

Direct acting indicating analogue electrical measuring instruments and their accessories —

Part 2: Specification for special requirements for ammeters and voltmeters

This European Standard EN 60051-2 has the status of a
British Standard

UDC: 621.317.725.037.33

NO COPYING WITHOUT BSI PERMISSION EXCEPT AS PERMITTED BY COPYRIGHT LAW

BSI
Documents

AVA

Document Sharing Hub

Cooperating organizations

The European Committee for Electrotechnical Standardization (CENELEC), under whose supervision this European Standard was prepared, comprises the National Committees of the following countries.

Austria	Italy
Belgium	Luxemburg
Denmark	Netherlands
Finland	Norway
France	Portugal
Germany	Spain
Greece	Sweden
Iceland	Switzerland
Ireland	United Kingdom

This British Standard was published under the authority of the Board of BSI and comes into effect on 31 August 1990

© BSI 01-2000

First published as BS 89 October 1919
Second edition August 1926
Third edition September 1937
Fourth edition February 1954
Fifth edition March 1977
Published as BS 89-2 August 1990

The following BSI references relate to the work on this standard:
Committee reference PEL/13
Draft for comment 80/23262 DC

ISBN 0 580 18437 4

Amendments issued since publication

Amd. No.	Date of issue	Comments

Contents

	Page
Cooperating organizations	Inside front cover
National foreword	ii
Brief history	2
Text of EN 60051-2	5
National appendix W	Inside back cover

National foreword

This British Standard has been prepared under the direction of the Power Electrical Engineering Standards Policy Committee and is the English language version of EN 60051-2 “*Direct acting indicating analogue electrical measuring instruments and their accessories — Part 2: Special requirements for ammeters and voltmeters*”, published by the European Committee for Electrotechnical Standardization (CENELEC). It is identical to the English language version of IEC Publication 51-2 published by the International Electrotechnical Commission (IEC) as amended by the editorial corrections listed in the Technical text source on page 2.

For the purposes of this British Standard, any references to the IEC page numbers in the text should be ignored.

This Part of BS 89 together with Parts 1, 3, 4, 5, 6, 7, 8 and 9 of this Standard supersedes BS 89:1977, which is withdrawn.

BS 89 comprises the following parts which will be the English language version of the listed European Standards.

European Standard	Corresponding Part of BS 89
EN 60051-1	Part 1 <i>Specification for definitions and general requirements common to all parts</i>
EN 60051-2	Part 2 <i>Specification for special requirements for ammeters and voltmeters</i>
EN 60051-3	Part 3 <i>Specification for special requirements for wattmeters and varmeters</i>
EN 60051-4	Part 4 <i>Specification for special requirements for frequency meters</i>
EN 60051-5	Part 5 <i>Specification for special requirements for phase meters power factor meters and synchrosopes</i>
EN 60051-6	Part 6 <i>Specification for special requirements for ohmmeters (impedance meters) and conductance meters</i>
EN 60051-7	Part 7 <i>Specification for special requirements for multi-function instruments</i>
EN 60051-8	Part 8 <i>Specification for special requirements for accessories</i>
EN 60051-9	Part 9 <i>Recommended test methods</i>

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, the EN title page, pages 2 to 12, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

UDC: 621.317.725.037.33

Key words: Electrical measuring instruments; analogue indicating instruments; direct acting measuring instruments; accessories for electrical measuring instruments; ammeters; voltmeters

English version

**Direct acting indicating analogue electrical
measuring instruments and their accessories
Part 2: Special requirements for ammeters
and voltmeters**

(IEC 51-2:1984 edition 4)

Appareils mesureurs électriques indicateurs
analogiques à action directe et leurs accessoires
Deuxième partie: Prescriptions particulières
pour les ampèremètres et les voltmètres
(CEI 51-2:1984 édition 4)

Direkt wirkende anzeigende elektrische
Meßgeräte und ihr Zubehör Meßgeräte mit
Skalenanzeige Teil 2: Spezielle Anforderungen
für Strom- und Spannungs-Meßgeräte
(IEC 51-2:1984 Ausgabe 4)

This European Standard was ratified by CENELEC on 11 September 1989. CENELEC members are bound to comply with the requirements of the CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CENELEC Central Secretariat or to any CENELEC member.

This European Standard exists in three official versions (English, French and German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to CENELEC Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxemburg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

Central Secretariat: rue de Stassart 35, B-1050 Brussels

© CENELEC 1989 Copyright reserved to all CENELEC members

Brief history

The text of IEC Publication 51-2 (4th edition — 1984) was submitted to the CENELEC members for unique acceptance.

Technical text

The text of the International Standard IEC 51-2 (4th edition — 1984) was approved by CENELEC on 11 September 1989 as a European Standard with the following editorial correction to the English version:

Table II-2, note 3, paragraph a: delete the words “instrument” and “capability”.

The following dates are applicable:

- latest date of announcement of the EN at national level (doa): 1990-03-01
- date of latest publication of a new harmonized standard (dop): 1990-09-01
- date of withdrawal of conflicting national standards (dow): 1990-09-01

Foreword

- 1) The formal decisions or agreements of the IEC on technical matters, prepared by Technical Committees on which all the National Committees having a special interest therein are represented, express, as nearly as possible, an international consensus of opinion on the subjects dealt with.
- 2) They have the form of recommendations for international use and they are accepted by the National Committees in that sense.
- 3) In order to promote international unification, the IEC expresses the wish that all National Committees should adopt the text of the IEC recommendation for the national rules in so far as national conditions will permit. Any divergence between the IEC recommendation and the corresponding national rules should, as far as possible, be clearly indicated in the latter.

Preface

This standard has been prepared by IEC Technical Committee No. 85: Measuring Equipment for Basic Electrical Quantities (formerly Sub-Committee 13B: Electrical Measuring Instruments).

This fourth edition replaces the third edition of IEC Publication 51.

This standard constitutes Part 2.

The general layout for the revised Publication 51 is as follows:

- *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 are not complete in themselves and shall be read in conjunction with Part 1.

All of these parts are arranged in the same format and a standard relationship between subject and clause number is maintained throughout. In addition, tables, figures and appendices add a suffix to the part number in order to differentiate the parts. This re-arrangement will assist the reader of IEC Publication 51 to distinguish information relating to the different types of instruments.

The text of this standard is based upon the following documents:

Six Months' Rule	Report on Voting
13B(CO)94	13B(CO)101

Further information can be found in the Report on Voting indicated in the table above.

The following IEC publication is quoted in this standard:

Publication No. 185 (1966): Current Transformers.