

TRVs with wax elements Tech Doc 05/06/2024

TRVs with wax elements, BS EN215:2019
Technical Information

Terrier TRV Overview

Four Thermostatic Radiator Valves (TRV's) comprising straight and angled ½ x 15mm bodies and straight and angled ½ x 15mm Mistral II bodies, used with Terrier CP, Regis, Regis CP, Regis II, Regis II CP, Bulldog Gen 2, Mistral II, PTS Boss, PTS Boss CP and Iflo thermal heads. All products in the range are to work with all other products in the range, except that Mistral II valves will only accept Mistral II heads, and are all to be in accordance with EN215.

Range

½" x 15mm Angle TRV Valve
½" x 15mm Straight TRV Valve
½" x 15mm Mistral II Angle TRV Valve
½" x 15mm Mistral II Straight TRV Valve
Terrier II Thermal Head Chrome Plated
Mistral II Thermal Head
PTS Boss TRV
PTS Boss TRV Chrome
Regis
Regis Chrome Plated Thermal Head
Iflo contract
Regis II
Regis II Chrome Plated
Bulldog Gen 2 Thermal Head

Nominated Flow Rates

½" x 15mm Angle TRV Valve Forward and Reverse Flow	190Kg/h
½" x 15mm Straight TRV Valve Forward and Reverse Flow	190Kg/h
½" x 15mm Mistral II Angle TRV Valve Forward and Reverse Flow	190Kg/h
½" x 15mm Mistral II Straight TRV Valve Forward and Reverse Flow	190Kg/h

Hysteresis

All Thermal Heads except Bulldog Gen 2	0.75K
Bulldog Gen 2	0.60K

Differential Pressure Influence

All product combinations	0.15K
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Water Temperature Influence

Thermal Heads with plain base	0.9K
Thermal Heads with Chrome plated base	1.2K

Response Time

All Thermal Heads except Bulldog Gen 2	20 min
Bulldog Gen 2	25 min

Seat Authority

All product combinations	0.8
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Control Accuracy

All Thermal Heads except those with chrome plated bases	0.6K
Those with chrome plated bases	1.0K

Maximum Static Pressure

All product combinations	10 bar
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Maximum Differential Pressure

All product combinations	0.6 bar
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INSTALLATION

Directions for use:

Angle TRV

The universal terrier TRV is designed to operate with water flow in either direction. The 15mm size may be fitted in either the horizontal OR vertical position. The most effective position is to have the head in a horizontal position where the greatest efficiency will be obtained.

Straight TRV

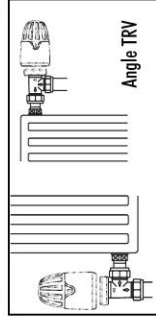
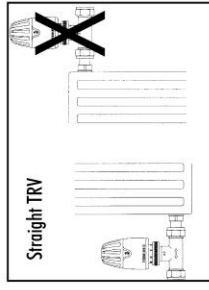
Straight bodied valves should not be used in the top connection of a radiator as heat from the radiator will affect the sensor.

Correct installations

Correct installation and maximum performance will be achieved if:

The thermostatic head is not concealed behind furniture, curtains or drapes, hidden under shelves, panelling or in a recess where air pockets can occur.

The thermostatic head is not exposed to direct sunlight or draughts.



Fitting

1. Thoroughly clean any pipe work to be connected to the valve.
2. Drain down existing system, connecting a hosepipe to the lowest drain off point available.
3. Screw 1/2" BSP tail into radiator tapping, using suitable jointing material e.g. PTFE tape.
4. Connect valve body to tail and tighten nut.
5. Cut and fit copper tube to valve body - tightening nut and cone.
6. Remove manual shut off cap and store safely.
7. Turn Sensor head to indicate "5" in setting window.
8. Position sensor head so that setting window can be viewed and hand tighten securing ring to valve body.
9. Set sensor head to required temperature setting.
10. When fitting a lock shield valve, this must be set to control the water flow through the radiator to the correct level.

PLEASE NOTE:

To avoid the problem of hydronic (water flow) noise it is recommended that the differential pressure does not exceed 0.2 bar. It is strongly recommended that a differential pressure valve should be fitted to any system with TRV's (Pegler order code for differential pressure valve 678021/22mm) will be suitable for most domestic installations. Larger sizes are available if required.

USER INSTRUCTIONS

1. Operating Description

The influence of uncontrolled heat gains from cooking, lighting and sunshine etc., can lead to wasteful overheating. The terrier TRV is designed to react to temperature fluctuations and allow you to control individual room temperature.

The sensor head contains a powerful wax-filled sensor which senses temperature changes. These variations cause expansion and contraction of the thermal element which is transmitted to a valve seat which regulates the water flow to the radiator

2. Setting the TRV

Initially set the TRV to the required room temperature from the table below e.g. Position 3/ 20°C. The TRV should be left for at least 1 hour to allow the temperature to stabilise. If a higher or lower room temperature is required simply adjust the setting accordingly and repeat the process.

3. Temperature Settings

The TRV settings are factory calibrated as indicated in the table below.

0	★	1	2	3	4	5
Shut Off	7°C	11-13°C	15-17°C	19-21°C	23-25°C	27-29°C

Note: These temperatures may vary slightly, depending upon the nature of the installation

Straight and Angle Pattern 15mm Forward and Reverse Flow

