# **Installation Guidelines**

devimat™ DTIP-120 for concrete floors, etc

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## devimat™ DTIP-120 heating cable mat

 $\mbox{devimat}^{\mbox{\scriptsize $M$}} \mbox{ DTIP-120 is a 2-conductor} \\ \mbox{heating cable mat}.$ 

The cable is CE-marked, and NEMKO certified in accordance with IEC 60800.

The mats are suitable for both indoor and outdoor use, and may be attached directly to any mesh reinforcement.

#### Areas of use

Installation	Normal W/m²	Max. W/m²
Bathroom floor	120 - 150	200
Living room	80 - 120	120
Hall	100 - 140	200
WC	100 - 140	200
Bedroom	70 - 120	200
Corridor	70 - 120	120
Child's bedroom	70 - 120	200
Basement room	70 - 120	120
Laundry room	120 - 150	200
Office	80 - 120	120

### Cable specifications

Cable **deviflex**<sup>™</sup> DTIP Type 2-wire with screen

Voltage 230 V

Output 120 W/m2 Diameter Ø ~6 mm

Cold tail 2,5 m - 2 x 1,5 mm<sup>2</sup>

m/skjerm

Wire insulation PEX (Polyethylen)

Outer sheath PVC Max. temp. 65°C

### General installation guidelines

The following guidelines must be observed when installing the heating cable mat:

- The heating cable mat must be installed with a fixed connection (not a plug socket).
- The heating cable mat must be connected by an authorised electrician.
- The specified maximum output for various installation and operating conditions must be respected.
- The heating cable mat must be protected against mechanical stress at all times, and must never be stretched.
- 5. Clean the surface and remove any sharp objects.
- The cable's bending diameter must not be less than 6 x the cable's diameter. 4.20 cm.
- 7. Ensure the cable wires do not touch or cross over one another.
- Do not lay the connection or the end of the heating cable in wet areas such as showers or under bathtubs. etc.
- Do not lay the heating cable under built-in baths, cupboards, walls, etc.

 Connect the earth wire of the heating cable in accordance with local regulations.

- Do not shorten the heating cable as this will increase the output per metre.
- 12. Check the insulation resistance and the resistance of the heating cable once it has been installed. This applies both before and after the concrete is poured. The resistance of the mat must be as specified on the label: -5 +10%.
- 13. Do not fix the heating cable of the mat in such a way that it 'locks'. Note that it should still be possible to move the cable after attaching any fixing strips.
- 14. The heating cable mat must be equipped with a circuit breaker with multi-pole breaker at the start of the cable. In addition, we recommend the use of a devireg™ thermostat.

The heating cable should not be installed at temperatures below -7°C. (If you have to fit the cable at low temperatures, connect it to mains for a short while as this will make it easier to install. Please note that the cable mat must be unwound to keep the cable temperature from getting too high.)



Fig. 1

### Installing the cable mat in cement floors

Begin by fastening the heating cable mat to the mesh reinforcement using strips or fixing wire. Do not fix the heating cable of the mat in such a way that it 'locks' – it must be able to move.

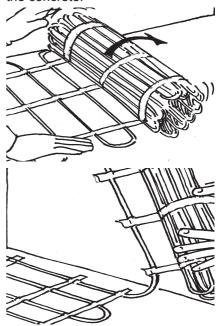
Unroll the mat up to the point at which it is to be rotated.

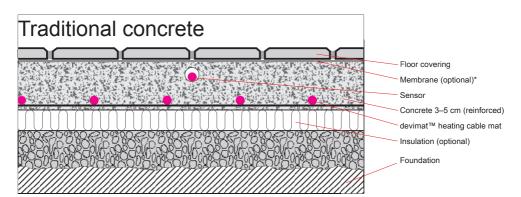
Cut the tape using scissors and rotate the mat so that it can be unrolled to cover the area next to the part of the mat that has already been unrolled. Do not cut the cable!

The cable can be loosend from the tape, and can be placed as usual. This feature can be very usefull around drains or other objects.

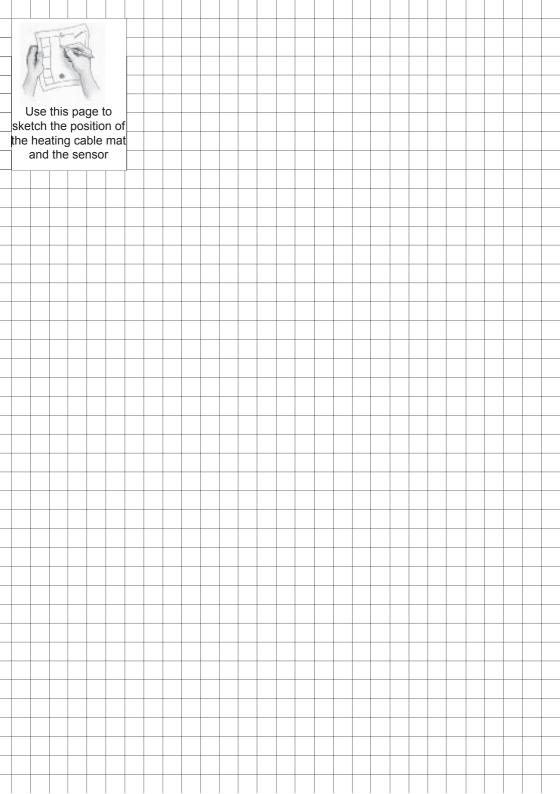
A devireg™ thermostat should be used at all times. If a floor sensor is used, it should be installed in a pipe. The pipe should be placed in the concrete between the cable loops and the end of the pipe should be sealed. We recommend that you draw a simple sketch showing the heating cable mat and the sensor position.

A decision must be made as to whether or not the floor should be insulated. This depends on the existing floor construction, the location of the floor, the construction height, etc. The under floor heating must not be used until the concrete has hardened, i.e. after approximately 6–8 weeks or as specified by the manufacturer of the concrete.





<sup>\*)</sup> Membrane must be applied in accordance with local building regulations.



## **DEVI Warranty**

You have purchased a deviheat™ system, which we are certain, will increase your home comfort and improve your 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/CEE, and all relevant national laws which imply that:

**DEVI** provides a warranty for deviflex<sup>™</sup> heating cables and devimat<sup>™</sup> heating mats for a 10 year period and all other **DEVI** products for a 2 year period against defects in material and production.

The guarantee is granted on the conditions that the WARRANTY CER-TIFICATE on the overleaf is filled out properly in accordance with 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 instruction 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.



# WARRANTY CERTIFICATE

#### The DEVI Guarantee is offered to:

Name:		Telephone:	
Address:		Post code/city	y:
The DEVI Guarantee shall tion has been supplied. Pl	Please I be applica ease refer ditional cor	ble only if the f to the back of t	ollowing informa- this certificate for
Electrician:			Date of purchase:
			Date of inst.:
Mat length:  Stock code:  Application:  Cement Earth	Wattage	de:	Code on coupling box:
DEVI A/S Ulvehavevej 61 DK - 7100 Vejle Tel.: +45 76 42 47 00 Fax: +45 76 42 47 03 Internet: www.devi.com E-mail: info@devi.com			