

# Heating Cables

# DEVI®

## INSTALLER SUMMARY for Thin Floor

## Intelligent Electric Floor Heating™

### Under Floor Electric Heating with DEVI<sup>mat</sup>™ cables

This is a quick reference for WET and DRY area installs. Please refer to the *“Installation Guide, Heating Elements, for Thin Floor Applications”*



Summary guide for Thin Floor heating elements

- DEVI<sup>mat</sup>™ DSVF-150 150W/m<sup>2</sup> 2.5mm single conductor cable (two cold tails)
- DEVI<sup>mat</sup>™ DTIF-150 150W/m<sup>2</sup> 3.5mm twin conductor cable Low EMF (single cold tail)
- DEVI<sup>mat</sup>™ DTIF-100 100W/m<sup>2</sup> 3.5mm twin conductor cable Low EMF (single cold tail) for Timber floors

The Installation Guide details the full installation requirements to be followed

<http://www.devexsystems.com.au/electric-and-hydronic-floor-heating-documentation.html>

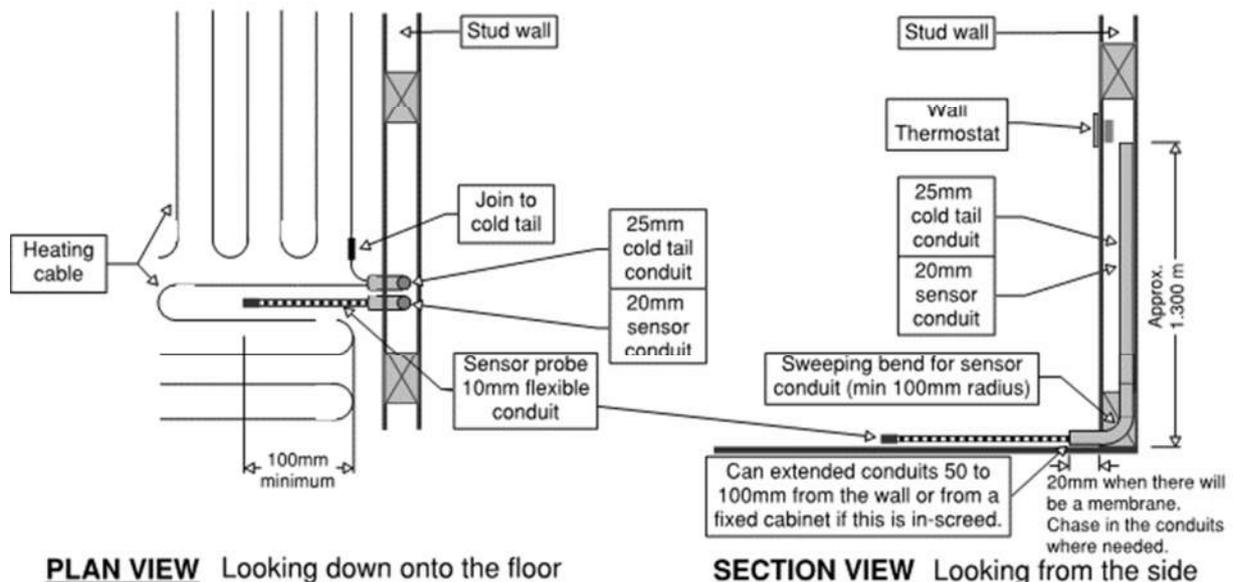
### PRE-INSTALLATION CHECKLIST

- 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 elements, 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.



**PLAN VIEW** Looking down onto the floor

**SECTION VIEW** Looking from the side

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

### KEY POINTS

All the heating element must be in a glue or thin levelling bed, and thermal insulation is recommended under the cables.

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

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

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 75mm.

# THIN FLOOR INSTALLER SUMMARY Heating Element Installation Steps



1. Cable heating system
  - DEVI<sup>TM</sup> heating mat
  - Thermostat (with floor sensor)
  - Sensor flexible conduit (10mm)



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



3. Glue appropriate **thermal insulation** onto the existing floor (e.g. F-Board). Allow to dry (min 24 hr). Cut a groove for sensor and terminations.



4. Install flexible **sensor conduit** (10mm OD) into the groove. Grooves are also needed for the terminations. Clean the floor so there is no dust or sharp protrusions.



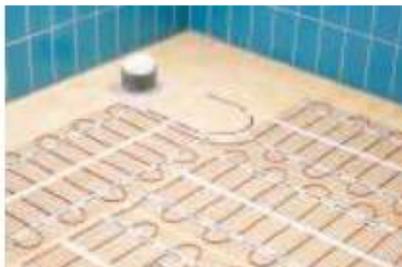
5. Check the heating mat cable resistance and its insulation resistance values. Roll out the mat onto the floor from the thermostat position, sticky side down.



6. The mesh mat can be cut to go around fixtures and to cover the floor area to be heated. **DO NOT CUT the heating element.**



7. **Space** 100 mm from walls. Avoid any obstacles and fixtures. Mats spaced approx. 80mm apart. Minimum spacing 50mm between any two heating elements.



8. **Lay out mat** to entire surface. Check the cable resistance and the insulation resistance values again before laying tiles. Photograph installation layout and meter readings.



9. Apply tile **glue and lay tiles**. Careful not to damage the cables. Check the cable resistance and the insulation resistance values again when installing the thermostat.

**Read the installation guides** supplied with the heating element cables and thermostats for any specific requirements relating to your selected products applicable to your installation.

**Heating elements must be securely attached** to the floor before laying tiles so that the elements will not move or vary their spacing. A hot glue gun may be used on the mat. Air pockets around the cables must be prevented. An appropriate thin levelling bed may be laid instead of tile glue. Heating elements must never touch or cross over each other or failure is likely - minimum 50mm cable spacing.

Failure to comply with the 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 Elements for Thin Floor 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](mailto:info@devexsystems.com.au)  
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