

Electric Central Heating Without Pipes!  
No Boiler-No Pipes-No maintenance



## Why Electric Heating?

Electric is the fuel of the future for heating requirements. Dwindling supplies of north sea gas, the uncertainty of imported gas supplies, the volatility of oil prices and the commitment to reduce the U.K. carbon footprint all point towards electricity as the fuel of the future. The government has set a clear path towards a lower carbon future, with electricity to be generated by nuclear power and sustainable sources e.g. wind power, solar energy, wave power etc. Electric heating is 100% efficient and carbon neutral at the point of use, and with electricity being generated by nuclear and renewable sources in the future it will become completely carbon neutral. The government also promotes the use of microgeneration technologies e.g solar panels, photovoltaics and wind turbines. Electric heating appliances are compatible with all these microgeneration technologies. As more low carbon and renewable sources of electricity become available we will increasingly see electric heating being favoured over gas.

### BENEFITS OF ELECTRIC HEATING

Low capital and installation costs

Electric heating is very easy to install. There is no requirement for unsightly pipework, and minimal disruption during installation. Because each heater can work independently, it is easy to add to a system as necessary or as budgets permit.

### LOW OWNERSHIP COSTS

The true ownership costs of a heating system should be looked at over a system lifetime. Electric heating systems have no moving parts and can be expected to last over 15 years. The boiler industry quotes a lifetime of 10 years for a boiler. Boiler based systems require costly yearly maintenance whereas electric systems are maintenance free. Electric heating is 100% efficient at the point of use meaning all the fuel used is turned into heat unlike boiler systems where energy is wasted through the flue. No Maintenance and no annual inspection. Yearly maintenance and safety checks can add significant costs to the running of a system. Gas boiler systems require yearly maintenance and if used within rental properties, both private and social housing landlords are responsible for annual safety inspections. This can also be a major hassle for landlords needing to gain access to properties to conduct maintenance and safety checks. Electric heating does not require any maintenance or safety inspections.

### COMFORT AND CONTROL

Significant developments in electric heating have produced systems with highly accurate electronic thermostatic controls. The Electrorad range offer thermostats capable of maintaining a room temperature to within  $\pm 0.1$  C. This ensures optimum comfort and only the use of energy that's needed.

### PART L – BUILDING REGULATIONS

The Electrorad system makes it easy to meet the requirements of Part L of the building regulations, with highly sophisticated zoned control systems.



Central convection fins ensure the perfect balance of radiant and convection heat. Radiant heat warms people directly, just like the sun's rays and the convection heat warms the air.

Digi-Line radiators do not need a circulation pump, or any moving parts so there is absolutely silent operation and nothing to wear out.

**Below:** Digi-Line double panel radiator.







## Features

Electric dynamic fluid filled convector radiator with integrated digital room thermostat.

Manufactured using the latest technology available.

Designed to look and work just like a traditional wet central heating system and built with quality materials to the highest technical standards gained through years of experience in the heating industry. Manufactured to the latest safety standards and carries the European safety CE mark.

The discrete design and high quality materials and finish gives the Radiator its elegant timeless looks.

The environmentally friendly and recyclable fluid heats rapidly and naturally circulates to heat the whole surface area of the radiator. The fluid will never freeze and protects the radiator from internal corrosion.

## Energy Saving

The digi-line integral thermostat has an internal micro chip ( Double Proportional Band ) which will maintain a room temperature with an accuracy of  $\pm 0.1^{\circ}\text{C}$  ensuring a minimum of energy usage and optimum comfort. Each thermostat has a radio frequency receiver built in to allow for central programming from our 4 zone central programming unit without any wiring being required.



Each radiator can be used independently with the integral digital electronic thermostat or can be centrally controlled using the optional 4 zone radio frequency programmer - shown right



### Energy Saving Open Window Feature

You can choose to activate this setting so when the radiator senses that a window has been opened it will automatically shut itself down to save energy from being wasted.

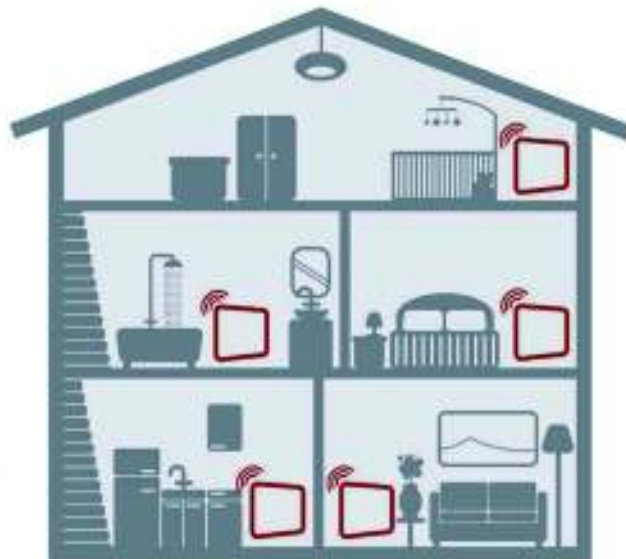




# Digi-Line Radio Frequency (RF) Control System

The key to energy efficiency and economy in a heating system is Controllability. The Digi-line RF control system gives complete and accurate control. Each radiator has it's own integral room thermostat, accurate to  $\pm 0.1^{\circ}\text{C}$ .

Each thermostat has a radio frequency receiver built in to allow for central programming from our 4 zone central programming unit.



The central programmer gives complete control over the full system without any need for wiring.

The programmer can be wall mounted or can sit on a desk or table. The programmer is lockable in case you don't want the programs to be tampered with.

The comfort and economy temperature parameters are set on each radiator and the property is then split in to 4 zones ( or less ).

Every room can have different temperatures.  
Every zone can have different operating times.

Each radiator has it's own integral radio receiver

Complete control at your fingertips! Each room can have exactly the operating times and temperatures you want, ensuring ultimate comfort and economy.

An unlimited number of radiators can be controlled from the central programmer ( Range allowing )

Maximum range 30 metres.

## Digi-Line For Conservatories



The Digi-Line Range is available in 300mm height. This is particularly suitable for conservatory dwarf walls.

When adding a conservatory it is often not cost effective or desirable to extend the existing central heating system. The boiler may not be capable of taking the extra heating load, it may be difficult or unsightly to pipe through and it may be difficult to regulate the conservatory temperature.

By using a Digi-Line radiator this is all avoided. The conservatory temperature will be accurately maintained, there will be no pipework and no impact on your existing system.

Because each radiator has it's own room thermostat, fitting a Digi-Line radiator in your new conservatory means immediate compliance with the building regulations for heating in conservatories.

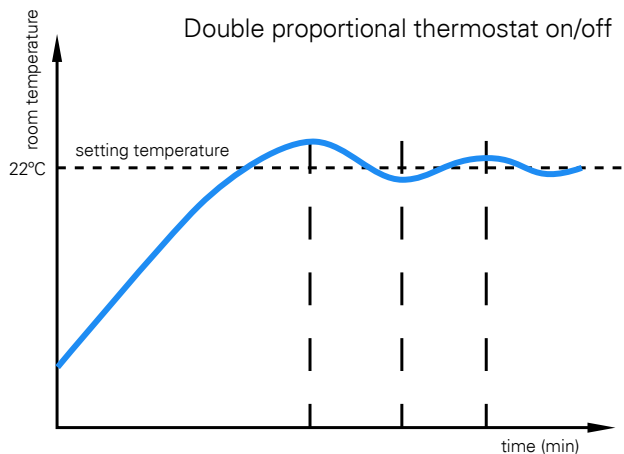
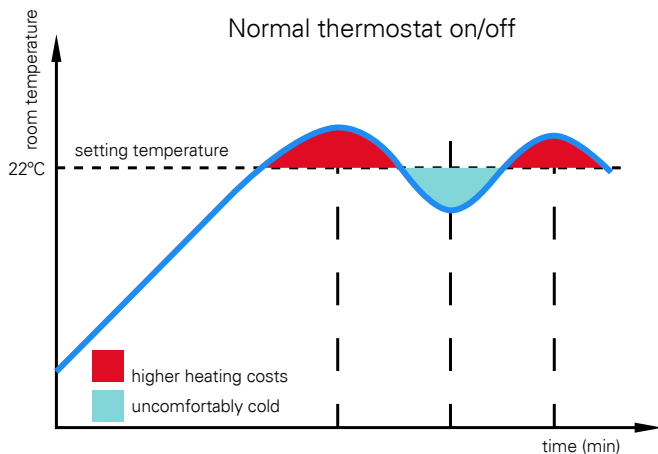
Digi-Line radiators will match aesthetically with your existing radiators.

The RF programming system is probably the best option, but there are also other ways of setting up your Digi-Line heating system.

1. If timing is not required, just simply connect to a 13 amp supply ( either plug in or wire to a fused spur ) and just use the thermostat on the radiator.
2. Fit a plug and use plug in timer clocks

3. Wire a dedicated heating circuit, wired back to a dedicated consumer unit and fit a central timing system
4. If replacing night storage heaters, the heating circuit is already in place. Simply wire in to the existing fused spurs, change the electric supply from economy 7 to either standard tariff or switch to economy 10. A timing system can be fitted to the heating circuit for central timing control

## THE IMPORTANCE OF ACCURATE THERMOSTATIC CONTROL



Digi-Line radiators have double proportional band ( PI & PWM ) thermostats to ensure extremely accurate room temperature maintenance. As seen above, without this feature there is a tendency for going well over and well under the target temperature throughout the heating cycle. This has a large impact on both comfort and economy. Every time the heating system overshoots the target temperature, it has cost you money to raise the room temperature higher than necessary. When the room temperature drops below the target temperature it will cost money to re-raise the temperature back to the target temperature.

The Digi-Line thermostat is accurate to  $\pm 0.1^{\circ}\text{C}$ .

With Digi-Line heating systems, you have absolute control over the energy usage in every room. Every room can have different operating temperatures and different operating times meaning you only ever use the energy absolutely needed.

Digi-Line radiators produce radiant heat and convection heat. Radiant heat warms people and objects while convection heat warms the air in the room. It is important to have a mix of both to feel comfortably warm which is why radiators are designed the way they are.

Panel heaters and storage heaters only provide convection heat.



### Some more innovative and energy saving features

#### Double panel control

When the room temperature is within  $1^{\circ}\text{C}$  of the set point the front panel only will operate. If the room temperature is more than  $1^{\circ}\text{C}$  below the set point then the back panel will operate to act as a boost.

#### Surface temperature Regulation

The surface temperature can be regulated to be either  $90^{\circ}\text{C}$ ,  $75^{\circ}\text{C}$  or  $60^{\circ}\text{C}$ . Limiting the surface temperature will also reduce the heat output but can give peace of mind for safety with children etc.



# Technical Specification

Model Ref.	Output (Watts)	Output (BTU)	Height(mm)	Length(mm)	Depth(mm)	Weight(KG)
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## Single Panel Radiators

DE50SC55	500	1707	500	550	60	11
DE50SC80	750	2560	500	800	60	15
DE50SC105	1000	3414	500	1050	60	20
DE50SC130	1250	4268	500	1300	60	23
DE30SC40	250	1366	300	400	60	6
DE30SC80	500	1707	300	800	60	10
DE30SC110	750	2560	300	1100	60	13
DE30SC150	1000	3414	300	1500	60	17

## Double Panel Radiators

DE50DX40	500	1707	500	400	80	14
DE50DX50	750	2560	500	500	80	17
DE50DX65	1000	3414	500	650	80	20
DE50DX80	1250	4268	500	800	80	24
DE50DX95	1500	5121	500	950	80	30
DE50DX125	2000	6828	500	1250	80	37
DE30DX50	500	1707	300	500	80	10
DE30DX80	750	2560	300	800	80	15
DE30DX100	1000	3414	300	1000	80	20
DE30DX130	1250	4268	300	1300	80	25
DE30DX160	1500	5121	300	1600	80	30
DE30DX200	2000	6828	300	2000	80	36



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