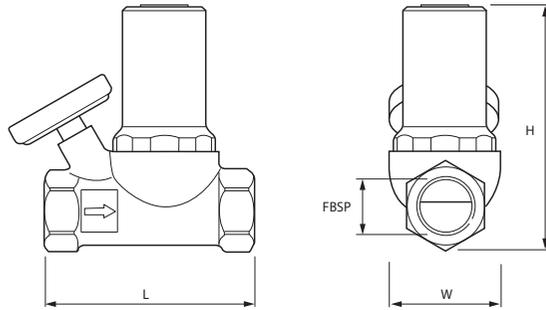


Product Specifications

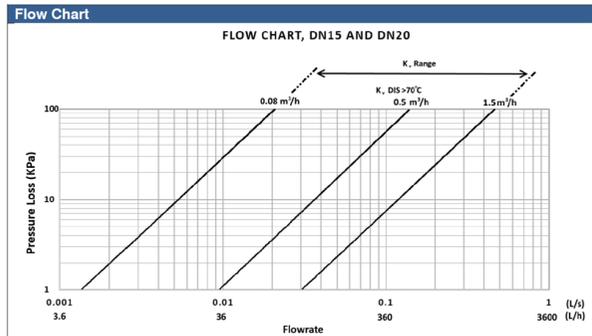
Temperature set range:	40°C-65°C
Factory pre-set temperature:	58°C
Temperature range for thermal disinfection:	> 70°C
Max. working pressure:	16 Bar
Max. working temperature:	100°C
Accuracy:	+/-2°C
Kvs at set temperature, inlet 20°C:	1.5m³/h
Temperature Gauge:	14-86 °C

Dimensions



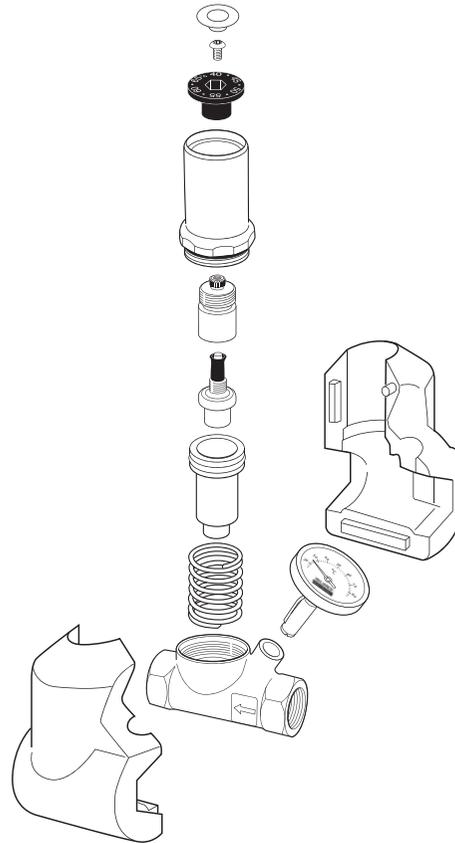
Size	H	L	W	FBSP
½"	87	75	37	½"
¾"	90	80	37	¾"

Flow Diagram



KV min = 0.08 m³/h min flow
 KV dis = 0.5 m³/h max flow of the disinfection 70°C

Exploded Diagram



Spares

Part code	Description
GAGE100060	Temperature gauge 37mm dial
SKIT100060	Internal Service Kit
INSU100060	Insulation case ½"
INSU100065	Insulation case ¾"

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Installation and Maintenance Instructions



Thermal Balancing Valve



Designed to thermostatically regulate water within a hot water circulation system

General Info

The Reliance Valves Thermal Balancing valve is a thermostatic circuit control valve designed to automatically control the temperature within a circulating hot water system by dynamically adjusting the flow rate in a branch or circuit depending on the temperature of the hot water.

The thermal balancing valve uses a thermostatic element which adjusts the flow rate depending on the temperature the valve is set at and the temperature of the water flowing through it.

As the water temperature increases towards the set point the thermal balancing valve reacts to close off and restrict the flow of circulating water maintaining the temperature and forcing the water to other parts of the system that are at lower temperatures.

The thermal balancing valve is supplied complete with an easily removable thermometer to read the circulating temperature, an insulation jacket to save on installation time and to make access to the valve for servicing easier and an identity tag with the basic valve details, contact details for Reliance and a space for an installer to add serial numbers or other information.

The thermal balancing valve from Reliance also includes an automatic function to aid in the thermal disinfection of hot water systems. The design of the thermal balancing valve reduces flow rate as temperatures increase but if the water system temperature is increased to 70°C a bypass port is opened within the valve which allows an increased flow rate through the circuit to disinfect the hot water system.

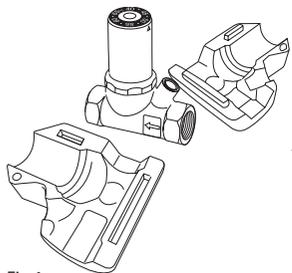


Fig 1

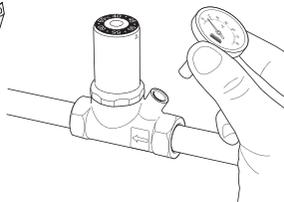
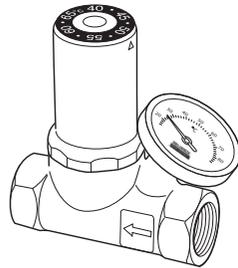


Fig 2



Installation

The thermal balancing valve is available in FBSP connections and in SharkBite push fit connections. The thermal balancing valve can be installed to serve an individual outlet (fig 3) or to control a group of terminal fittings fed from a branch (fig 4). In all cases the determining factor as to the siting of the valve should be the required flow rate to the circulating loop.

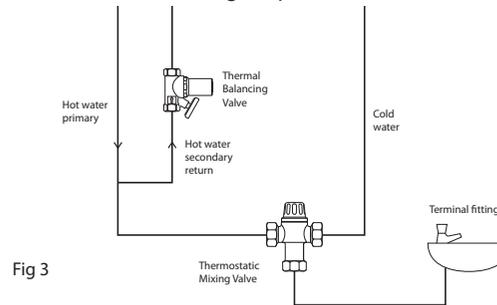


Fig 3

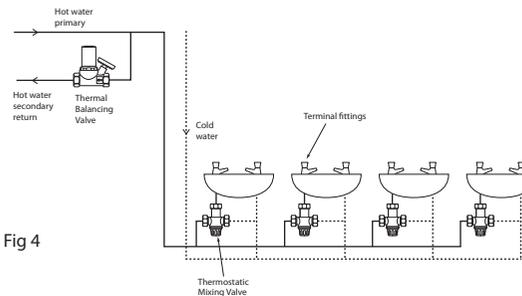


Fig 4

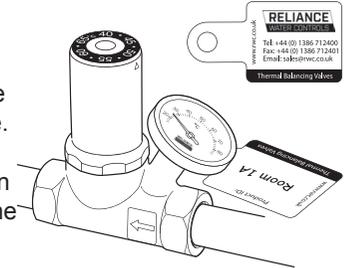
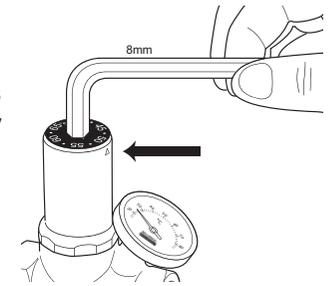
To install the thermal balancing valve first remove the insulation jacket by splitting the two halves (fig 1). If using the FBSP thermal balancing valves versions thread in appropriate pipe fittings to suit the pipe system being used, (hemp and jointing compounds that are not WRAS approved for potable water should not be used).

Once the appropriate fittings are tightened install the valve in the return pipework, making sure that the direction of flow arrow is in the correct orientation. Once installed insert the thermometer into the brass pocket on the outlet of the valve and replace the two halves of the insulation jacket (fig 2).

The thermal balancing valve should be fitted on the return, taking consideration of the direction of flow arrow on the valve.

Commissioning

The thermal balancing valve is designed to be quick and easy to install and commission. To set the desired circulating temperature first remove the silicone plug that covers the adjustment mechanism. Next insert an 8mm Allen key into the top of the valve turn the adjustment mechanism until the desired system temperature lines up with the red datum mark on the valve. The valve is now set at this temperature and will maintain this to within +/- 2°C when the system is running normally. Once the valve is set the product tag can be marked with a serial number or other identifying feature.



Maintenance

The thermal balancing valve requires very minimal ongoing maintenance but if a detrition in performance or poor temperature control are noted then the piston and thermostat assembly may need cleaning.

To access the piston and thermostat remove the valve headwork and pull out the piston and thermostat assembly, Wipe the piston clean using a diluted WRAS approved de-scaling solution and then lightly re-grease the outer surface of the piston using a WRAS approved silicone based waterproof grease. Re-assemble the valve as per the exploded diagram, and then re-commission as laid out in the commissioning section.

