ENGINEERING
TOMORROW

Heating, comfort and reliable solutions

Product Selection **Guide** 2023

installer.danfoss.co.uk

It's all about **energy** efficiency

A boiler in a house with individual room temperature controls will be in condensing mode for over 80% of the time it is operating, while the same boiler without temperature controls would be in condensing mode for as little as 5% of its operation.

Source: Tests by Salford University

Customer Benefits from replacing TRV's and controls

- ✓ **Better comfort in every room**
- ✓ **Energy savings**
- ✓ **Replacing controls and TRV's when investing in a new boiler will improve the boiler efficiency by up to 15%.**

TPOne & **TP5001** Range
Programmable Room Thermostat

TPOne™

TPOne delivers new levels of user friendly interaction, the large backlit display uses easy to read icons and text information to provide feedback on status and settings to the installer and user. Users can choose 24 hour, 5/2 day or 7 day programming with the option of 1, 2 or 3 heating periods. With models including, Mains, Battery, RF and WiFi variants, TPOne offers a solution for almost every application

TP5001™

The TP5001 adds full heating schedule control to the features offered by the RET variants. With either 5/2 Day or 24 Hour scheduling the user can set two heating periods ensuring that the heating is either off or at a reduced temperature when away from home or asleep.

	087N7852 TPOne-M	**087N7851** TPOne-B	**087N7858** TPOne-RF	**087N7856** TPOne-S	**087N7935** TP5001-M	**087N7931** TP5001B	**087N7936** TP5001-RF
LCD display with push buttons	•	•	•	•	•	•	•
Mains	•			•	•		
Battery		•	•			•	•
RF			•				•
On/off load compensation	•	•	•	•	•	•	•
Open Therm							
WiFi				•			
24 Hour	•	•	•	•	•	•	•
5/2 Day	•	•	•	•	•	•	•
7 Day	•	•	•	•			
1 Channel		•	•		•	•	•
2 Channel	•			•			
Holiday function	•	•	•	•	•	•	•
Clear text display	•	•	•	•			
Click & Save	•	•	•	•			
Service Interval Timer	•	•	•	•	•	•	•

RET Range
Electronic Room Thermostat

WARRANTY 5 YEARS

RET1001

The RET1001 electronic room thermostat combines modern design with efficient heating control. Featuring a temperature adjustment dial with frost protect setting and LEDs to signal both power and heat demand, you can be assured of a simple, easy to use thermostat that meets the latest Building Regulations.

WARRANTY 5 YEARS

RET2001

RET2001 is an electronic room thermostat featuring a large, backlit LCD Display. The temperature can be selected via the ring that circles the display. Similar to the dial version, a frost protection feature is included as well as a holiday mode with set-back temperature for energy saving whilst away.

	087N6461 RET1001-M	**087N6476** RET2001-M	**087N6471** RET2001B	**087N6477** RET2001-RF	**087N6478** RET2001O-T
LED Indicator	•				
LCD display with push buttons		•	•	•	•
Mains	•	•			
Battery			•	•	
RF				•	
On/off load compensation	•	•	•	•	
Open Therm					•
Temperature locking and limiting	•	•	•	•	•

WARRANTY 5 YEARS

RX1-S

Employing secure digital radio communication, the Danfoss RX1-S one channel receiver communicates with a unit mounted up to 30M away. With its own unique digital identity code learnt by the receiver during commissioning, this thermostat is ideal for zoning applications.

Time Switch and **Programmers**

WARRANTY 5 YEARS

The TS710 and FP720 are the latest generation of heating timers. Both feature a large, easy to read display with a straight-forward intuitive layout.
Current day, time and on/off period is shown in the large top section along with icons showing the status of the output channels. Both timers offer 1, 2 or 3 heating periods, whilst the FP720 also offers an additional channel for either time control of a hot water cylinder or 2nd heating zone.

	087N7884 TS710	**087N7885** FP720
LCD display with push buttons	•	•
Mains	•	•
24 Hour	•	•
5/2 Day	•	•
7 Day	•	•
1 Channel	•	
2 Channel		•
Service Interval Timer	•	•
Industry standard back plate	•	•

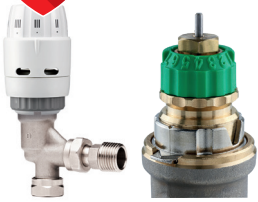
Motorised Control Valves

WARRANTY 2 YEARS

Motorised Valves work in conjunction with time controls and thermostats to control the flow of water in domestic central heating systems. Designed and built for long term operation Danfoss 'H-series' valves are available in 2-port and 3-port versions in a wide range of sizes for copper pipework. Actuators for mid-position, diverter and 2-port on/off applications complete the range. Valve bodies and actuators may be purchased separately or in convenient sets.

087N6613	HS3 - 22mm 3 port mid-position valve complete with actuator
087N6614	HS3 - 22mm 3 port diverter valve complete with actuator
087N6609	HP22 - 22mm 2 port valve complete with HPA2 actuator
087N6587	HSA3 - 3 port mid-position valve actuator only
087N6579	HPA2 - 2 port valve actuator only

Danfoss RAS-B²



UNIQUE
2-in-1
Optimal temperature control & automatic hydronic balancing built into one single product

The innovative design of the Danfoss RAS-B² features a differential pressure controller that ensures all radiators throughout the home get the heat they need throughout the year regardless of whether it is spring, autumn or winter.

RAS-B²		
	013G7660	RAS-B² Dynamic Combi Pack, 15mm
	013G7661	RAS-B² Dynamic Combi Pack, 10mm
	013G7662	RAS-B² Radiator Pack, 15mm
	013G7663	RAS-B² Radiator Pack, 10mm
	013G7664	RAS-C², RA-DV, RLV-D, with 10 mm push-fit fitting, drain off
	013G7665	RAS-C², RA-DV, RLV-D, with 15 mm push-fit fitting, drain off
	013G5002	Manual Cap for TRV
	003G0105	Drain-off tailpiece
	013G6270	10 mm push-fit elbow
	013G0253	8 mm reducer
	013G0254	10 mm reducer

*additional accessories available on enquiry

Danfoss RAS-C² and RAS-D²

UNIQUE
bi-directional valve
Our valves feature the unique flow selectable adjuster helping ensure water flows through the valve in the right direction - the perfect solution to water hammer.

Ras-C²

The RAS-C² sensor is packaged together with the innovative flow selectable RA-FS bi-directional valve body which can be mounted either vertically or horizontally in flow or return. If water hammer is experienced a patented flow selection device within the valve can be turned to reverse the water direction inside the valve without the need to drain down the system. A quick and easy solution to an otherwise expensive problem. The valves have a ½" BSP (R½") tail piece connection to the radiator and are available with15mm, 10mm or 8mm compression fitting or an elbow with 15mm, 10mm push-fit fitting to connect the valve to the pipe work

RAS-C²	
013G6050	RAS-C² Combi Pack - 15mm
013G6055	RAS-C² Combi Pack - 10mm
013G6058	RAS-C² Combi Pack - 8mm
013G6005	RAS-C²+L/S Radiator Pack - 15mm
013G6006	RAS-C²+L/S Radiator Pack - 10mm
013G6007	RAS-C²+LS Radiator Pack - 10mm Push-fit fitting
013G6008	RAS-C²+L/S Radiator Pack - 8mm
013G6009	RAS-C²+L/S + drain-off - 10mm Push-fit fitting
013G6025	RAS-C²+L/S + drain-off - 15mm Push-fit fitting

Ras-D²

Available in white/chrome or all chrome the elegant RAS-D² radiator thermostats are ideal for designer radiators or towel rails. The valve bodies are reversible and bi-directional and include a flow-selectable feature to ensure trouble free installation without any risk of water hammer.

RAS-D²	
013G6012	RAS-D² TRV Only 15/10/8mm Chrome Angled
013G6013	RAS-D² TRV Only 15/10/8mm White/Chrome Angled
013G6014	RAS-D² TRV Only 15/10/8mm Chrome Straight
013G6015	RAS-D² TRV Only 15/10/8mm White/Chrome Straight
013G6016	RAS-D² TRV & L/S Valve 15/10/8mm Chrome Angled
013G6017	RAS-D² TRV & L/S Valve 15/10/8mm White Angled
013G6018	RAS-D² TRV & L/S Valve 15/10/8mm Chrome Straight
013G6019	RAS-D² TRV & L/S Valve 15/10/8mm White Straight

Compatibility

Model	Replacement	Code number
Programmable Room Thermostats – RF		
New wallplate needed Mark existing wires with current wallplate numbers and reconnect according to below. * Connections shown are for RF Receiver		
TP5000-RF Si	**TP5001-RF-V2**	**087N7936**
TP5000A-RF Si	**TPOne-RF-V2**	**087N7858**
Room Thermostats – Battery & Mains		
New wallplate needed Mark existing wires with current wallplate numbers and reconnect according to below.		
RET230-P RET1000-M RET1000-MS	**RET1001-M-V2**	**087N6461**
RET2000-M RET2000-MS FMT230-D	**RET2001-M-V2**	**087N6476**
RET1000-B RET2000-B	**RET2001-B**	**087N6471**
Room Thermostats – RF		
New wallplate needed Mark existing wires with current wallplate numbers and reconnect according to below. * Connections shown are for RF Receiver		
RET2000B-RF	**RET2001-RF-V2**	**087N6477**
Room Thermostats – Opentherm		
New wallplate needed Mark existing wires with current wallplate numbers and reconnect according to below.		
ORT-01 ORT-10 RET2000-OT	**RET2001-OT-V2**	**087N6478**

Wallplate connections & functions

	Neutral	Live	COM	ON	OFF			
	N*	L*	2	3	4		S1	S2
Connections on current wallplate, mark wires and reconnect as above, link as instructed.								
	N*	L*	2*	3*	4*		-	-
							S1	S2

	Neutral	Live	Common	OFF	ON			
	N	L	COM	NC	NO			
Connections on current wallplate, mark wires and reconnect as above, link as instructed.								
	N	L	2	3	1			
			1	3	2			
			1		2			
				3				
			COM	NC	NO			
	-	-	1	3	2			

	Neutral	Live	COM	ON	OFF			
	N*	L*	2	3	4			
Connections on current wallplate, mark wires and reconnect as above, link as instructed.								
	N*	L*	2*	3*	4*			

		Opentherm Connections		Set Back Connections (ORT-10)				
		A	B	1	2			
Connections on current wallplate, mark wires and reconnect as above, link as instructed.								
		A	B	-	-			
				3	4			
				1	2			

Model	Replacement	Code number
Time Switches *** New wallplate needed** Mark existing wires with current wallplate numbers and reconnect according to below.		
TS715 Si 103E7* SET 1E*	**TS710-V2**	**087N7884**
Programmers *** New wallplate needed** Mark existing wires with current wallplate numbers and reconnect according to below.		
FP715 Si CP715 Si FP975 102E7* SET 2E* SET 3E*	**FP720-V2**	**087N7885**
Programmable Room Thermostats **New wallplate needed** Mark existing wires with current wallplate numbers and reconnect according to below		
TP5000 Si TP7001	**TP5001-B**	**087N7931**
Programmable Room Thermostats **New wallplate needed** Mark existing wires with current wallplate numbers and reconnect according to below.		
TP5000-M Si TP7001-M	**TP5001-M-V2**	**087N7935**
TP5000-A Si TP7001-A	**TPOne-B**	**087N7851**
Programmable Room Thermostats **New wallplate needed** Mark existing wires with current wallplate numbers and reconnect according to below.		
TP5000-MA Si TP7001-MA TP9000 Si	**TPOne-M**	**087N7852**

Wallplate connections & functions

	Neutral	Live	Common	OFF		ON		
	N	L	1	2	3	4		
Connections on current wallplate, mark wires and reconnect as above, link as instructed.								
	N	L	1	2		4		
	5	6	3			1		
	N	L	5	6		4		

	Neutral	Live	DHW OFF	HTG OFF	HTG/DHW	CH ON		
	N	L	1	2	3	4		
Connections on current wallplate, mark wires and reconnect as above, link as instructed.								
	N	L	1	2	3	4		
			3	6				
	5	6	-	-	1	2		
			-	-				
	N	L	3	6		4		

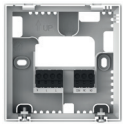
			OFF	COM	ON			
			1	2	3			
Connections on current wallplate, mark wires and reconnect as above, link as instructed.								
			1	2	3			
			5	6	7			

	Neutral	Live	OFF	COM	ON			
	N	L	1	2	3			
Connections on current wallplate, mark wires and reconnect as above, link as instructed.								
	B/N	C/L	1	2	3			
	10	9	8	6	7			
	-	-	1	2	3		S1/D	S2/E
	-		5	6	7		2	3

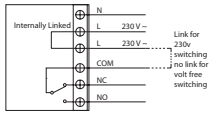
	DHW ON	DHW OFF	Neutral	Live	Heating (Volt Free)	Heating (Volt Free)			
	NC2	NO2	N	L	COM	NO1		S1	S2
Connections on current wallplate, mark wires and reconnect as above, link as instructed.									
	-	-	N	L	2	3		S1/D	S1/E
			10	9	6	7			
	3	1	N	L	Link to L	4		5	6

Wiring diagrams and wallplate ***information***

RET1001-M-V2

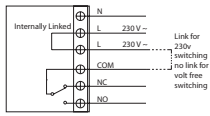


RET1001-M-V2



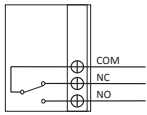
RET2001-V2

RET2001-M-V2 / TP5001-M-V2

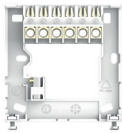


TP5001 series

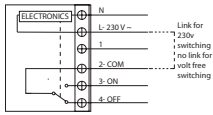
RET2001-B / TP5001-B



RX1-S-V2

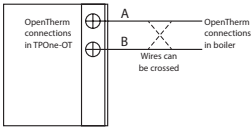


RX1-S-V2

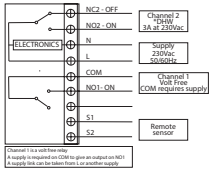


TPOne™ series

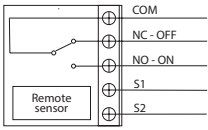
TPOne-OT



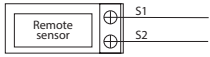
TPOne-M



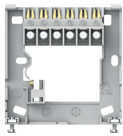
TPOne-B



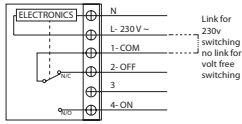
TPOne-RF



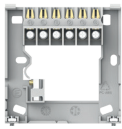
TS710-V2



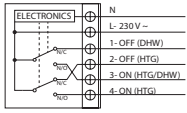
TS710-V2



FP720-V2



FP720-V2



Competitor compatibility guide

	Danfoss	Drayton
Hardwired	RET1001M (*page 4*)	RTS1
	RET2001-M (*page 4*)	Digistat+1
	RET2001-B (*page 4*)	Digistat+
	TP5001-M (*page 4*)	Digistat 2290M
	TPOne-B (*page 3*)	Digistat 2290B
	RET2001-OT (*page 4*)	
Wireless room thermostat	RET2001-RF(*page 4*)	Digistat+RF
		Digistat+1RF
Programmable 5/2 day room thermostat	TP5001-B (*page 3*)	Digistat 2290B
	TPOne-M (*page 3*)	Digistat 2290M
Wireless programmable room thermostat pack	TPOne-RF (*page 3*)	Digistat RF902
	TP5001-RF (*page 3*)	Digistat RF902
Full programmer 7day 5/2 day & 24h	FP720 (*page 5*)	LP241
		LP522
		LP722
Full timeswitch 7day 5/2 day & 24h	TS710 (*page 5*)	LP711
		LP111
Smart programmable	TPOne-S (*page 3*)	Wiser Thermostat Kit 1

See the **Installer Life on Tour** dates and locations here

Honeywell	EPH	ESI
T6360B1036	CM3	ESRTE2
THR840DEU	CDT2	ESRTD3
DT90E1012	CRT2	N/A
T3 Range	CP4M	ESRTP5
T4 Range	CP4B	N/A
T4 Range		
Y87RF2024	COMBIPACK3	ESRTERFW
DT92E		
T3 Range	CP4B	ESRTP4+
T4 Range	CP4M	
T4 Range	CP4	ESRTP4RF+
T3 Range	CP4	
ST9400S1001	R27	ES2247B
ST94001002		
ST9400C1000		
ST9500C1015		
ST9100S1007	R17	ES1247B
ST9100C1006		
T6	CP4I	ESRTP6WHW
Evo home		

Danfoss Installer **App**

Your personal toolbox

Danfoss Installer App has been developed to provide assistance to installers working on both residential and commercial projects. With constant updates, you can always be sure the information provided will be accurate and up to date.
Use the mobile app to access service tools details and reduce the complexity of your work. All the information and tools you need carried in your pocket.

Make your work easier.
Get the Danfoss Installer app now.

Download on the App Store

GET IT ON Google Play

Danfoss DNA

Danfoss developed its first radiator thermostat prototype in 1943, and the first commercial model was launched in 1952. The selling price was equivalent to a weekly salary for an industrial worker. Sales did not take off until Danfoss was able to lower the price significantly in the 1960s. Today, Danfoss Thermostats have become a household brand and they are continuously being improved. The latest versions are fully connected and customers can control them from their smart phones. Danfoss has produced almost half a billion bellows, most of these have gone into radiator thermostats.

AF428962669806en-GB0304
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