Honeywell Home Thermostats, Timers



T4/T4R/T4M

Thermostats, Timers

APPLICATION

The T4, T4M and T4R thermostats are designed to provide automatic time and temperature control of heating systems in homes and apartments.

The T4 it's compatible with 24-230 V on/off appliances such as gas boilers, combi-boilers and heat pump.

Also works with zone valve applications but not with electric heating (240 V).

The T4M and T4R versions support also OpenTherm® appliances.

The T4 and T4M are for wired on the wall installations and the T4R for wireless installations. T4R exist of a thermostat and a Receiver box.

The solution is designed with the installer in mind and includes a Receiver module with mounting options for directly on the wall or on a wall box.

Wiring can be from below or from the back by lifting the terminal platform, which makes installation quick and easy.

The thermostat has a large and clear fix segment display with backlight, simple programming philosophy all to make it easier to install and very user friendly.

The T4 product line is ideal for consumers who want to control their comfort remotely with a modern design, simple to program and easy to use product.

SPECIAL FEATURES

- Minimalistic and modern design makes it easy to blend in any type of homes
- Table stand or wall mounted thermostat options to fit new and replacement installations
- Backlight for easier viewing in all light conditions
- Factory programmed daily, weekly or 5+2 default heating schedule
- Schedule options with 4 or 6 independent set-points to suit comfort needs
- Set-point temperature always displayed
- OFF position has an integral frost protection setting at minimum 5 °C so that pipes in the house will never freeze
- Alert messages to assist in fault finding
- Timed override function allows to hold a targeted setpoint for 1 or 2 hours
- Away mode allows to reduce the temperature for a period of 1 to 99 days
- Automatic time clock adjustment for "Daylight Saving Time"



- Receiver box with clear LED indication and override button
- On/Off or OpenTherm® (T4R/T4M) compatible control
- A flip up wiring platform for easy wiring
- User menu allows extra functions to be set at the discretion of the user:
 - Heating schedule
 - Date and time setting
 - Optimisation
 - Lock function
 - OpenTherm® alerts (T4M only)
- Installer menu allows extra functions to be set at the discretion of the installer to match the homeowner's applications and needs
 - Language selection
 - Cycle rate
 - Upper/Lower set point limit adjustment
 - Minimum ON time
 - Daily, weekly or 5+2 schedule option
 - 4 or 6 periods a day
 - Wired remote sensor
 - Fail safe mode
 - Clock format
 - Daylight saving time change (DST)
 - Temperature display offset
 - Factory reset
 - Binding (T4R only)

TECHNICAL DATA

T4/T4M/T4R Thermostat

Operating temperatures		
Room temperature	From 0 °C to 50 °C	
display range:		
Temperature Setting		
range:		
Program:	5 to 35 °C	
OFF:	5 °C	
Specifications		
Control form:	Fuzzy Logic	
Time display:	24 hour or 12 hour AM/PM forma	
Time keeping accuracy:	+/-10 mins per year	
Program:	5+2, weekly or daily schedule with	
	4 or 6 daily time and temperature	
	level changes	
Time setting resolution:	Program - 15 minute steps	
Sensing element:	10k (@25 °C) NTC thermistor	
Power:	Powered by 2 x AA batteries	
Wiring:	T4 (wired) and T4M (Opentherm)	
	terminal block capable of	
	accepting wired up to 1.5 mm ²	

RF communication

Specifications	
RF operation band:	ISM (868.0-868.6) MHz, 1 % duty
	cycle
Maximum power:	25 mW
Protocol:	Encrypted

METHOD OF OPERATION

Opentherm®

By connecting the T4M to an OpenTherm® appliance various specific data can be viewed. The data is depending on what the appliance is providing.

Heat range

The normal lower temperature limit of $5\,^{\circ}\text{C}$ can be increased up to $21\,^{\circ}\text{C}$ to protect the inhabitants from cold.

Useful if the inhabitants include the elderly, children or disabled. The normal upper temperature limit of 37 $^{\circ}$ C can be reduced down to 21 $^{\circ}$ C to save the homeowner energy. Useful if the homeowner rents to tenants.

Schedule options

The thermostat has the 5+2 by default, however it can be change to 7 days for different schedule each day of the week or 1 day for having the same schedule during the week.

External temperature sensor (only for wired versions)

An external temperature sensor can be fitted, allowing the thermostat to control the temperature from another room or space, where it is inconvenient to locate the thermostat.

It will read the remote sensor every 1 minute. The sensor can be connected up to 50 meters from the unit. Useful for commercial premises where the public may tamper with the product.

Communication range:	30 m in residential building	
	environment	
Communication	short, high rate transmissions to	
technology:	minimise air time and avoid	
	collisions	
Receiver class:	RX Cat 2	
R.E.D.	(ETSI EN300 220-1 version 1.3.1)	

Receiver box

Specifications		
Power:	Fuzzy Logic	
Electrical rating:	From 0 °C to 50 °C	
Cycle rate:	Selectable by application	
Wiring:	Terminal block capable of	
	accepting wires up to 1.5 mm ²	
Wire access:	From back via large wall box	
	opening.	
	From bottom with cable clamps.	
	Mains wiring - left	
	Low voltage wiring - right	
IP class:	30	

Environmental and standards

Specifications	
EMC:	2014/30/EU
LVD:	2014/35/EU
R&TTE:	1995/5/EC
Wire access:	From back via large wall box
	opening.
ErP:	Class V (+3 %), (EU) 811/2013

Optimisation (optimum start, optimum stop and delayed start)

Optimum Start: learns how long it takes your system to reach the temperature you want. It turns on the heating system earlier to make sure it's comfortable at the scheduled time.

Optimum Stop: Saves energy and money by switching off a little bit earlier than the normal programmed time. If the home is up to temperature, it will not notice the effect on the temperature, but will show a difference in the fuel bill.

Delayed start: Saves energy by slightly delaying the start of heating depending on the difference between the scheduled temperature and the actual room temperature.

Failsafe

When the temperature sensor fails (T4, T4M) or the radio communication between the Thermostat and the Receiver box is lost the device will cycle the demand 20 % On/80 % Off.

TRANSPORTATION AND STORAGE

Keep parts in their original packaging and unpack them shortly before use.

The following parameters apply during transportation and storage:

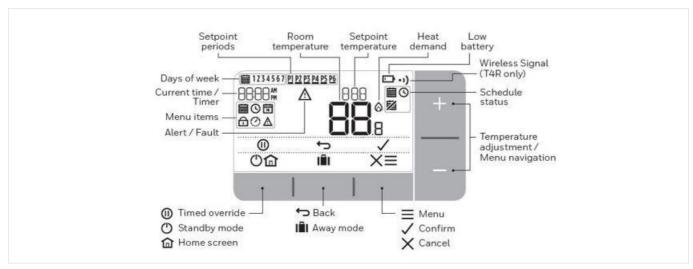
Parameter	Value
Min. ambient temperature:	0 °C
Max. ambient temperature:	40 °C
Shipping and storage	-20 °C to 55 °C
temperature:	

Parameter	Value
Min. ambient relative humidity:	10 % *
Max. ambient relative humidity:	90 % *

^{*}non condensing

TECHNICAL CHARACTERISTICS

Thermostat display/Button layout

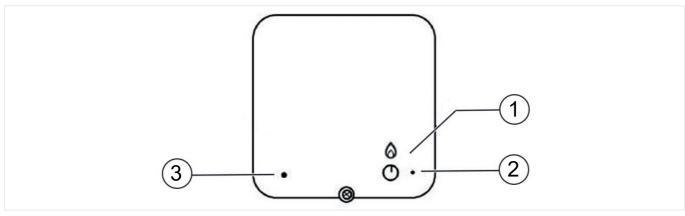


Reference to the icons:

Status icons

- **Schedule On:** Programmed schedule is active.
- **Schedule Override:** Active until next scheduled period starts or the timed override duration has ended.
- Schedule Off: Programmed schedule is turned off.
- **Low Battery:** Power has reached approximately 10 % flashes when critically low (see Changing the Batteries).
- Wireless Signal: Thermostat (T4R only) is connected to the Receiver Box.

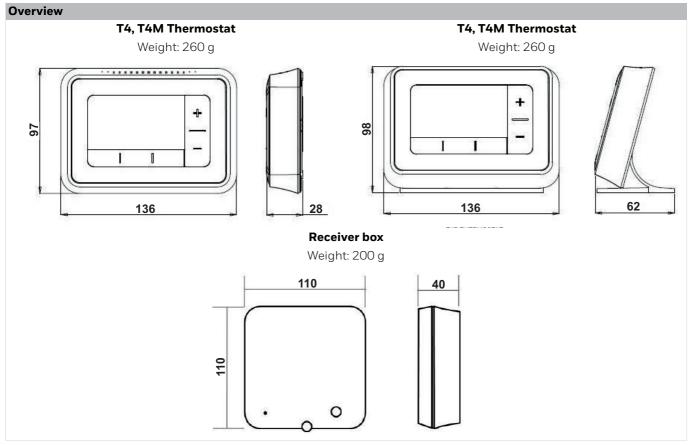
Receiver box interface



- 1 Status LED
 - Communication with thermostat
 - Binding mode
- 2 Manual override

- 3 Reset
 - Delete binding

DIMENSIONS



Note: All dimensions in mm unless stated otherwise.

ORDERING INFORMATION

Options

Product	OSNo.	Description	EAN Code
T4 Thermostat(wired)	T4H110A1023	Every package includes 3 languages: German, Dutch and French.	5025121380935
T4M Thermostat(wired) for OpenTherm-boiler	T4H310A3032		5025121381208
T4R Thermostat(wireless)	Y4H910RF4004		5025121380928

For more information

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