

Installation, Operating, and Safety Instructions

MULTI-THERM thermostatic balancing valve

Figure 154 02: 122 °F - 149 °F | 50 °C - 65 °C

Figure 154 04: 111 °F - 129 °F | 44 °C - 54 °C



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WATER CONTROL SYSTEMS

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1.1 Safety Warnings & Installation Instructions

READ AND UNDERSTAND THESE WARNINGS AND INSTRUCTIONS FIRST.

Labeling of important warning information:

WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

NOTICE is used to address practices not related to physical injury.

⚠ WARNING

Closely review all safety warnings in this manual before installation or use of the valve. Failure to review these safety warnings may lead to injury or property damage!

⚠ CAUTION

A trained and qualified plumber must install this valve.

⚠ CAUTION

All service and repair work should be performed by a trained and qualified plumber using suitable tools and original spare parts.

NOTICE

Check and comply with all applicable federal, state, and local safety and industry codes and standards.

Pass these instructions on to the system operator and retain for later reference!

⚠ CAUTION

Carefully inspect the valve before installation for any signs of damage which may have occurred during transportation or storage. Do not use the valve if it seems in any way damaged!

⚠ CAUTION

Make sure that the installation location is frost-proof. Perform a leak test after installation and before commissioning the plumbing installation.

⚠ WARNING

During valve operation, parts of the valve may heat and burn exposed skin.

NOTICE

This valve is intended for use in normal working conditions only. The responsibility for correct selection of the valve to the operating conditions, distribution, and installation is borne by the system designer, contractor, and user.

⚠ WARNING

Discard all unused parts and packaging material after installation in accordance with federal, state, and local requirements. **Small parts may be a choking hazard!**

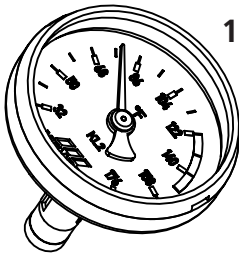
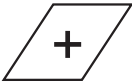
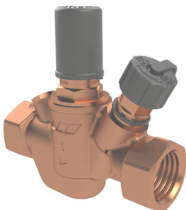
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KEMPER WATER CONTROL SYSTEMS, INC. SHALL NOT BE LIABLE FOR DAMAGES ARISING FROM ANY DISREGARD OF THESE SAFETY WARNINGS & INSTALLATION INSTRUCTIONS, OR ANY DAMAGE CAUSED BY FAULTY INSTALLATION OF THE VALVE, ANY UNAUTHORIZED PRODUCT MODIFICATIONS, OR ANY INCORRECT OPERATION OF THE VALVE.



Fig. 154 12 | 154 14



Accessory		Part. No.
1	temperature gauge	T51001550000100
2	insulation shell	471 11



2.1 Scope

The Multi-Therm thermal balancing valve is for hydraulic balancing of hot water circulation systems. It regulates the hot water

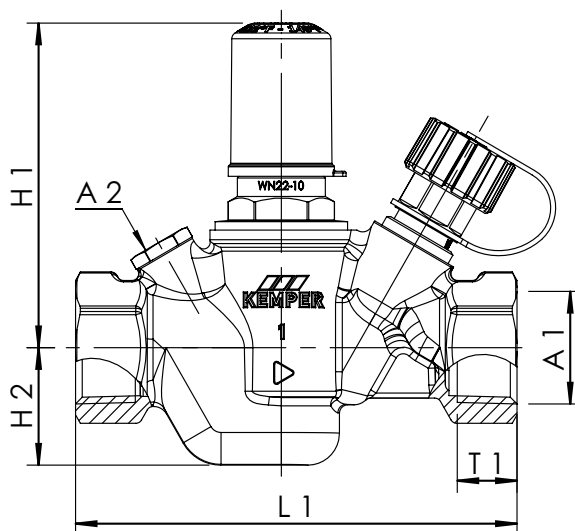
circulation flow rate in dependence of the current and pre-set target temperature.

2.2 Technical data | Dimensions

Technical data	
Adjustable control range	154 02: 122 °F - 149 °F (50 °C - 65 °C) 154 04: 111 °F - 129 °F (44 °C - 54 °C)
Factory pre-setting	154 02: 136 °F (58 °C) 154 04: 120 °F (49 °C)
Temperature range for thermal disinfection	≥ 158 °F (70 °C)
Max. permissible operating temperature	194 °F (90 °C)
Control accuracy	+/- 2 K
Rated pressure	PN 16
Rated sizes	1/2, 3/4, 1 (DN 15, 20, 25)
Connection	FNPT

Dimensions

Size DN	A1 inch (FNPT)	A2 inch (G-thread)	H1 inch	H2 inch	L1 inch	T1 inch	kvs (m ³ /h)	Cv gal/min
15	1/2	G 1/4	3.3	1.1	4.3	0.6	1.3	1.52
20	3/4	G 1/4	3.3	1.3	4.8	0.6	1.6	1.87
25	1	G 1/4	3.8	1.3	5.4	0.8	3.2	3.74



3.1 Assembly instructions

⚠ CAUTION

The valve must be installed in an accessible place by qualified personnel. Always install the valve in the direction of flow (see flow arrow on the body).

In order to achieve sufficient circulation flow rate in the two furthest branches from the circulation pump, we recommend to install KEMPER MULTI-FIX PLUS, figure 155 6G, in those branches.

⚠ CAUTION

Multi-Therm valves must be used within hot water circulation systems that operate within the adjustable temperature range of the valve.

4.1 Adjustment of temperature set-point

Remove cap and unfasten the M5 grub screw with a 3/32 hex key. Turn adjustment wheel so that the required temperature is in line with the marker arrow. Tighten the grub screw and put cap back into position.

⚠ CAUTION

Do not overwind the adjustment wheel over the limit stops.

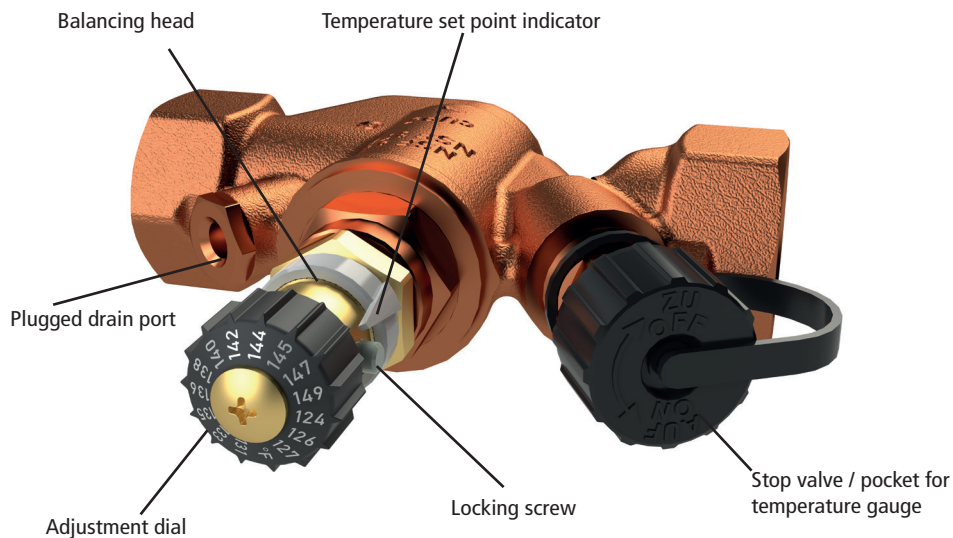
The cap can be sealed.

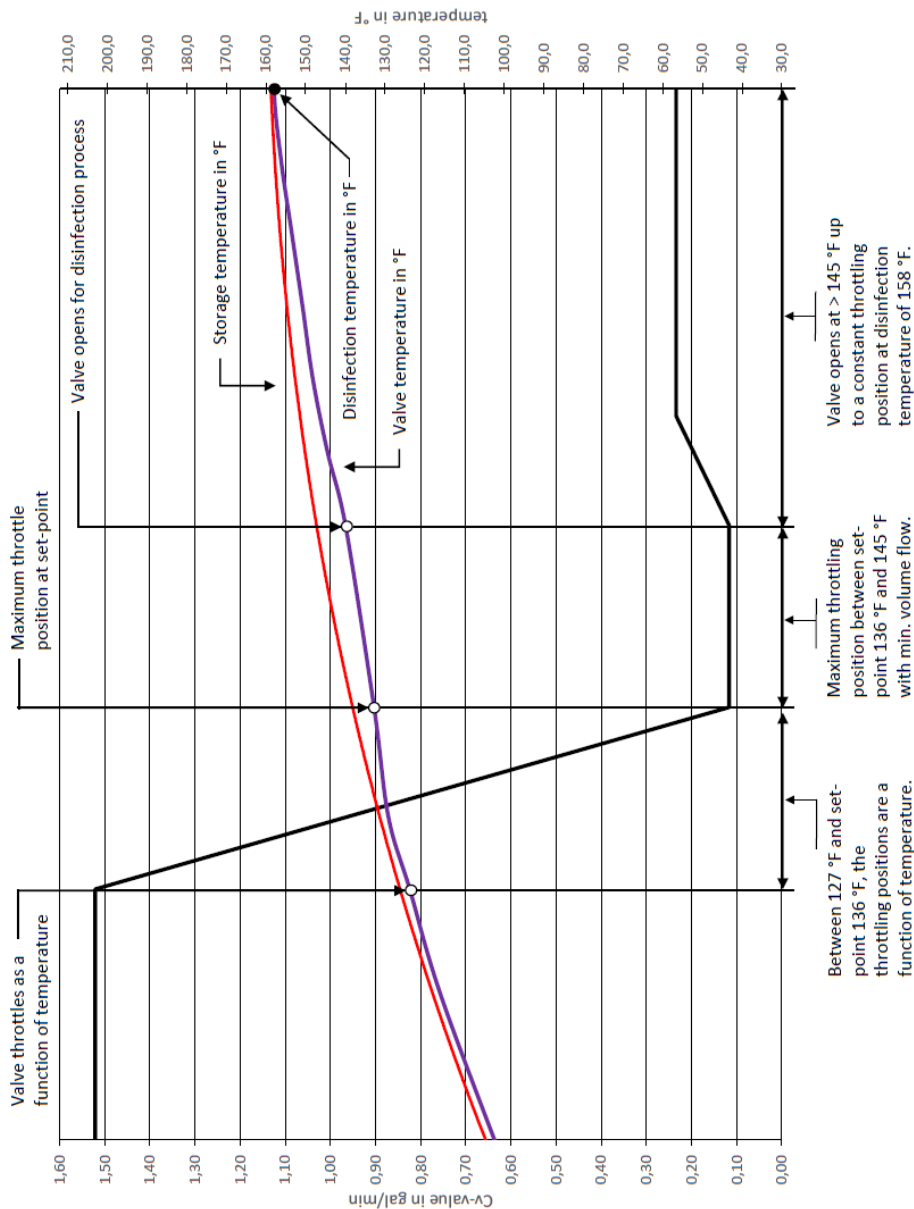
4.2 Isolation

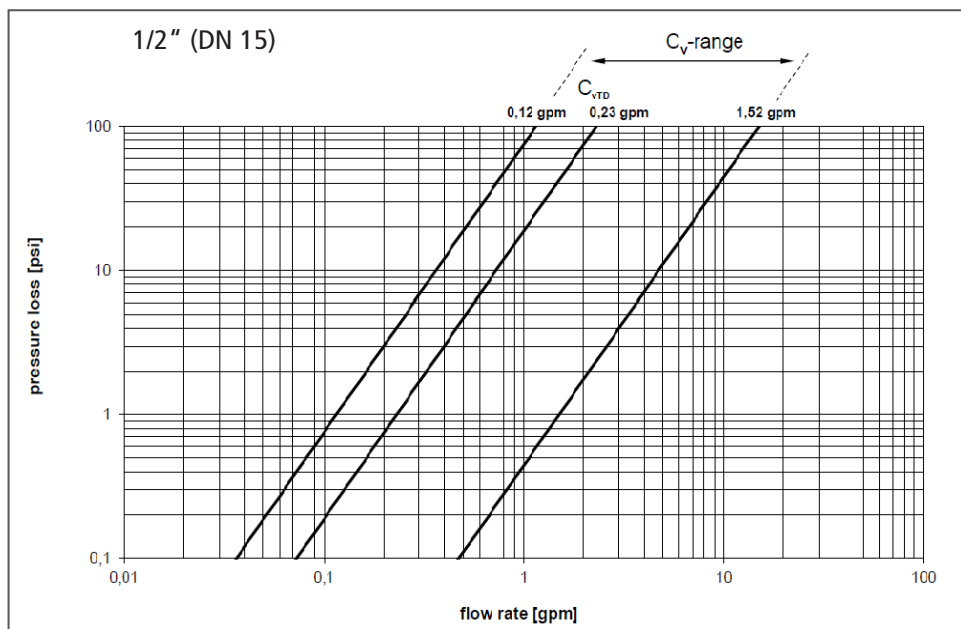
To isolate the valve, turn the black cap of the stop valve clockwise (off) until the valve is fully closed.

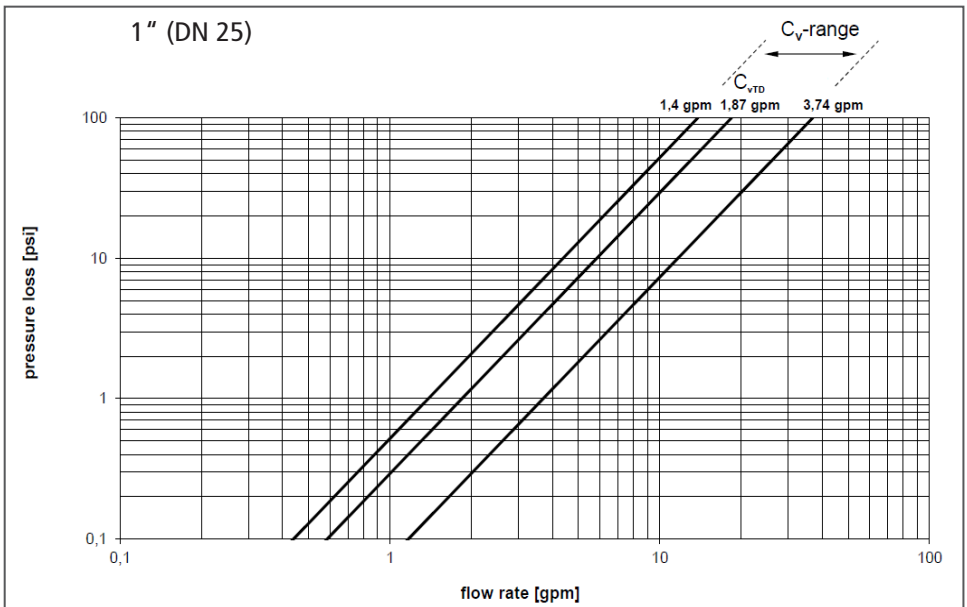
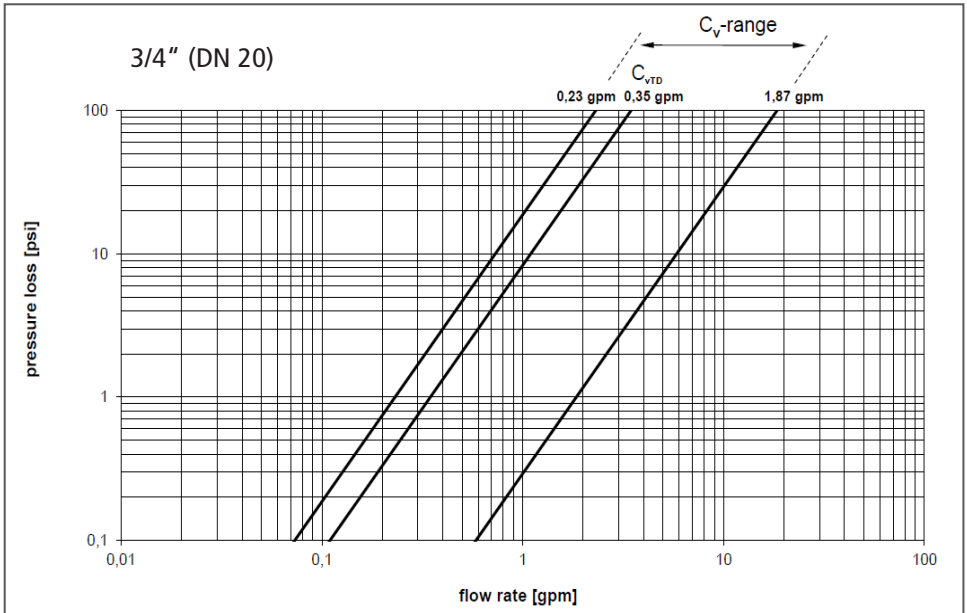
4.3 Insert a temperature gauge

Remove the cap from the integrated stop valve and insert the temperature gauge (part no. T511001550000100).









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