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(HA)

Relief valves for hot water appliances

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Foreword

This translation has been made based on the original Japanese Industrial Standard revised by the Minister of Economy, Trade and Industry through deliberations at the Japanese Industrial Standards Committee, as the result of proposal for revision of Japanese Industrial Standard submitted by Japan Heating Industrial Association (HA) with the draft being attached, based on the provision of Article 12 Clause 1 of the Industrial Standardization Law applicable to the case of revision by the provision of Article 14. Consequently **JIS B 8414 : 1999** is replaced with this Standard.

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In the event of any doubts arising as to the contents,
the original JIS is to be the final authority.

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Relief valves for hot water appliances

Introduction This Japanese Industrial Standard has been established in 1982 as **JIS B 8414** for the purpose of securing safety and reliability of relief valves for hot water appliances of a boiler for hot-water supply or for space heating purposes (hereafter referred to as “hot water heat exchanger”), which does not conform to the provisions of Ordinance on Safety of Boilers and Pressure Vessels (Ministerial Ordinance No. 33 of the Ministry of Labour, Sep. 1972) based on the Industrial Safety and Health Law (Law No. 57, 1972), for discharging expansion water to keep body internal pressure of the relevant hot water heat exchanger at a certain level.

This revision, based on the Ministerial Ordinance which partially amends the Ordinance concerning Standards for Structure and Material of Water Supply Systems (Ordinance No. 6 of the Ministry of Health, Labour and Welfare, issued on Jan. 26, 2004, enforced on Apr. 1, 2004), conforms this Standard to the regulation for effect to water quality which has been modified in the said Ordinance.

1 Scope This Standard specifies relief valves for hot water appliances (hereafter referred to as “relief valves”) intended to be used for hot water exchangers of the maximum working pressure 100 kPa or 200 kPa.

Remarks : In this Standard, all the pressures refer to gauge pressure.

2 Normative references The following standards contain provisions which, through reference in this Standard, constitute provisions of this Standard. The most recent editions of the standards (including amendments) indicated below shall be applied.

JIS B 0203 *Taper pipe threads*

JIS B 7505 *Bourdon tube pressure gauges*

JIS B 8410 *Pressure reducing valves for water works*

JIS H 3300 *Copper and copper alloy seamless pipes and tubes*

JIS H 3320 *Copper and copper alloy welded pipes and tubes*

JIS K 6257 *Rubber, vulcanized or thermoplastic—Determination of heat ageing properties*

JIS S 3200-1 *Equipment for water supply service—Test methods of hydrostatic pressure*

JIS S 3200-2 *Equipment for water supply service—Test method of low temperature resistant*

JIS S 3200-6 *Equipment for water supply service—Test methods of durability*

JIS S 3200-7 *Equipment for water supply service—Test methods of effect to water quality*

JIS Z 8751 *Reading methods of the vacuum gauges by means of the head difference in the hydrostatic pressure*

3 Definitions For the main terms in this Standard, the following definitions apply.

- a) **start-to-discharge pressure** Pressure on the valve-inlet side when the water starts to blow from the valve-outlet side by increasing of the pressure on the valve-inlet side.
- b) **reseating pressure** Pressure on the valve-inlet side when the blowing of water stops by decreasing of the pressure on the valve-inlet side.

4 Classification and symbols Relief valves shall be classified and symbolized according to the start-to-discharge pressure and nominal bore size as follows:

- a) **Division by the start-to-discharge pressure** Table 1 gives the division by the start-to-discharge pressure.

Table 1 Division by the start-to-discharge pressure

Unit: kPa

Symbol	Start-to-discharge pressure	Maximum working pressure of hot water heat exchanger
95	95	100
97	97	
190	190	200

Remarks : For application of relief valves, use pressure reducing valves for water works specified in **JIS B 8410** with the following combination corresponding to the maximum working pressure of the hot water heat exchanger.

Relief valve (symbol)	Pressure reducing valve for water works (symbol)
95	65, 80
97	65, 80, 85
190	120, 150, 170

- b) **Division by the nominal bore size** Table 2 gives the division by the nominal bore size.