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**Direct acting indicating analogue
electrical measuring instruments
and their accessories—**

**Part 1 : Definitions and general
requirements common to all parts**

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In the event of any doubts arising as to the contents,
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Contents

	Page
Introduction.....	1
1 General.....	1
1.1 Scope.....	1
1.2 Normative references.....	2
2 Definitions.....	3
2.1 General terms.....	3
2.2 Description of instruments according to their method of operation.....	5
2.3 Constructional features of instruments.....	7
2.4 Characteristic features of instruments.....	9
2.5 Characteristic values.....	10
2.6 Influence quantity, reference conditions, nominal range of use and preconditioning.....	10
2.7 Errors and variations.....	11
2.8 Accuracy, accuracy class and class index.....	12
3 Description, classification and compliance.....	12
3.1 Description.....	12
3.2 Classification.....	12
3.3 Compliance with the requirements of this Standard.....	12
4 Reference conditions and intrinsic errors.....	13
4.1 Reference conditions.....	13
4.2 Limits of intrinsic error, fiducial value.....	13
5 Nominal range of use and variations.....	15
5.1 Nominal range of use.....	15
5.2 Limits of variations.....	15
5.3 Conditions for the determination of variations.....	17
6 Further electrical and mechanical requirements.....	17
6.1 Voltage tests, insulation tests and other safety requirements.....	17
6.2 Damping.....	18
6.3 Self-heating.....	18
6.4 Permissible overloads.....	19
6.5 Limiting values of temperature.....	19
6.6 Deviation from zero.....	19
7 Constructional requirements.....	19
7.1 Sealing to prevent access.....	19
7.2 Scales.....	19
7.3 Preferred values.....	21

7.4	Adjusters, mechanical and/or electrical	21
7.5	Effects of vibration and shock	22
7.6	Indication of out-of-range values of the measurand	22
8	Information, general markings and symbols.....	23
8.1	Information.....	23
8.2	Markings, symbols and their locations	24
8.3	Markings relating to the reference values and nominal ranges of use of influence quantities.....	25
9	Markings and symbols for terminals.....	32
9.1	Requirements for markings	32
9.2	Earthing (grounding) terminals	32
9.3	Measuring circuit terminals	33
9.4	Special markings for terminals	33
10	Tests to prove compliance with this Standard	33
Annex A-1 (informative)	Tests.....	34
Annex B-1 (normative)	Permissible errors and variations	35
Annex JA (informative)	Markings (safety).....	38
Annex JB (informative)	Comparison table between JIS and corresponding International Standard	39

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 Electric Measuring Instruments Manufacturers' Association (JEMIMA)/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 C 1102-1 : 1997** is replaced with this Standard.

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JIS C 1102 consists of the following 9 parts under the general title "*Direct acting indicating analogue electrical measuring instruments and their accessories*":

Part 1: Definitions and general requirements common to all parts

Part 2: Special requirements for ammeters and voltmeters

Part 3: Special requirements for wattmeters and varmeters

Part 4: Special requirements for frequency meters

Part 5: Special requirements for phase meters, power factor meters and synchrosopes

Part 6: Special requirements for ohmmeters (impedance meters) and conductance meters

Part 7: Special requirements for multi-function instruments

Part 8: Special requirements for accessories

Part 9: Recommended test methods

Parts 2 to 9 shall be read in conjunction with this Part 1.

Parts 1 to 8 are arranged in the same format where corresponding clause numbers are standardized.

In addition, tables, figures and Annexes are added with tree numbers of each standard to make the parts identifiable. This editing will assist the user of **JIS C 1102** to distinguish information relating to the different types of instruments.

Direct acting indicating analogue electrical measuring instruments and their accessories—Part 1 : Definitions and general requirements common to all parts

Introduction

This Japanese Industrial Standard has been prepared based on the fifth edition of **IEC 60051-1** published in 1997 with some modifications of the technical contents.

The portions underlined with dots are the matters in which the contents of the original International Standard have been modified. A list of modifications with the explanations is given in Annex JB.

1 General

1.1 Scope

This Standard applies to direct acting indicating electrical measuring instruments having an analogue display, such as:

- ammeters and voltmeters;
- wattmeters and varmeters;
- frequency meters of pointer and vibrating-reed types;
- phasemeters, power-factor meters and synchrosopes;
- ohmmeters, impedance meters and conductance meters;
- multi-function instruments of the above types.

It also applies to certain accessories used with these instruments, such as:

- shunts;
- series resistors and impedance elements.

If other accessories are associated with instruments, this Standard is applicable to the combination of the instrument and the accessory provided that the adjustments have been made for the combination.

This Standard also applies to a direct acting indicating electrical measuring instrument whose scale marks do not correspond directly to its electrical input quantity, provided that the relationship between them is known.

This Standard also applies to instruments and accessories having electronic devices in their measuring and/or auxiliary circuits.

This Standard does not apply to special purpose instruments which are covered by their own **JIS** standards.

This Standard does not apply to special purpose devices which are covered by their own **JIS** standards when they are used as accessories.