

Heating Cables



INSTALLER SUMMARY for In-Screed Under Floor Electric Heating

Intelligent Electric Floor Heating™

This is a quick reference for WET and DRY area installs. Please refer to the *“Installation Guide, Heating Cables, for In-Slab and In-Screed Applications”*

Summary guide for In-Screed heating cables

- DEVIflex™ 18T In-screed floor heating for most floor surfaces, except timber
- DEVIflex™ 10T In-screed, timber floors, pipe trace heating



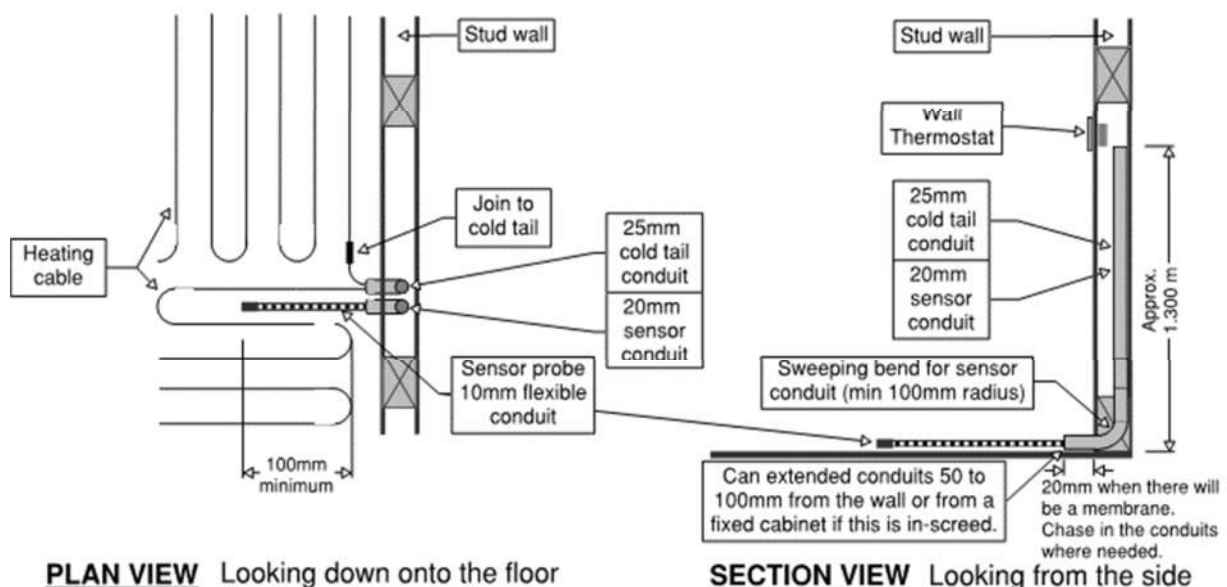
The Installation Guide details the full installation requirements to be followed
<http://www.devexsystems.com.au/electric-and-hydronic-floor-heating-documentation.html>

PRE-INSTALLATION CHECKLIST

- Determine the location of the thermostat and power supply.
- Ensure adequate power capacity, and connection to RCD protection.
- If over 12A thermostat load, then contactors are required to be wired in (refer to contactor info sheet).
- Separate conduits are required to the floor for heating cables, and separately for each thermostat sensor.

RECOMMENDED CONDUIT INSTALLATION METHOD

This EXAMPLE shows a typical installation for a twin heating cable (with one cold tail). Conduits are shown for an in-screed installation with a waterproof membrane.



For further details, please refer to the *“Conduit Installation Guide”*.

KEY POINTS

All the heating cable must be in the screed or slab, and thermal insulation is recommended under the cables.

Heating cable must not be cut or shortened, however, their cold tails may be cut or extended. The cold tail termination(s) to the heating cables must be embedded in the floor.

Heating cable installation must be connected to RCD protection and carried out under the supervision of a licensed electrician. The outer screen of each heating cable must be earthed (at both ends for two cold tail heating cables).

The switchboard/distribution board must clearly identify the floor heating installation location and detail.

Failure to comply with the full Installation Guide will void the warranty.

Target spacing is 100mm for dry areas and 75mm for wet areas.

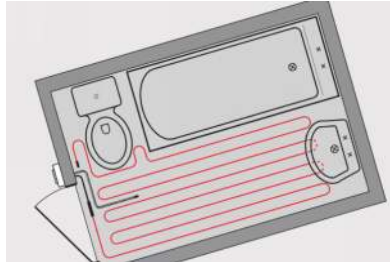
Spacing for a supplied cable (spacing to be within guidelines for the application)

$$\text{Average Cable Spacing C-C (mm)} = \frac{\text{Area to be heated (m}^2\text{) x 1000}}{\text{Cable length (m)}} \quad \text{e.g.} \quad \frac{3.0 \text{ m}^2 \times 1000}{39 \text{ m}}$$

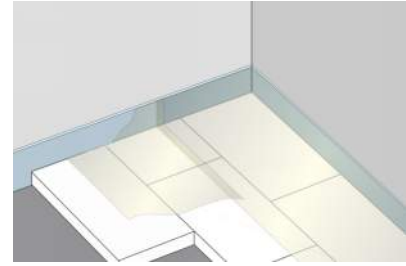
IN-SCREED INSTALLER SUMMARY Heating Cable Installation Steps



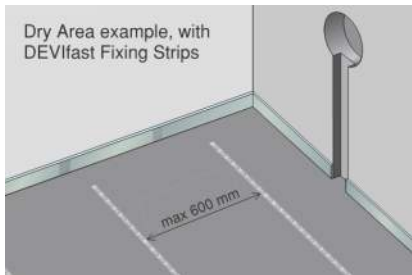
- 1. Cable heating system**
- Heating cable
 - Thermostat (with floor sensor)
 - Sensor flexible conduit (10mm)
 - Mesh and ties (or fixing strip)



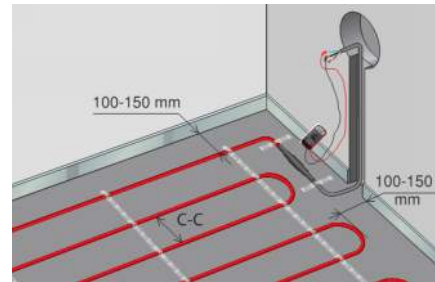
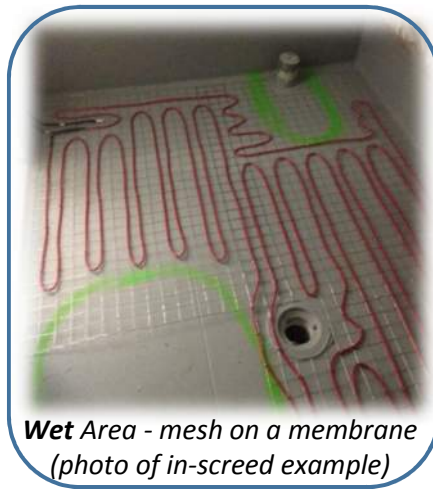
- 2. Draw a plan showing the actual heated area, heating cable, cold tail location, floor sensor position, thermostat and connection box (if any).**



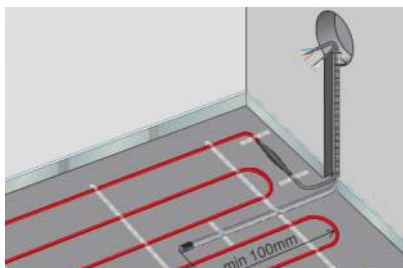
- 3. Install appropriate thermal insulation on the existing floor.**



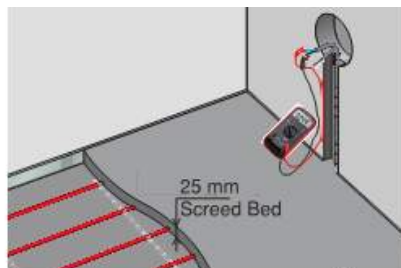
- 4. Lay wire mesh (if wet area) for tying the heating cables in position, or fit DEVIfast™ fixing strip (if dry area). Cable tie points are spaced max 600 mm apart.**



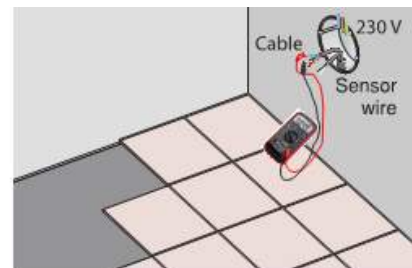
- 5. Check the heating cable resistance and its insulation resistance values. Install the heating cable spaced from walls 100 to 150mm. Ensure that the cable spacing requirements are adhered to.**



- 6. Install individual conduits for the power cables and the floor sensor (see details). Check the resistance of the sensor before installing it. (15k ohms when at 25°C)**



- 7. Before pouring concrete or laying the screed bed, take photos of the installed cables, meter readings, etc. - check the cable resistance and insulation resistance values again.**



- 8. Check the cable resistance and the insulation resistance values again when installing the thermostat (they are usually installed later).**

Read the installation guides supplied with the heating cables and thermostats for any specific requirements relating to your installation.

Heating cables must be securely attached to the floor before pouring concrete/screeds so that the cables cannot lift or vary their spacing. Air pockets around the cables must be prevented.

Heating cables must never touch or cross over each other or failure is likely.

Not complying with the full Installation Guide will void the warranty.

Please contact Devex Systems (phone 1800 636 091) if unsure of any aspect of the installation.

Please REFER TO THE FULL "INSTALLATION GUIDE for Heating Cables for In-Slab and In-Screed Applications".

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Devex Systems specialises in heating & cooling solutions for new and existing buildings in residential, commercial and industrial environments.

For more information on any of our product lines, please contact us at:
1800 636 091 or info@devexsystems.com.au
www.devexsystems.com.au

