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Glass electrodes for measurement
of pH

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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 the Society of Instrument and Control Engineers (SICE)/Japanese Standards Association (JSA) 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 Z 8805:1978** is replaced with this Standard.

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Glass electrodes for measurement of pH

1 Scope

This Japanese Industrial Standard specifies the general glass electrodes for measuring pH values based on the membrane potential difference of glass membrane, and the reference electrodes used in combination with such glass electrodes (hereafter referred to as “electrodes”). However, this Standard does not apply to electrodes for special purposes and those used for automatic measuring instruments.

2 Normative reference

The following standard contains provisions which, through reference in this text, constitute provisions of this Standard. The most recent edition of the standard (including amendments) listed below shall be applied.

JIS Z 8802 *Methods for determination of pH of aqueous solutions*

3 Terms and definitions

For the purposes of this Standard, the following terms and definitions apply.

3.1 glass electrode

an electrode having a glass membrane end which produces an electromotive force proportional to the pH value of the solution, and internally having a glass electrode internal solution and an internal electrode

3.2 reference electrode

an electrode as reference for comparison used for measuring the electromotive force of a glass electrode, internally having a reference electrode internal solution and an internal electrode, in which the test solution is contacted at the liquid junction part

3.3 composite electrode

an electrode in which a glass electrode and reference electrode, or a glass electrode, reference electrode and a thermometric unit for temperature compensation are encased in a single supporting tube

3.4 electrode membrane

a glass membrane producing an electromotive force proportional to the pH value of the solution

3.5 internal electrode

a stable electrode sealed in the glass electrode and the reference electrode, respectively

3.6 glass electrode internal solution

a buffer solution sealed in the glass electrode