

DATA SHEET

BVTS Thermostatic Valve

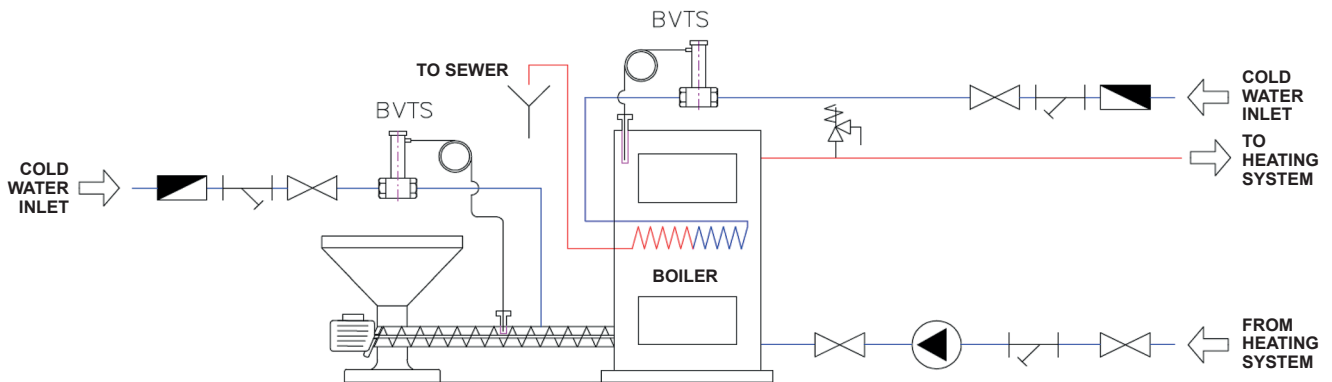


Main Features

Application	Solid-fuel boiler protection from overheating.
Purpose	By opening cold water inlet, it prevents boiler overheating by discharging heat from a recooling heat exchanger in case of emergency; it also prevents backburning in a biomass fuel store by flooding the fuel (see the valve connection diagram).
Working fluid	Water.
Installation position	Can be installed in any location; the sensor shall be located in the hottest place.
Valve function	Automatic operation depending on the sensor temperature.
Opening temperature	The opening temperature depends on the valve type (see the table on page 2).
Valve adjustment	The valve is factory adjusted; no user adjustments possible.
Valve opening	When the temperature at sensor increases the pressure inside the sensor grows and is transferred to the valve pin via the capillary tube and bellows; when the opening temperature is reached, the pressure in bellows exceeds the spring load so the pin lifts up and the valve opens. For manual opening, the valve is fitted with an activation button.

The valve meets the requirements set by the Pressure Equipment Directive (PED) 97/23/EC and EN 14597. Its design fulfils the requirements for a device to dissipate excess heat, as of Art. 4.3.8.4, EN 303-5. This is a STW device, Th type, according to EN 14597:2012.

Position of the valve in the system



LEGEND:

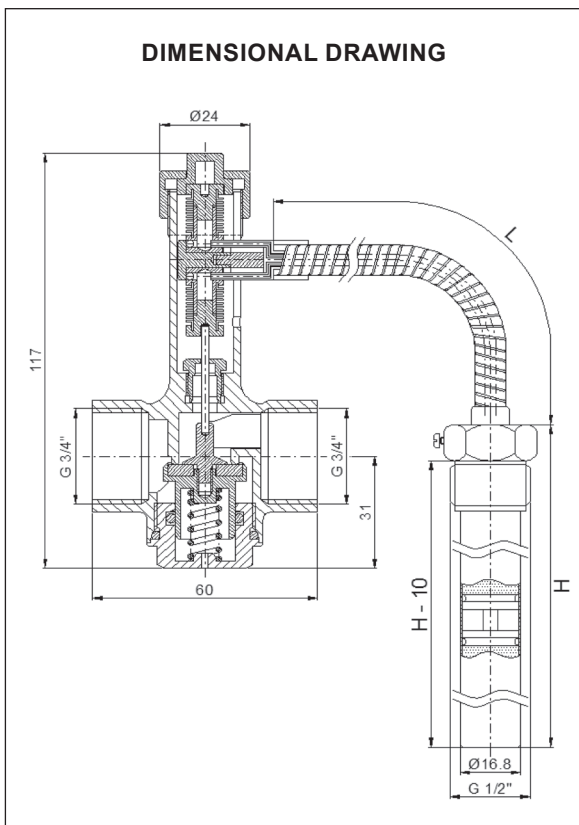
shut-of valve
 filter
 check valve (installed in supply pipe)
 safety valve
 pump

Before the assembly is finished, the opening temperature is set for each valve and the valve is tested. During the test the valve is tested for pressure, leaks and the opening temperature.

Thermostatic valve must not be used to replace a heat source safety valve.

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Technical Data

Nominal diameter	DN 20
Pipe connection	internal thread G 3/4"
Connection to heat source	external thread G 1/2"
Nominal pressure	PN 10
Heating fluid max. working pressure	6 bar
Cooling water max. working pressure	10 bar
Max. cooling water pressure after the valve	half of the input pressure value
Working temperature of cooling water	5 to 110 °C
Ambient temperature	0 to 80 °C
Hysteresis	6 °C
K_{vs} at the opening temp. $t_{OT} + 13$ °C	2.6 m ³ /h

Materials

Valve body, outer metal parts	forged brass
Inner metal parts	forged brass
Spring	stainless steel
Sensor	copper
Capillary tube	copper
Sheath	brass
Activation push button	ABS
O-rings and sealing inserts	EPDM, NBR

Type BVTS	L [mm]	H [mm]	Valve opening temp. $t \pm 2$ °C [°C]	Working sensor temp. [°C]	Capillary version [-]	Weight [kg]	Code
050-R130-P14	1300	140	50	0 to 75	removable	0.7	14473
055-F130-P14	1300	140	55	0 to 80	fixed	0.7	14474
065-F130-P14	1300	140	65	0 to 90	fixed	0.7	14475
065-F130-P16	1300	160	65	0 to 90	fixed	0.7	14643
070-F130-P14	1300	140	70	0 to 95	fixed	0.7	14476
095-F130-P14	1300	140	95	0 to 125	fixed	0.7	14477
095-F400-P14	4000	140	95	0 to 125	fixed	1.0	14478
095-R130-P14	1300	140	95	0 to 125	removable	0.7	14479
097-F130-P14	1300	140	97	0 to 125	fixed	0.7	14480
100-R130-P14	1300	140	100	0 to 125	removable	0.7	14481
100-R130-P22	1300	220	100	0 to 125	removable	0.7	14482
108-F130-P14	1300	140	108	0 to 133	fixed	0.7	14483