Comfortline Low Temp Radiant Heating System - Specification.

This section relates to the supply and installation of **Comfortline Low Temperature Radiant** **Heating** **Systems** for heating and control in domestic, residential, education, community, commercial and industrial applications.

**1. DOCUMENTS**

1.1 **Product and installation Compliance Documents.**

 Compliance with the following documents is required during the installation, commissioning, and testing of installed Devi products:

 [NZBC G9](http://www.masterspec.co.nz/redirect.aspx?pl=251)/VM1 Electricity, 1.0 Electrical installations.

 AS/NZS 60335-2.30 Electrical safety

 IEC 60730-2-9 DEVIreg thermostat.

 AS/NZS4219 Seismic Properties of installation.

### 1.2 **Manufacturers Documents.**

 **Comfortline** product information, installation instructions and warranty documents are supplied with all products.

 Additional copies of these instructions are available from:

 Web: [www.devi.co.nz](http://www.devi.co.nz)

 Email: info@devi.co.nz

 Telephone: South Island 03 348 0070 or 0800 468 356

 North Island 09 415 7250 or 0800 927 635

1.3 **Warranty –** **Manufacturer/Supplier.**

 The manufacturer’s warranty is:

 Comfortline CL range of low temperature heater 5 years.

 Comfortline CLK range of low temperature heaters 2 years.

 Comfortline CH range of low temperature heaters 2 years.

 Warranties must be provided using the manufacturer/supplier standard forms as supplied. Warranties commence from the date of installation.

 Work undertaken by each subtrade shall be covered by their own warranty.

### **2**. **RELATED WORKS.**

 Electrical specification.

 Mechanical specification.

 Ceiling installers.

**3. CONDITIONS.**

All work and materials must comply with Comfortline installation instructions.

### **4.** **QUALIFICATIONS.**

###  Installation must be undertaken by an electrical or mechanical trades person holding relevant trade certification.

###  Refer section 7.3 for livening.

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## 5. COMFORTLINE PRODUCT AND DESIGN INFORMATION.

5.1 Substitutions are not permitted to any Comfortline heaters or associated products, components, or accessories.

5.2 Comfortline radiant heating systems are European manufacturedheaters made to stringent quality procedures in ISO9000 registered facility.

5.3 Low temperature radiant heaters shall have

* fiberglass wool insulation in the back of heater.
* thermo-quartz coating on the interior radiating surface.
* high emissivity thermos-crystal coating on the outer radiating surface.

5.4 HEATER MODELS.

 CL300 Low temperature 300W panel, IP44 Ceiling or wall mounting.

 CL30IN Low temperature 300W panel, IP65 Ceiling or wall mounting.

 CL600 Low temperature 600W panel, IP44 Ceiling or wall mounting.

 CL750 Low temperature 750W panel, IP44 Ceiling or wall mounting.

 CL750IN Low temperature 750W panel, IP65 Ceiling or wall mounting.

 CLK200 Low temperature 200W panel, IP44 Under desk mounting.

 CLK270 Low temperature 270W panel, IP44 Under desk mounting.

 CH400 Low temperature 400W panel, IP44 Under pew mounting.

 CH600 Low temperature 600W panel, IP44 Under pew mounting.

 (Delete heater models that are not applicable then delete this line).

5.5 THERMOSTATS.

 DEVIreg™ 530  Thermostat, Manual, 15A with floor sensor.

 DEVIreg™ 531 Thermostat, Manual, 15A with air sensor

 DEVIreg™ Touch (White) Thermostat, Programmable, 16A, air and/or a floor sensor.

 DEVIreg™ Touch (Black) Thermostat, Programmable, 16A, air and/or a floor sensor.

 DEVIreg™ Smart (White) Thermostat, WiFi Programmable, 16A, air and/or

 floor sensor.

 DEVIreg™ Smart (Black) Thermostat, WiFi Programmable, 16A, air and/or

 floor sensor.

 DEVIreg™ 330 Thermostat, Manual, Distribution board mount.16A with remote wall mount room sensor.

 DEVIreg™ Multi 7 Channel distribution board mounted programmable.

 Thermostat and air sensors with Bacnet interface.

 (Delete thermostat models that are not applicable then delete this line).

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## 6. EXECUTION.

### 6.1 **Confirm Layout.**

 Before commencing work confirm the proposed location of heaters and controls.

### 6.2 **Co-ordinate Services.**

 Co-ordinate and co-operate with other sub-trades to avoid any conflict with the installation of the system.

6.3 **Preliminary Works.**

 Prewire electrical cabling according to the heating design.

### 6.4 **Installation of Comfortline Heaters.**

 Install Comfortline low temperature radiant heaters in accordance with design and the supplied installation instructions.

 If the heater is to be recessed into a plasterboard (or similar form) ceiling, use Comfortline proprietary recess frame.

 If the heater is to be recessed into a suspended grid ceiling, use Comfortline 08-LTSR-Kit to seismically secure the heater to ceiling grid.

### 6.5 **Install Thermostat.**

 Install thermostat and/or sensors for each zone as per design and in accordance with Thermostat installation instructions.

### **7.** **TEST PROCEDURES AND COMMISSIONING.**

7.1 Refer AS/NZS3000 section 8 Verification.

7.2 Complete visual inspection, conductor resistance and insulation resistance test prior to livening the circuit. Record the tests in the record panel in the installation manual. The manual is to be given to whomever the electrician is contracted.

7.3 A registered electrician must complete the test result panel and associated Certificate of Compliance.

### **8.** **CONTROLS SETTINGS.**

8.1 Where programmable or intelligent thermostats are installed, the correct day and time must be programmed then left in manual off state.

8.2 Manual thermostats to be left in off mode and set to minimum temperature.

### **9.** **CLEANING.**

 Check site for safety and remove all surplus materials.