

KUNKLE BAILEY 716T PRESSURE AND TEMPERATURE SAFETY RELIEF VALVE

A top guided pressure and temperature safety relief valve that provides exceptional hot water system protection

**FEATURES**

- WRAS approved.
- Manual test lever.
- Soft seated design.
- Double safety protection.
- Designed to EN1490/BS6283.
- Large discharge capacities.
- Independently tested by BRE.
- Smooth temperature probe.
- Diaphragm protection.

GENERAL APPLICATION

The 716T is the ultimate solution to hot water system protection, protecting unvented hot water systems against both excess pressure and excess temperature.

TECHNICAL DATA

Material:	Bronze
Sizes:	¾" to 2" (DN 20 to 50)
Connections:	Threaded
Pressure range:	35 to 149 psig (2.4 to 10.3 barg)
Temperature ratings:	25 to 184 kW

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DESIGN/SPECIFICATIONS

OVERVIEW

The 716T has capacities well in excess of EN1490:2000 code requirements and has been tested independently by the Building Research Establishment to EN1490:2000 which supersedes BS6283 pt3.

The temperature probes are designed to have a smooth surface free from crevices, to reduce mineral build-up and are white powder coated to minimize galvanic action within the heater.

The 716T has a bronze body, DZR brass internals and silicone seat in accordance with potable water code requirements. A soft seat provides leak tight operation. The spring and spring chamber are protected from the hot water by the EPDM diaphragm, reducing corrosion and increasing life in service.

The manual test lever can be operated easily from any position around the valve.

Operation

Increasing pressure is sensed by the spring, which opens the relief valve automatically at the pre-set pressure and the integral probe monitors increases in temperature independently, opening the relief valve safely between 90°C and 95°C.

SPECIFICATIONS

Materials

Body	Bronze
Internals	DZR brass
Trim	Silicone

SIZE RANGE

Size, in (DN)	Min pressure (barg)	Max pressure (barg)
¾ (20)	2.4	10.3
1 (25)	2.4	10.3
1¼ (32)	2.4	10.3
1½ (40)	2.4	10.3
2 (50)	2.4	10.3

Connections

Screwed in x screwed out

Cap options

Lever fitted as standard

Approvals

ASME Section IV

PED certified to article 3 paragraph 3 (sound engineering practice), hence they do not carry the CE mark

Water Regulation Advisory Scheme (WRAS)

Also tested independently by the Building Research Establishment

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SIZING/DIMENSIONS

TEMPERATURE

Temperature rating in kW					
Size	¾"	1"	1¼"	1½"	2"
kW	44	70	80	173	184
kW (Per BSEN 1490)	25	50	75	100	-

To convert kW to Btu/hr multiply by 3400. The temperature probe will safely open the relief valve approximately in the region of 90 to 95°C.

PRESSURE

Pressure Rating in kW					
Set P (barg)	Size				
	¾"	1"	1¼"	1½"	2"
2.4	166	186	315	524	631
2.5	171	192	324	540	650
3.0	196	220	371	619	745
4.0	246	277	466	777	935
5.0	296	323	560	935	1125
6.0	345	389	655	1093	1315
7.0	395	445	749	1251	1505
8.0	445	502	844	1409	1695
9.0	495	558	939	1567	1885
10.0	545	614	1033	1725	2075
10.3	560	631	1062	1773	2132

The kW rating shown has been calculated in accordance with BS6759 pt1 and ASME IV.

They represent the steam relief capacity of the relief valve at 10% over pressure.

To convert kW to Btu/hr multiply by 3400.

DIMENSIONS

Sizes (ins) inlet and outlet	A	B	C	D	Weight (kg)
¾" male x ¾" female	38	62	262	113	0.60
1" male x 1" female	40	53	262	121	0.75
1¼" male x 1" female*	44	50	259	99	1.20
1½" male x 1½" female	63	68	271	80	2.00
2" male x 2" female	63	75	280	65	2.00

* 1¼" valve has a 1" outlet

All dimensions in mm.

