace the NTC sensor.

Troubleshooting (cont.)

Fault: Constant heat

Relay constantly on

Measure the voltage at terminal 1 and 2, with the temperature turned right down (that is no green light or flashing green light). There should be no voltage at terminal 1 and 2. If a voltage is measured, replace the thermostat.

Floor sensor open circuit

If the floor sensor (NTC) is disconnected or open circuited the thermostat will be constantly off (due to the sensor interrupt, the LED will flash green). Disconnect the external NTC sensor from the terminals on the thermostat. Connect an ohm meter to the NTC sensor wire, measuring the ohm value. The measured value should be within specified range according to the technical specifications. If not, replace the NTC sensor.

Technical specifications:

Technical data	
Operation voltage:	240 VAC + 10% / - 20%, 50Hz
Power Consumption:	Max. 5W
Relays: - Resistive load: - Inductive load:	 250V ~ 15A 1A (power factor 0.3)
Sensing Unit:	NTC 15kOhm at 25°C
Sensing values: - - 10°C: - 0°C: - 5°C:	 68 kOhm 42 kOhm 6 kOhm
Hysteresis:	~0,2°C
Temperature range: (not operating temperature) - 130: - 131: - 132:	 0-45°C 0-35°C 0-35°C, for temperature limiter: 20 - 50°C
Ambient Temperature:	-10°C to + 50°C
Frost protection:	5° C
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:	82mm x 82m x 36mm

Australian Warranty Certificate

The following Warranty is provided by DEVI Heating Systems
ABN 39 898 434 262, hereinafter referred to as DEVI. It is offered in addition to any relevant statutory Federal or State Warranty.
DEVI is a partner of the DEVI Group of Companies, who are a Danish based specialist heating product manufactuere.
DEVI A/S Denmark is a member of the European Group of Suppliers, and is at all times subject to EEC general product liability rules.

DEVI warrants deviflex® heating cables for a period of TEN (10) YEARS from the date of purchase and all other DEVI prouucts for a period of TWO (2) YEARS, from the date of purchase.

DEVI warrants its products against defects in manufacture, material, or workmanship. Proof of purchase must be provided. Installations must be carried out in accordance with the instructions supplied, and by accredited installers.
An authorized DEVI representative must be given the opportunity to inspect and report on any defects.

The obligation of DEVI, under this warranty, is to repair or replace any product, which, within the above stated time periods, is found to our satisfaction to be defective, free of charge to the customer. However, the labour cost for removing and/or refitting any product will be at the customer's expense. In the case of any removable products such as Thermostats, these are to be returned to the place of purchase, or to DEVI Sydney, where DEVI reserves the right to repair or replace the unit at no charge or unreasonable delay to the customer.

In case of parts not of our own manufacture you are entitled only to such benefits as we may receive under any guarantee given to us by the manufacturers in respect thereof. We shall not be liable for consequential or special damages under any circumstances whatsoever.

This Warranty does not cover faults caused by incorrect installation, damage by others, misuse, misapplication, incorrect voltage, lightning, or incorrect design by others, or where payment is in default. Rectification work, performed as a consequence of matters not covered by the Warranty, will be at the expense of the customer.

DEVI will respond honestly, efficiently and promptly to all queries and reasonable requests from our customers.

DEVI Heating Systems
ABN 39 898 434 262
Head Office
Tel: (02) 9997 2811
Fax: (02) 9997 7852
PO Box 707
MONA VALE NSW 1660
AUSTRALIA

WARRANTY AS SUPPLIED BY DEVI DENMARK

You have purchased a deviheat system, which we are certain will improve your home comfort and economy. deviheat provides complete heating solutions with deviflex heating cables or devimat heating mats, devireg thermostats and devifast fitting bands.
If, however, contrary to all expectations, a problem should occur with your heating system, we at DEVI, with manufacturing units in Denmark, are, as European Union suppliers, subject to general product liability rules, as stated in Directive 85/374/GEE, and all relevant national laws which implies that: DEVI provides a warranty for deviflex heating cables and devimat heating mats for a 10 year period and all other DEVI products for 2 year period against defects in material and production.
The guarantee is granted on the condition that the WARRANTY CERTIFICATE on the overleaf is filled out properly in accordance to instructions and that the defect is inspected by, or presented to, DEVI or authorised DEVI distributor.
Please note that the wording of the WARRANTY CERTIFICATE must be provided in English or local language with the ISO code for your country in the upper left corner of the front page of the installation instructions in order to release the warranty.
The obligation of DEVI will be to repair or supply a new unit, free of charge to the customer, without secondary charges linked to repairing the unit. In case of defective devireg thermostats, DEVI reserves the right to repair the unit free of charge and without unreasonable delay to the customer.
The DEVI warranty does not cover installations made by unauthorised electricians, or faults caused by incorrect designs supplied by others, misuse, damage caused by others, or incorrect installation or any subsequent damage that may occur.
If DEVI is required to inspect or repair any defects caused by any of the above, then all work will be fully chargeable.
The DEVI warranty is void, if payment of the equipment is in default. At all times, we at DEVI will respond honestly, efficiently and promptly to all queries and reasonable requests from our customers.
The above-mentioned warranty concerns product liability whereas matters in relation to legislation on sale of goods shall be referred to national law.

*This Warranty is provided by DEVI A/S, Denmark. Please contact your local DEVI Company for local Warranty details

Use this page to sketch the cable's position.

Notes:

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
DK . 7100 Vejle
Tlf +45 76 42 47 00
Fax +45 76 42 47 03

08095792-14.02.07