

Wireless Solutions

Honeywell



Wireless Heating Control Products



Why choose wireless heating controls?

- **They are easy to install and easy to use**
- **They overcome any difficult installation problems you may face**
 - As there is no additional wiring over and above wiring of one control into the existing system there is no disruption to the fabric of the building when retrofitting controls, no lifting floors; damaging décor; eliminates problems with laminate flooring.
 - Use wireless controls when you need to fit controls in confined spaces; or to control remote applications including external boilers.
- **They provide easy solutions to comply with Part L zoning requirements**
 - You can easily create heating and hot water zones to:
 - Ensure compliance with Part L Building Regulations.
 - Offer extra energy efficiency opportunities by allowing zoning in a property – easily create up to 32 heating zones in the one property.
- **No Part P requirement**
 - Because there is very little wiring, systems can be installed without requiring Part P Building Regulations notification relating to electrical installations.

Why an installer should choose Sundial RF² heating controls?

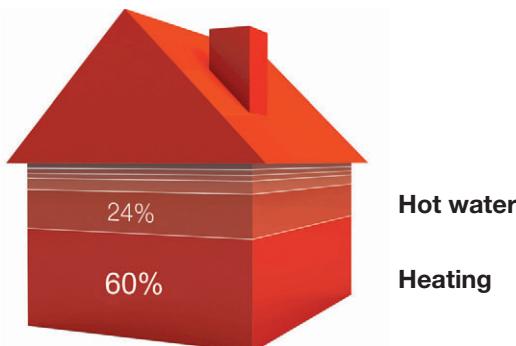
- **You only need to replace one control and the rest of the controls work straight from the box**
 - Complete work faster; offer your customers easy retrofit opportunities.
 - Easy diagnostics and intuitive set up makes installation easy.
- **Packaging of system components together makes selecting the right products for the right job easy**
 - A solution is available for all boilers and systems including where remote boilers are included in the system.
 - Zoning timing control now in one place in the system.
- **Wireless heating controls offer the home owner control of their heating that reflects the lifestyle they lead**
 - Allows the measurement of temperature wherever the home owner happens to be in the property.
 - Allows them to adapt their heating to suit their lifestyle.
 - Create heating and hot water zones.
 - Use the advantages of 7 day timers to vary their heating requirements.
 - Gain the benefit of easy to use controls that react to changing circumstances i.e eco button & holiday buttons.
 - React with outside temperature changes, to ensure that heat is offered when it is required and only when it is required.
 - Ensure boilers work to their full efficiency.



Contents:

- 2-3 Introduction to wireless control products
- 4-7 Sundial RF²
- 4 Sundial RF² Product Selector
- 5 Sundial RF² Product Features
- 6-7 Sundial RF² System Components
- 8-9 Individual wireless products
- 8 CM920 1/7 Day Wireless Programmable Room Thermostats
- 9 CM720 1/7 Day Wireless Programmable Room Thermostats
DT92E Wireless Digital Room Thermostat
Y6630D Wireless Analogue Room Thermostat
- 10-11 evohome multi zoning system
- 10 evohome Sundial Pack
evotouch Thermostat Pack
- 11 evohome Zoning Pack
evohome underfloor heating
evohome products

Energy efficiency



- A huge 84% of our domestic energy consumption is used through the generation of heating and hot water*
- 8.5 million homes in the UK do not have a room thermostat*
- Why fit a thermostat? You wouldn't control all your lights from just one switch, why do you control your heating from just one place?
- A modern programmable thermostat will give you the control over your heating you never knew you needed!

* Government figures from BERR

Sundial RF² - we've got wireless heating wrapped up

Sundial RF² packs are boxed sets of controls that feature a combination of a wireless enabled timer, wireless thermostat and wireless cylinder thermostat, to suit a range of installation types. The timer has a wireless receiver built-in. This means that simply by replacing an old timer a thermostat is enabled in a system without having to run any new wiring.

With Sundial RF² you get:

- A two-way wireless receiver built into the timer avoiding the need to wire extra receivers into the heating system.
- Products that are set up so that as soon as they are installed they will start to communicate with the RF² timer.
- A wired timer that can easily be fitted in place of existing controls.
- Thermostats that can be free-standing or wall mounted.
- Products that fit on to industry standard back plates for fast and easy replacement.
- A wireless cylinder thermostat that can be swiftly integrated into the system.
- Timers that have Optimisation features (Optimum Start, Delayed Start and Optimum Stop energy saving technology) as standard (see page 5).
- Digital thermostats that have TPI (Time proportional and Integral) control and energy saving features to reduce energy demand.

Pack Information

Pack 1

- Ideal for adding a room thermostat to combi boilers and single heating zones.

Pack 2

- Ideal for adding a room thermostat to an existing Sundial system that has stored hot water and a DHW thermostat.

Pack 3

- Ideal for adding a room thermostat and cylinder thermostat to new and existing Sundial systems, or upgrading a gravity hot water system.

Pack 4

- Ideal for adding a hot water timer and cylinder thermostat to new and existing Sundial systems, or upgrading a gravity hot water system.

Pack 5

- Ideal for providing 2 heating zones - enables compliance to latest Building Regulations Part L 2010.

Sundial RF² Product Selector

What type of Boiler system are you working on?	I need to...	RF ² Pack required
For new and existing heating systems with a combination boiler	Install a new control system or Replace the existing wired system components	Sundial RF ² Pack 1 
For new and existing stored hot water heating systems	Replace the existing wired system components for systems with no cylinder thermostat (or you are keeping the existing cylinder thermostat)	Sundial RF ² Pack 2 
For new and existing stored hot water heating systems	Install a new control system or Replace the existing wired system and replace or install a new cylinder thermostat	Sundial RF ² Pack 3 
For new and existing stored hot water heating systems	Install heating controls for a Hot water tank or Adding an additional timer and cylinder thermostat into an existing system already controlled by a heating only control system	Sundial RF ² Pack 4 
	Install 2 heating zones	Sundial RF ² Pack 5 
	Add heating controls into a system with a remote boiler	Sundial RF ² Pack 5 plus additional BDR91 (receiver) 

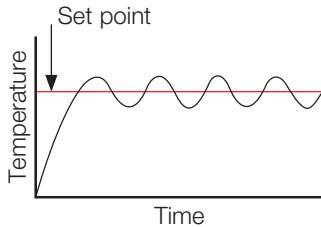
Sundial RF² Product Features

Energy saving TPI control

Time Proportional and Integral (TPI) control is a method of calculating the demand from a room thermostat, controlling the boiler so that it fires for shorter periods as the temperature approaches the set point. This can offer savings of up to 10% of energy consumption (in a single cycle steady state test).

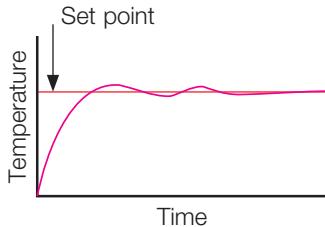
On/Off control

Temperature variation with a standard mechanical room thermostat



TPI control

Temperature variation with a TPI room thermostat



Optimisation

Optimisation allows for energy savings, by varying the start up time of the boiler, depending on the weather. It then learns how the house reacts, so that the calculation can be more accurate the next day. Optimum Start, Delayed Start and Optimum Stop are all methods of optimisation.

■ Optimum Start

To save energy: let the controls work out when to come on to suit when you want to be warm. Every day the boiler will start at the latest possible moment depending on the weather.

■ Delayed Start

Once you have programmed your earliest start time, the controls will delay the boiler firing time on warmer days, when it is possible to save energy.

■ Optimum Stop

Saves energy and money by switching off before the normal programme time whenever possible.

Line of Text display

Getting the best out of the heating system means that there are a number of important factors that have to be set within the programmer and thermostat to get the optimal performance.

To assist in system set up and assist users in day to day operations, Line of Text display gives a clear display and text feedback to ensure you are always in control.

The ST9420 programmer in Sundial RF² Packs 2 & 3 directly replaces any of the following programmers:

Supplier	Programmer
ACL - Drayton	SM2
ACL - Drayton	LP112
ACL - Drayton	LP241
ACL - Drayton	LP522
ACL - Drayton	LP722
ACL - Drayton	LP241Si
ACL - Drayton	LP522Si
ACL - Drayton	LP722Si
ACL - Drayton	Tempus 3
ACL - Drayton	Tempus 4
ACL - Drayton	Tempus 6
ACL - Drayton	Tempus 7
ACL - Drayton	LS241
ACL - Drayton	LS522
ACL - Drayton	LS722
ACL - Drayton	EPR1
ACL - Drayton	RPF7
ACL - Drayton	RP24
ACL - Drayton	EMP1
ACL - Drayton	EMP2
ACL - Drayton	UP1

Supplier	Programmer
Danfoss	CP15
Danfoss	CP75
Danfoss	CP715
Danfoss	CP715Si
Danfoss	FP15
Danfoss	FP75
Danfoss	FP715
Danfoss	FP715Si
Danfoss	MP15
Danfoss	MP75
Glowworm	Mastermind
Homexpert	THR860S
Honeywell	ST6400A
Honeywell	ST6400C
Honeywell	ST9400A
Honeywell	ST9400C
Horstmann	Centaurplus C21
Horstmann	Centaurplus C27
Horstmann	Centaurplus C121
Horstmann	Centaurplus C127

Supplier	Programmer
Iflow	Iflow PR
Landis & Gyr	RWB40
Landis & Gyr	RWB102
Landis & Gyr	RWB200
Landis & Gyr	RWB200cw
Landis & Gyr	RWB252
Landis & Gyr	RWB252cw
Landis & Gyr	RWB270
Landis & Gyr	RWB2
Landis & Gyr	RWB Mk1
Landis & Gyr	RWB2
Landis & Gyr	RWB2 Mk2
Landis & Gyr	RWB2.9
Landis & Gyr	RWB9
Landis & Gyr	RWB-XP
Landis & Staefa	RWB9
Landis & Staefa	RWB2E
Microgyr	1
Microgyr	102
Microgyr	2
Microgyr	40

Supplier	Programmer
Microgyr	200
Microgyr	200cw
Microgyr	252
Microgyr	252cw
Microgyr	270
Microgyr	9
Microgyr	XP
Potterton	Miniminder
Potterton	Miniminder E
Sankey	Sunline
Siemens	RWB29
Siemens	RWB270
Sunvic	Select 207
Thorn	Miniminder
Wickes	RWB2/6832
Wickes	RWB200.cw
Wickes	RWB252.cw
Wickes	RWB2E.cw
Wickes	RWB9.cw

This information is based on the back plate supplied with the original programmer. At the time of writing, all information is correct.

Sundial RF² System Components

ST9120C Wireless Enabled Timer



ST9420C Wireless Enabled Programmer



ST9520C Wireless Enabled 2 Zone Programmer



ST9020 Timer range features and benefits

- Large backlit display - easy to read with text feedback that gives set up assistance and programming hints (Line of Text display, see page 5).
- Optimisation - Optimum Start, Delayed Start and Optimum Stop energy saving technology (see page 5).
- Choice of 3 different built in programmes for energy saving plus 'Extra hour' facility for up to 3 hours programme extension at the touch of a button.
- Set every day differently with 7 day programming - flexible to suit the users lifestyle.
- Holiday button ensuring energy cost savings.
- Temporary or permanent override facilities offer maximum flexibility.
- Fits on industry standard back plate - no need to re-wire.
- 2 level battery backup - maintains settings in event of power failure and settings retained in memory indefinitely.
- Factory set time and date, with automatic Summer/Winter 1 hour time change.
- Service mode - set a service reminder with the option of a phone number displayed on screen and/or a service countdown.
- Enquiry mode - access temperature information from other system components.
- Suitable for mains, low voltage or potential free switching.
- The ST9520C can control two separate digital thermostats from the one control and has OpenTherm capability.
- ST9120C is the direct replacement for Honeywell ST9100 and ST6100 models.
- ST9420C is the direct replacement for Honeywell ST9400 and ST6400 Models.
- ST9520C is the direct replacement for Honeywell ST9500 models.
- All Sundial RF² products meet Building Regulations Part L standards and when replacing an existing wired timer, Part P Building Regulations do not apply.

Download a copy of our product catalogue from
www.honeywelluk.com for more technical information



DT92E Wireless Digital Room Thermostat



- Easy to set up with two way wireless communication (30 metres range) and a signal strength indicator.
- 'TPI control' offering energy saving technology to reduce heating costs.
- Simple user operation plus an ECO button giving a timed temperature boost or reduction at the touch of a button.
- 5° to 35°C set point range offers a wide range of comfort levels.
- Heating 'ON' indicator, no need to visit the timer control for a system check.
- 'Installer mode' allows the installer to set the fundamentals of the system for the customer.

CS92A Wireless Cylinder Thermostat



- Hot water temperature set at programmer.
- Pre-bound to programmer and ready to use.
- Fits on new or existing systems.
- Battery powered.

BDR91T Receiver



Optional Extra wireless receiver

Sundial RF² Pack Specifications

Product Information	Pack 1 Y9120H	Pack 2 Y9420H	Pack 3 Y9420S	Pack 4 Y9120W	Pack 5 Y9520Z	Features	Pack 1 Y9120H	Pack 2 Y9420H	Pack 3 Y9420S	Pack 4 Y9120W	Pack 5 Y9520Z
ST9120C Timer	✓			✓		Channels	1	2	2	1	2
ST9420C Programmer	✓	✓				Days	7, 5/2 or 1				
ST9520C Programmer					✓	Number of On/Offs per day	3	3	3	3	3
DT92E Thermostat	✓	✓	✓		2	Line of Text display	✓	✓	✓	✓	✓
CS92A Cylinder Thermostat	✓	✓	✓			Fits industry standard backplate	✓	✓	✓	✓	✓
Features						System rewire required	No	No	No	No	No
OpenTherm					✓	Boiler Service reminder	✓	✓	✓	✓	✓
TPI Control	✓	✓	✓	✓	✓	PIN code	✓	✓	✓	✓	✓
Optimum Start	✓	✓	✓	✓	✓	Phone number on display	✓	✓	✓	✓	✓
Delayed Start	✓	✓	✓	✓	✓	Installer setup	✓	✓	✓	✓	✓
Optimum Stop	✓	✓	✓	✓	✓	Signal strength indicator	✓	✓	✓	✓	✓
Holiday Mode	✓	✓	✓	✓	✓						
Extra Hour	✓	✓	✓	✓	✓						
Override	✓	✓	✓	✓	✓						

Individual Wireless Products

The Honeywell heating control range has a number of individual wireless products that can be easily integrated into existing heating systems. They are all simple to install and have a wealth of energy and cost saving features.

The CM920 Wireless range of Programmable Room Thermostats

The CM920 Wireless Programmable Room Thermostats are designed to provide wireless time and temperature control to heating or cooling systems in domestic and light commercial buildings.

The CM927 can provide a different heating programme for each day of the week to maximise energy efficiency. Two wire, volt free connections are ideal for use with combination boilers.

The CM921 is for use where heating needs are the same from day to day.

CM920 1/7 Day Wireless Programmable Room Thermostats



The CM927 7 Day Programmable Room Thermostat

CM920 Programmable Thermostat features and benefits

- Slim, ultra modern design.
- Wireless communication between thermostat and receiver box with 30m range.
- Energy saving TPI control.
- Optional optimum start.
- Extra large LCD display with user friendly Line of Text display (LoTTM) and optional back light.
- The CM920 has 6 temperature level changes per day.
- Automatic Summer/Winter time change.
- Auto, manual, holiday and off (frost) modes.
- The CM927 has synchronised boiler control in multi-zone systems for optimum efficiency.
- Boiler 'ON' display for easier system diagnostics.
- Memory holds user programme even when batteries are changed.
- Battery powered (with low-power indicator).
- Volt free connections.

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CM Range Specifications

Feature	CM927	CM921	CM727	CM721	Feature	CM927	CM921	CM727	CM721
Suitable for systems with									
Combi boilers	✓	✓	✓	✓	Automatic summer/winter time change	✓	✓	✓	✓
Regular boilers	✓	✓	✓	✓	Holiday mode	✓	✓	✓	
System boilers	✓	✓	✓	✓	Party function (timed override)	✓			
Multiple zones	✓	✓	✓	✓	Day off function	✓			
User interface									
Line of Text display	✓	✓			Optimum start	✓	✓	✓	
OK button	✓	✓	✓	✓	TPI control	✓	✓	✓	✓
Large display			✓	✓	Service reminder		✓	✓	
Extra large display	✓	✓			Control output				
Back light	✓	✓			Relay output	✓	✓	✓	✓
Programme					Relay type	SPDT	SPDT	SPDT	SPDT
Number of days	7	1	7	1	Relay load	5(3)A	5(3)A	5(3)A	5(3)A
Number of temperature changes/day	6	6	4	4	Wireless on/off	✓	✓	✓	✓
Time setting resolution min	1	1	1	1					
Temperature setting resolution °C	0.5	0.5	0.5	0.5					

CM720 1/7 Day Wireless Programmable range of Room Thermostats

The CM720 range of programmable room thermostats is designed for social housing needs and provides automatic time and temperature control to heat domestic premises with additional functionality for landlords.

The CM720 range has a scheduled maintenance alert, fault diagnostic mode and automatic Summer/Winter time change to assist in maintenance. Two wire, volt free connections are ideal for use with combination boilers.



The CM727 7 Day Programmable Room Thermostat

CM720 Programmable Thermostat features and benefits

- Slim, ultra modern design.
- Wireless communication between thermostat and receiver box with 30m range.
- Service interval warning.
- Energy saving TPI control (see page 5).
- Optional optimum start (see page 5).
- The CM720 has 4 temperature level changes per day.
- Automatic Summer/Winter time change.
- Auto, manual, holiday and off (frost) modes.
- The CM727 has synchronised boiler control in multi-zone systems for optimum efficiency.
- Boiler 'ON' display for easier system diagnostics.
- Memory holds user programme even when batteries are changed.
- Battery powered (with low-power indicator).
- Volt free connections.

DT92E Wireless Digital Room Thermostat



- Easy to set up with two way wireless communication (30m range) and a signal strength indicator.
- 'TPI control' offering energy saving technology to reduce heating costs (see page 5).
- Simple user operation plus an eco button giving a timed temperature reduction at the touch of a button.
- 5 to 35°C set point range offers a wide range of comfort levels.
- Installer mode allows expert set up to match the heating system.
- Can be wall mounted or free standing to ensure best possible positioning.

Y6630D Wireless Analogue Room Thermostat

The Y6630D is a battery powered Wireless Room Thermostat and mains powered HC60NG Receiver Box, to give intelligent room temperature control of a single zone.



- Energy saving TPI control (see page 5).
- Simple dial for temperature setting, no programming required.
- LED indication of battery status and RF signal.
- Solid state temperature sensing.
- 'ON' LED indication.
- Restrict temperature setting range.
- Wireless thermostat and receiver with Radio Frequency (RF) communication check for easier diagnostics.
- Battery powered (with low power indicator).
- Volt free connections.

evohome wireless multi zoning system

Introducing evohome

evohome is a wireless multi zoning system centered on the evotouch eight zone controller. It allows independent automatic temperature control of up to eight heating zones and one hot water zone. evotouch will control your heating system efficiently to provide maximum comfort and energy savings.

The evotouch is controlled via a large touch-screen display, with an intuitive user interface for easy operation.

The evotouch supports a wide range of applications, from simple single zone boiler control to multi-zone underfloor heating and radiator control using our proven Radio Frequency (RF) technology for communication with the peripheral devices.

Application

- Ideal for any domestic or small commercial property that requires zoning. evohome is suitable for both radiator and underfloor heating. It is compatible with standard or combi boilers using on/off or volt free control. Suitable for new and existing systems.
- For larger domestic or commercial properties (doctor surgeries, offices, schools etc.), link up to four evotouches together to control up to 32 zones.

Installation

- evohome is designed for ease of installation and maintenance. Products are pre-bound and allow wireless signal strength and binding tests.

Flexible

- Control the heating from one central point, or in each room. Alter the programme to suit your lifestyle with special day and holiday features.

evohome Sundial Pack for heating and stored hot water systems



Application

- The evohome Sundial Pack fits directly on to systems with heating and stored hot water. It contains an evotouch controller, 2 BDR91 receivers and a CS92 wireless cylinder thermostat. Suitable for new and existing systems.
- evohome is designed to convert a system with single zone pipework into a multi zone system. Resulting in optimal comfort combined with maximum energy saving.
- Ideal for domestic or small commercial properties that require zoning. Suitable for radiator circuits. Compatible with standard or combi boilers.

Options

- Add extra control zones with wireless radiator controllers (HR80UK).
- Additional receivers can be added to the system to suit the type of Sundial plan (and number of zone valves).
- For very large properties, connect up to four evotouches to a BDR91 receiver to control up to 32 zones. Add an unlimited number of HR80UK thermostats to control them. Ideal for larger domestic or commercial properties such as doctor surgeries, offices, schools or blocks of flats.
- Can be upgraded for underfloor heating.

evotouch Thermostat Pack for heating and combi boiler systems



Application

- The evotouch Thermostat Pack fits directly on to any heating only system or system with combi boiler. It contains an evotouch controller and a BDR91 receiver. Suitable for new and existing systems.
- Designed to convert a system with single zone pipework into a multi zone system. Resulting in optimal comfort combined with maximum energy saving.
- Ideal for domestic or small commercial properties that require zoning. Suitable for radiator circuits. Compatible with standard or combi boilers.

Options

- Add extra control zones with wireless radiator controllers (HR80UK).
- For very large properties, link up to four evotouches together to control up to 32 zones. Add an unlimited number of HR80UK thermostats to control them. Ideal for larger domestic or commercial properties such as doctor surgeries, offices, schools or blocks of flats.
- Use the evohome Sundial Pack to control systems with stored hot water.
- Can be upgraded for underfloor heating.

evohome Zoning Pack for adding zones



**4 wireless radiator thermostats
HR80UK**

Application

- The evohome Zoning Pack contains four HR80UK wireless radiator thermostats. It is designed to provide individual radiator control with multi point boiler interlock in heating systems where zoning is required.
- The HR80UK can be manually adjusted to temporarily override the set temperature from the evotouch controller. This will create a demand and fire the boiler, until the next switching time at the evotouch controller.
- evotouch provides the setpoint via the wireless connection. The internal sensor of the HR80UK measures the local air temperature, compares this with the setpoint and adjusts the valve until the desired temperature is attained.

Options

- For very large properties, connect up to four evotouches to a BDR91 receiver to control up to 32 zones. Add an unlimited number of HR80UK thermostats to control them. Ideal for larger domestic or commercial properties such as doctor surgeries, offices, schools or blocks of flats.
- If the HR80UK detects a sudden drop in temperature (eg if a window or door is opened) then the valve will be moved to a closed position to save energy. Normal operation will be resumed automatically once it recognises the window or door has closed.

evohome Underfloor heating



**evohome Sundial Pack
ATP921H1004**

**Digital room unit
DTS92E**

**Underfloor heating controller
HCC80R**

Application

- The Honeywell HCC80R underfloor heating controller is designed specifically for the task and contains algorithms to ensure that optimum control of your system is achieved.
- The controller is supplied to control 5 zones and with the addition of the extension module (HCS80) this can be

extended to 8 zones. It can support up to 3 thermal actuators per zone with connections provided in zone 1.

- The system pump/boiler/valve may be either hard wired or controlled without wires by a BDR91 receiver.

evohome products

<p>evotouch Thermostat Pack ATP921G1080 This pack contains an evotouch controller, BDR91 receiver and evotouch stand. Accessory: ATF300 Wall support with power supply.</p>	<p>evohome Sundial Pack ATP921H1004 The pack contains an evotouch controller, 2 BDR91 receivers, a CS92 wireless cylinder thermostat and evotouch stand. Accessory: ATF300 Wall support with power supply.</p>	<p>evohome Zoning Pack HR804UK The pack contains 4 HR80UK wireless radiator thermostats.</p>	<p>evohome Cover Pack ATF400 Pack of 2 covers, in polished black and aluminium grey, for the evotouch thermostat.</p>	<p>Wireless Digital Room Thermostat DTS92E1020 Wireless digital room thermostat with ECO button for extra energy savings.</p>
		<p>Receiver BDR91A1000 Receiver with change-over contact 5 A, transceiver 868 MHz.</p>		
		<p>Underfloor heating controller HCC80R Underfloor heating controller HCC80R for up to 5 zones. Pump control. Wireless boiler control, optionally via BDR91. Each port can control up to 3 thermal motors. Transceiver 868 MHz. Internal antenna and boiler feedback relay.</p>		
			<p>Extension module HCS80 3 additional zones for HCE80 / HCC80, upgrade from 5 to 8 zones.</p>	
				<p>Thermoelectric Actuator MT4 The MT4 thermoelectric actuator allows precise and reliable valve operation for room and zone applications. Suitable for radiator and underfloor heating.</p>

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