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Solid-stem general purpose liquid-in-glass thermometers

ICS 17.200.20

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Foreword

This translation has been made based on the original Japanese Industrial Standard revised by the Minister of International Trade and Industry through deliberations at Japanese Industrial Standards Committee in accordance with the Industrial Standardization Law. Consequently **JIS B 7411:1977** is replaced with **JIS B 7411:1997**.

Further, **JIS B 7413:1977**, *Etched-stem mercury-in-glass thermometers (Partial immersion type)*, has been integrated into **JIS B 7411:1997** and withdrawn.

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In the event of any doubts arising as to the contents,
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Solid-stem general purpose liquid-in-glass thermometers

Introduction This Japanese Industrial Standard has been prepared on a basis of the first edition of **ISO 1770**, *Solid-stem general purpose thermometers*, without any modification in technical content, however, the specified items (Annex 1 and Annex 2), which are not standardized in the corresponding International Standard, have been supplemented as Japanese Industrial Standard.

1 Scope This Japanese Industrial Standard specifies the solid-stem general purpose liquid-in-glass thermometers, classified into two series, which are not expensive and are suitable for industrial use, educational use, and laboratory use where highly accurate measurements are not required.

- Remarks 1 This Standard does not necessarily define all precautions for safety use, therefore, users of this thermometer shall specify appropriate prohibitions for safe and healthy treatment.
- 2 Total immersion-type thermometers and partial immersion-type thermometers are respectively shown in Annex 1 and Annex 2.
 - 3 The thermometers which are called A to H in Attached Table 1 are suitable for the measurements needing a rather inferior accuracy, and the thermometers which are called J to W in Attached Table 2 are for rather high accuracy.
 - 4 The International Standard corresponding to this Standard is listed as follows.

ISO 1770: 1981 *Solid-stem general purpose thermometers*

2 Normative references The following standard contains provisions which, through reference in this Standard, constitute provisions of this Standard. The most recent edition of the standard indicated below shall be applied.

JIS B 7410 *Liquid-in-glass thermometers for testing of petroleum product*

3 Temperature scale The thermometers shall be graduated in accordance with the Celsius scale as defined in the current definition of the International Practical Temperature Scale adopted by the General Conference of Weights and Measures, and in accordance with the International System of Units (SI).

4 Immersion

4.1 General Immersion means the condition in which a thermometer is kept when temperature is measured, and classified into total immersion and partial immersion.

4.2 Total immersion The reading shall be correct when the thermometer is immersed so that the top of the liquid column is in the same plane as, or no more than two scale divisions above, the surface of the medium the temperature of which is required to be measured.