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(HA)

**Pressure reducing valves for
water works**

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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 8410 : 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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Pressure reducing valves for water works

Introduction This Japanese Industrial Standard has been established in 1979 as **JIS B 8410** for the purpose of ensuring safety and reliability of pressure reducing valves for water works intended for use in water feeding of boilers 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 the Ordinance on Safety of Boilers and Pressure vessels (Ministerial Ordinance No. 33 of the Ministry of Labour, 1972) based on the Industrial Safety and Health Law (Law No. 57, 1972).

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 Ordinance.

1 Scope This Standard specifies pressure reducing valves for water works with built-in back current prevention mechanism and with a maximum valve-inlet working pressure not exceeding 750 kPa to be used mainly in water feeding of hot water heat exchanger (hereafter referred to as “pressure reducing valves”).

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 8414 *Relief valves for hot water appliances*

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

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

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 3200-4 *Equipment for water supply service—Test method of prevention from back current*

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*

3 Definitions

- a) **valve-inlet pressure** Pressure acting to valve body at the inlet or to a piping internal close to the valve body inlet side.
- b) **valve-outlet pressure** Pressure acting to valve body at the outlet, or to a piping internal close to the valve body outlet side.
- c) **set pressure** The valve-outlet pressure when it is closed while applying a specific pressure to the valve inlet.
- d) **open flow rate** The flow rate when valve-inlet pressure is kept at a specified level while releasing the valve outlet.
- e) **pressure characteristic** Valve-outlet pressure relating to fluctuation of the valve-inlet pressure when closing the valve outlet.
- f) **general use** Those equipped with no draining device to prevent such occurrence as fracture by freezing.
- g) **cold district use** Those equipped with draining device to prevent fracture of freezing and the like.

4 Classification and symbols Pressure reducing valves shall be classified and symbolized according to the set pressure, nominal bore size and use, as follows.

- a) **Division by set pressures** Table 1 gives the division by the set pressure.

Table 1 Division by set pressures

Unit: kPa

Symbol	Set pressure	Maximum working pressure of hot water heat exchanger
65	65	100
80	80	
85	85	
120	120	200
150	150	
170	170	

Remarks : For application of pressure reducing valves, use relief valves for hot water appliances in **JIS B 8414** with the following combination matching to the maximum working pressure of the hot water heat exchanger.

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