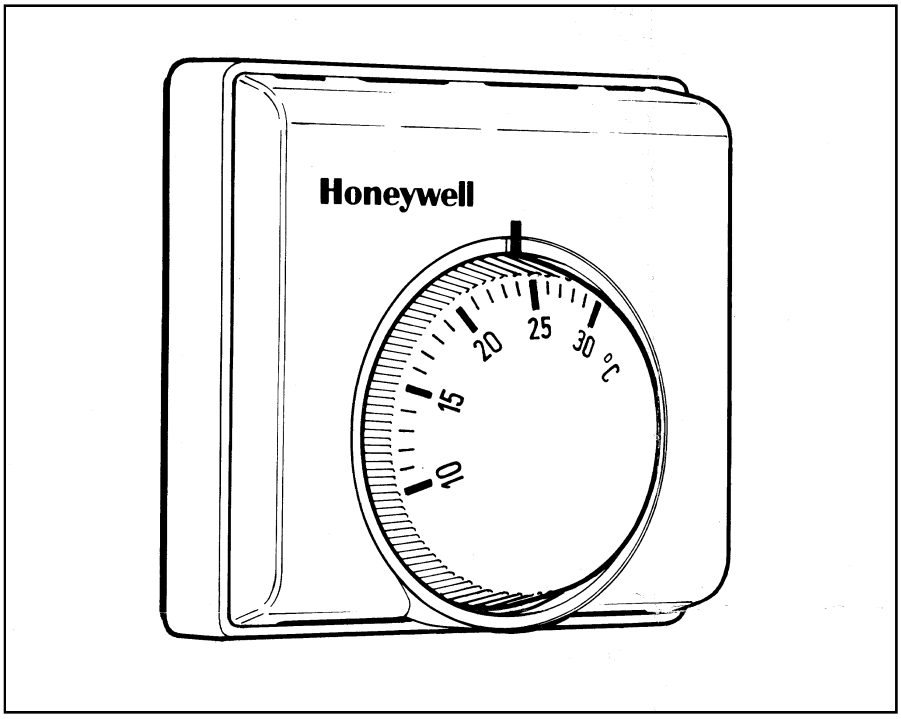
Honeywell

T4360/T6360

LINE VOLTAGE ROOM THERMOSTATS

PRODUCT SPECIFICATION SHEET



The T4360/T6360 range of thermostats are designed to provide automatic ON/OFF control for gas valves, circulation pumps, relays and zone valves in all heating, cooling, or heating/cooling installations where single or changeover switching up to 10 A (resistive load) or 3 A (inductive load) is required.

In addition a 16 A (resistive load) variant is available for direct switching of high current carrying loads.

Nine models of the thermostat are available, in a wide range of feature combinations.

FEATURES

- **Dual diaphragm sensing element ensures close temperature control for all loads and applications**
- **Attractive modern styling makes this thermostat ideal for locating in the living space**
- **Available with or without heat anticipation to suit the application**
- **The T6360 has changeover contacts for use in cooling or heating/cooling applications**
- **Versions with switches for positive-off selection, or summer/ winter (heat/cool) changeover operation**
- **Mounts directly onto wall or conduit box**
- **Improved easy-to-wire terminals with built-in conductor clamps to ensure wiring is retained securely**
- **Double insulated. No earth wire required for operation. Earth "parking" terminal available on selected models**
- **Optional extras available are:**
  - **range stops F42006646-001 (pack of 20 – enough for 10 thermostats)**
  - **tamperproof cover F42007110-001 (opaque)**

SPECIFICATIONS

MODEL	HEAT ANTICIPATOR	CHANGEOVER CONTACTS	INDICATOR LAMP	SUMMER/ WINTER SWITCH	ON/OFF SWITCH	16 AMP RATING	FROST PROTECT FUNCTION	TAMPER-PROOF COVER	NIGHT SETBACK HEATER	SPECIAL ANTICIPATOR
T4360A							●	●		
T4360B			●			●				
T4360C	*		*		●				*	
T4360D			*	●				*		
T4360E	●								●	
T4360F										□
T6360A		●	*							
T6360B	●	●	*					*		
T6360C		●	*							

* Versions available with or without this feature
□ For thermal actuator control

Switch type : T4360 S.P.S.T. (Heating)
T6360 S.P.D.T. (Heating/Cooling)

Electrical ratings : 230Vac, +/-10%, 50…60Hz

T6360A,B,C 10(3) A Terminal 3 (Heat), 6(2) A Terminal 4 (Cool)
T4360A,C,E 10(3) A Terminal 3 (Heating)
T4360B 16 A Terminal 3 (Heating)
T4360D 6(2) A Terminal 2 (Heating or Cooling)
T4360F 2(2) A Terminal 3 (Heating)
Manual switches on T4360C,D and T6360C rated 10(3) A

Temperature setting range : 10 to 30ºC
(0 to 20ºC - T4360A only)

Terminals : Terminals sized to accept up to 2 x single or multi-stranded wires from 1.0 mm^2 to 2.5 mm^2.
16 A version will accept one 4.0 mm^2 wire per terminal.
Lamp terminals suitable for only one wire per terminal up to 2.5 mm^2max.
Each terminal has a conductor clamp for securing the wiring conductor and is suitable for both blade and cross-head screwdrivers.
Earth "parking" terminal to comply with IEC guidelines.

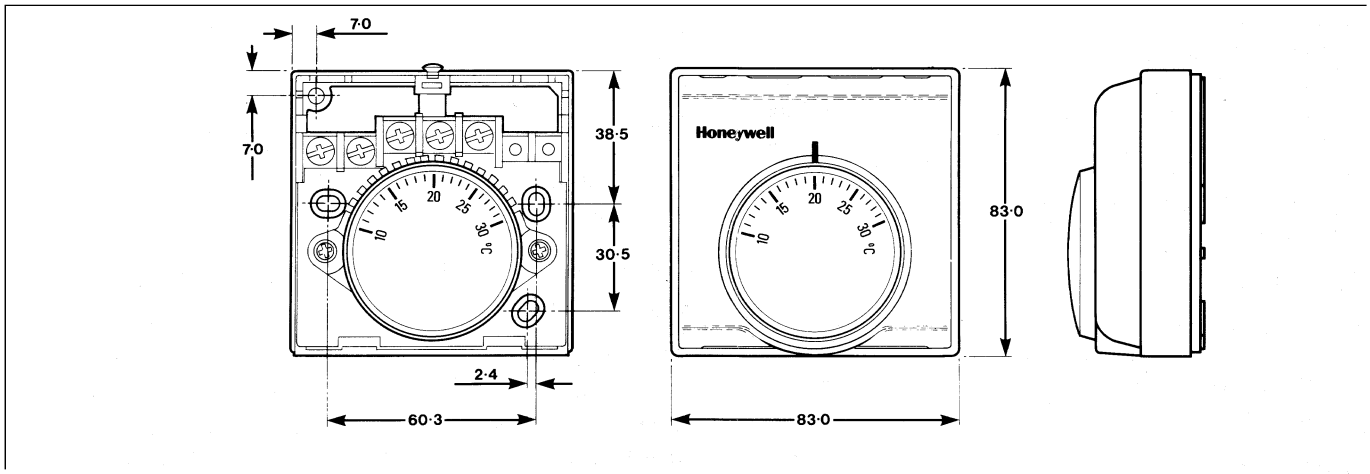
Performance : Maximum differential 1.0ºC at 20ºC at heat ramps of 3ºC per hour, with anticipator connected.
Typical differential 0.5ºC.

Switch life : Greater than 100,000 operations (all loads) for main switch.
10,000 operations for auxiliary on/off or heat/cool switches.

Environmental requirements : Operating temperature range 0 to 40ºC
Shipping and storage range -20 to 50ºC
Humidity range 0 to 90% R.H. (non-condensing)

Approvals : The T4360 / T6360 ranges are CE, RoHs and WEEE compliant. For regulatory information, DoC / CoC D0032 and D0026 are available on request. Product must be wired as shown for CE compliance

DIMENSIONS



INSTALLATION

IMPORTANT

1. *The installer must be a trained service engineer*
2. *Disconnect the power supply before beginning installation*

Location

A T4360/T6360 room thermostat is the temperature control element in your heating system and must be located in a position with good air circulation at average temperature - on an inside wall about 1.5 m above the floor.

Do not position the thermostat in draughts, near hot or cold air from water pipes or radiant heat from the sun or appliances.

Mounting the thermostat

The T4360/T6360 can be mounted directly on the wall or on a conduit box (see Fig. 2). Mounting screws are provided for both alternatives.

An additional wall-plate is available for special mounting requirements.

Wiring the thermostat

The standard wiring access is via a hole in the base of the thermostat, near the top edge. There are also 4 breakouts on the cover (2 on top and 2 on the sides) for surface wiring requirements.

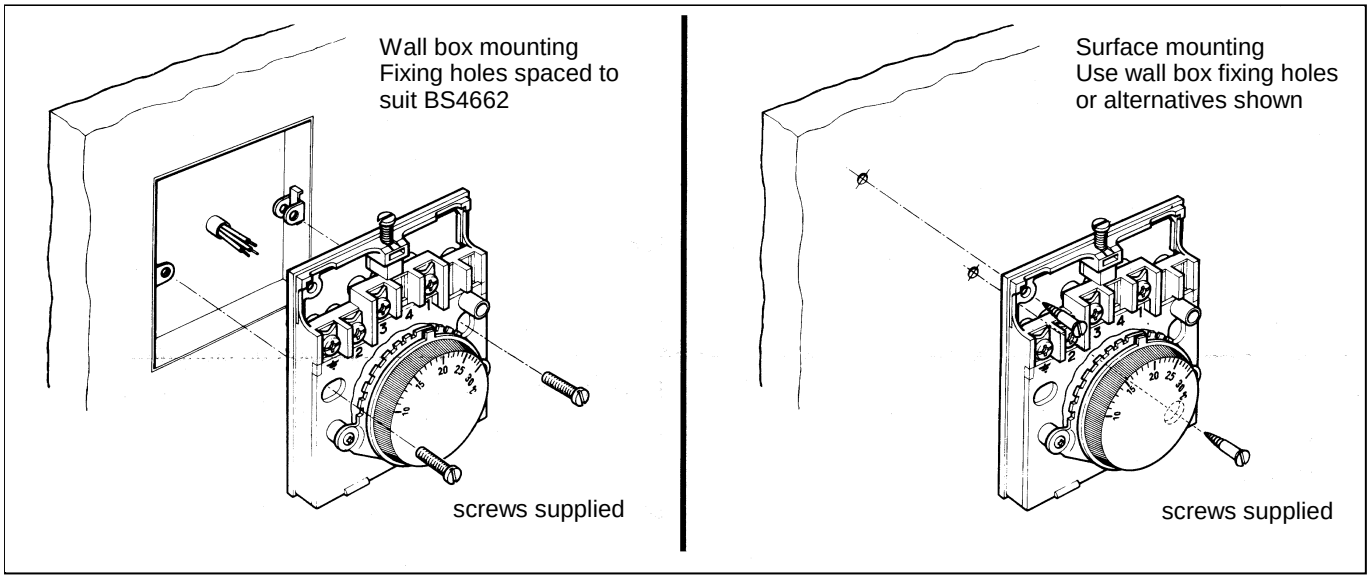


Fig.2 Mounting the Thermostat

OPERATION

Sensing Element

The thermostat sensing element comprises two circular, flexible metal plates welded together at the rims encapsulating a small quantity of gas (0.125g) in liquid form, whose pressure changes greatly in response to small variations in temperature. In effect, this dual diaphragm forms a 'bellows' which expands/contracts in sympathy with the ambient temperature changes - this movement serving to operate a snap acting switch rated to control the heating or cooling circuit.

Heat Anticipator

It is recommended that a thermostat with heat anticipator is used for systems with a high heating ramp rate. This will overcome the overshoot and undershoot problems often found in this type of installation.

Indicator Lamp

A 'potential-free' indicator lamp is available on some models. This can be wired as required to indicate when power has been switched to the (heating or cooling) load (see Wiring).

To wire the lamp as 'boiler lockout' indicator, follow boiler manufacturers wiring instructions.

Auxiliary Switches

The on/off switch provides a means of manually isolating the mains input to the thermostat, to provide a positive off feature.

The summer/winter switch provides the user with a means of manually switching between a heating output (activated on temperature fall) to a cooling output (activated on temperature rise).

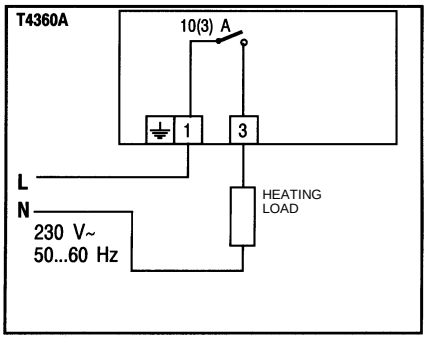
Frost Protect Thermostat

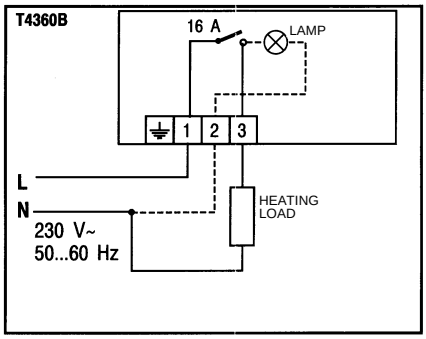
The frost protect thermostat prevents water pipes from freezing in exposed locations. It should be positioned close to where the pipework is most exposed to external chilling and connected to override all existing time and temperature controls. The frost protect thermostat is provided with an indicator mark at the 5^{o}C point, and is supplied with a tamperproof cover.

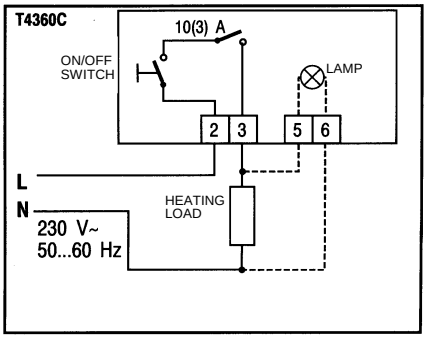
Disposal of Thermostat

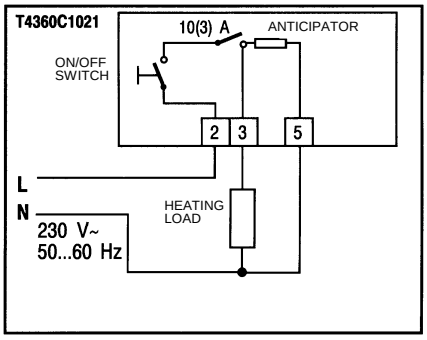
The thermostat contains no user serviceable parts. Please ensure product disposal is in a safe and environmentally friendly manner, in compliance with local regulations. Do **not** dispose of in a fire.

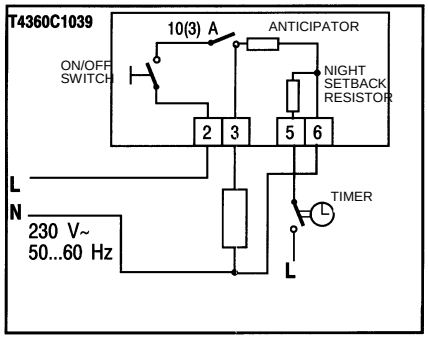
WIRING

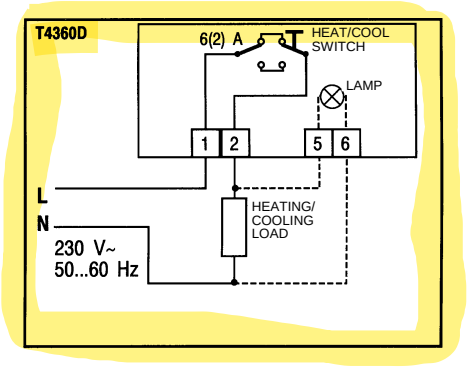


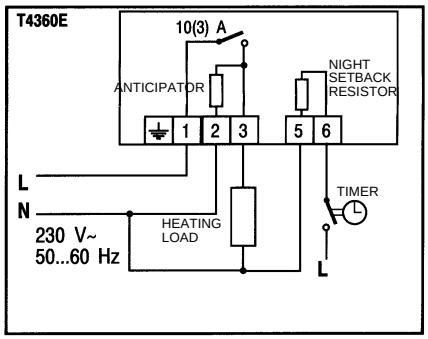


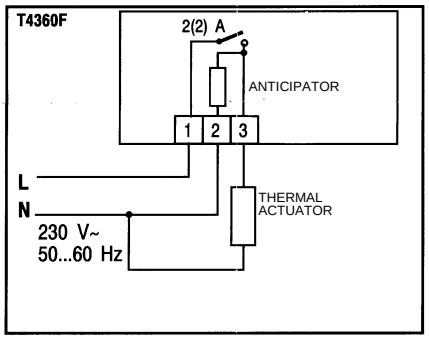


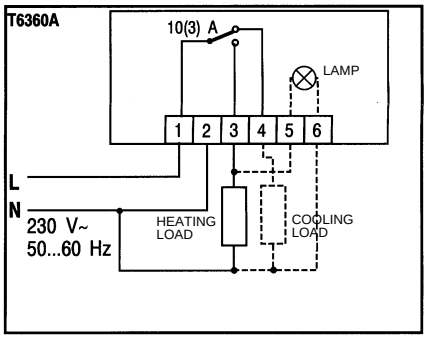


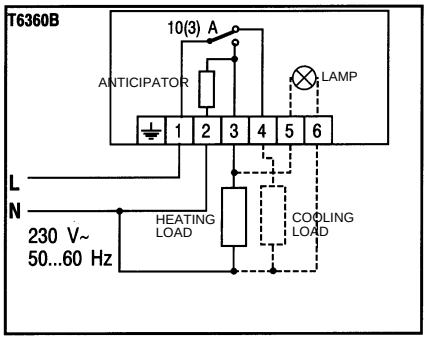


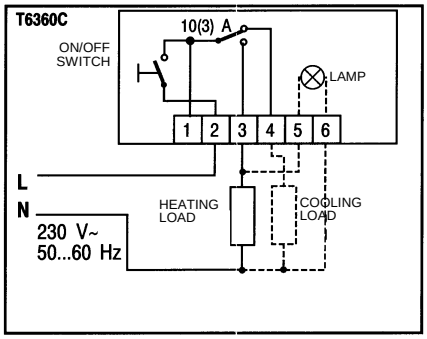












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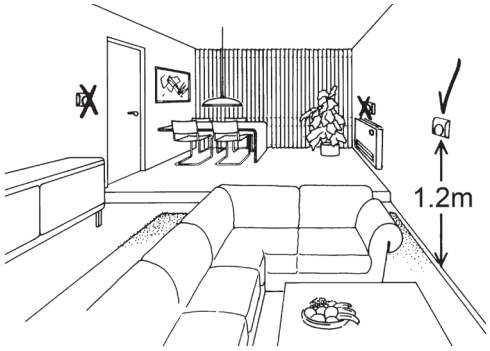
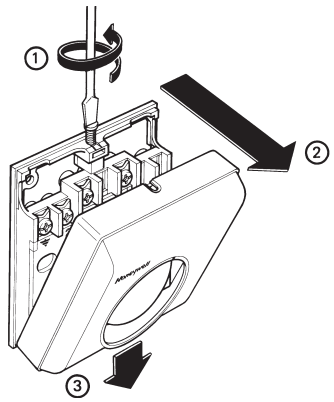
T6360/T4360

Installation Instructions

Positioning of thermostat



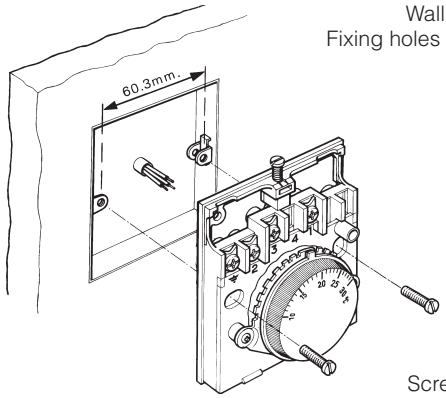
1 Cover removal



Caution: Isolate power supply and make safe before wiring the unit to prevent electric shock and equipment damage. Installation should be carried out by a competent person.

2 a

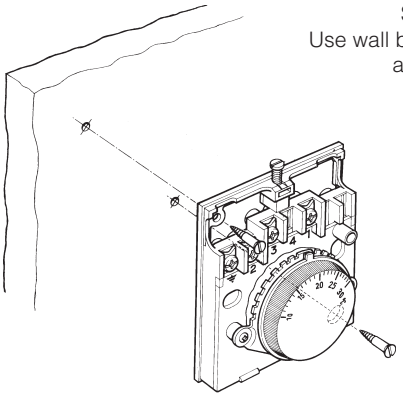
Wall box mounting
Fixing holes spaced to suit BS4662



Screws supplied

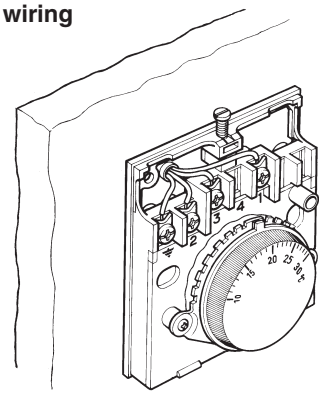
b

Surface mounting
Use wall box fixing holes or alternatives shown

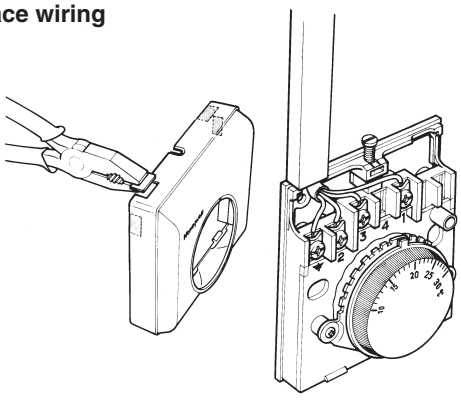


Screws supplied

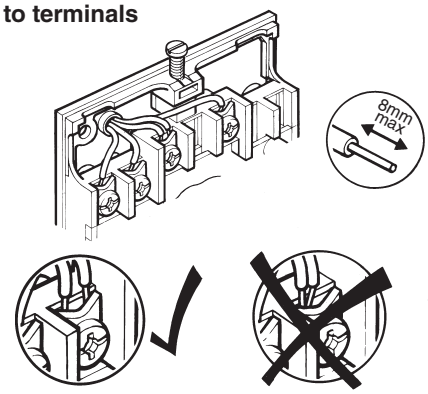
3 a Wall box wiring



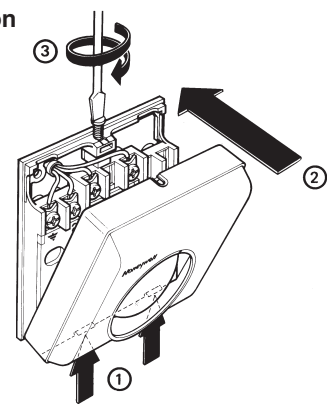
b Surface wiring



4 a Wiring to terminals



5 Completion



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All wiring must be in accordance with IEE Regulations. This thermostat is for fixed wiring only.

A switch, having contact separation of at least 3mm in all poles, must be incorporated in the fixed wiring as a means of disconnecting the supply.

The thermostat is a Class II (double insulated) device. A parking terminal is provided for external earth wiring continuity.

The heating system must be appropriately fused. Most typical wet heating systems should be fused at 3 Amps. Warm air and electrical systems may have a higher load. Maximum fuse ratings are 10 Amps for T6360B and T4360E, or 16 Amps for T4360B.

The thermostat has 4 knockouts on the cover for surface wiring installations. Care must be taken to use the knockouts so that the cable completely fills the knockout hole without leaving any gaps. Where used, mini-trunking must be fitted firmly against the thermostat cover in such a way as to leave no gap.

For T6360B and T4360E a neutral connection must be made to terminal 2 when the heating load is less than 6 Amps.

Replacement

For Central Heating applications up to 6 Amps, use T6360B.

For application between 6 Amps and 10 Amps, again use a T6360B, but without the neutral connection (see above note regarding neutral connection).

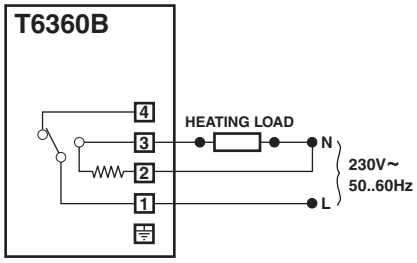
Use T4360B in high current applications up to 16 Amps.

EMC compliance considerations

Keep AC mains supply/load cables separate from signal wiring. Refer to Code of Practice EN61000-5-1 and -2 for guidance.

Wiring diagrams

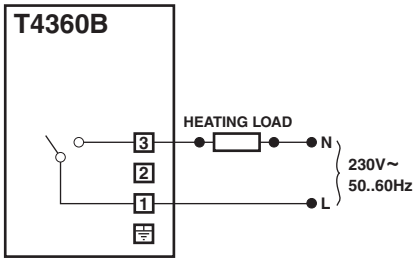
Standard thermostat with anticipator



Terminal 3: 10(3) A max
Terminal 4: 6(2) A max
Indicator Lamp Version:
- Lamp internally wired
- illuminated on call for heat

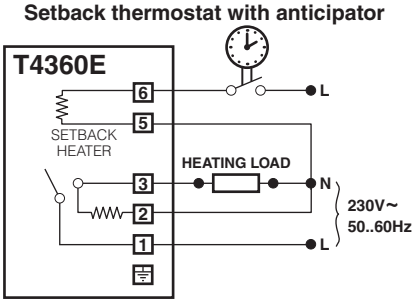
Terminal 4 output typically only used eg to drive closed a drive open / drive closed valve actuator

High current thermostat



Terminal 3: 16 A max
Electric heat loads only
No anticipator connection required

Setback thermostat with anticipator



Terminal 3: 10(3) A max
Setback feature requires external timed input to operate (e.g. from a heating timer such as ST9100)

What is a room thermostat? …an explanation for householders

Crystal Mark 11385 Clarity approved by Plain English Campaign

A room thermostat simply switches the heating system on and off as necessary. It works by sensing the air temperature, switching on the heating when the air temperature falls below the thermostat setting, and switching it off once this set temperature has been reached.

Turning a room thermostat to a higher setting will not make the room heat up any faster. How quickly the room heats up depends on the design of the heating system, for example, the size of boiler and radiators.

Neither does the setting affect how quickly the room cools down. Turning a room thermostat to a lower setting will result in the room being controlled at a lower temperature, and saves energy.

The heating system will not work if a time switch or programmer has switched it off.

The way to set and use your room thermostat is to find the lowest temperature setting that you are comfortable with, and then leave it alone to do its job. The best way to do this is to set the room thermostat to a low temperature – say 18°C – and then turn it up by one degree each day until you are comfortable with the temperature. You won't have to adjust the thermostat further. Any adjustment above this setting will waste energy and cost you more money.

If your heating system is a boiler with radiators, there will usually be only one room thermostat to control the whole house. But you can have different temperatures in individual rooms by installing thermostatic radiator valves (TRVs) on individual radiators. If you don't have TRVs, you should choose a temperature that is reasonable for the whole house. If you do have TRVs, you can choose a slightly higher setting to make sure that even the coldest room is comfortable, then prevent any overheating in other rooms by adjusting the TRVs.

Room thermostats need a free flow of air to sense the temperature, so they must not be covered by curtains or blocked by furniture. Nearby electric fires, televisions, wall or table lamps may prevent the thermostat from working properly.

IMPORTANT: No user serviceable parts. Do not dispose of in a fire.

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energy saving recommended

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