

*Incorporating
Amendment No. 1 to
BS 5765 : 1979
(renumbers the BS as
BS EN 60524 : 1993)
and Amendment No. 1
to BS EN 60524 : 1993*

Direct-current resistive volt ratio boxes

The European Standard EN 60524 : 1993, with the incorporation of its amendment A2 : 1997, has the status of a British Standard

ICS 17.220.20

National foreword

This British Standard is the English language version of EN 60524 : 1993, including its amendment A2 : 1997. It is identical to IEC 60524 : 1975 and its Amendment 1 : 1981 and Amendment 2 : 1997.

The UK participation in its preparation was entrusted to Technical Committee PEL/85, Measuring equipment for electrical and electromagnetic quantities (formerly PEL/13), which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

A list of organizations represented on this committee can be obtained on request to its secretary.

Textual notes

The abbreviation 'ppM' denotes parts in 10^6 . More recent IEC publications use the abbreviation 'ppm', which is in common use.

No abbreviation is specified in IEC 61010-1, amendment 2, for pollution degree. In 8.4.1, Figure 1a and 8.4.2, Figure 1b, of this standard, the suggested abbreviation 'PD' has been used.

Cross references

The British Standards which implement international or European publications referred to in this document may be found in the BSI Standards Catalogue under the section entitled 'International Standards Correspondence Index', or by using the 'Find' facility of the BSI Standards Electronic Catalogue.

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Summary of pages

This document comprises a front cover, an inside front cover, the EN title page, pages 2 to 13 and a back cover.

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This British Standard, having been prepared under the direction of the Power Electrical Engineering Standards Committee, was published under the authority of the Executive Board and comes into effect on 15 July 1999

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Amendments issued since publication

Amd. No.	Date	Comments
7913	October 1993	Renumberd BS 5765 : 1979 as BS EN 60524 : 1993 and, implemented Amendment 1 to IEC 60524 : 1975
10279	July 1999	Indicated by a sideline

Descriptors: measuring instrument, resistive volt box, volt ratio box, direct-current volt ratio box

English version

Direct-current resistive volt ratio boxes

(includes amendment A2 : 1997)

(IEC 60524 : 1975 + A1 : 1981 and A2 : 1997)

Diviseurs de tension à résistances en courant
continu à rapports fixes
(inclut l'amendement A2 : 1997)
(CEI 60524 : 1975 + A1 : 1981 et A2 : 1997)

Gleichspannungs-Widerstandsteiler
(enthält Änderung A2 : 1997)
(IEC 60524 : 1975 + A1 : 1981 und A2 : 1997)

This European Standard was approved by CENELEC on 1993-03-09. Its amendment A2 was approved by CENELEC on 1997-10-01. CENELEC members are bound to comply with the CEN/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 Central Secretariat or to any CENELEC member.

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

CENELEC members are the national electrotechnical committees of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, 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

Foreword

At the request of 72 Technical Board, HD 614 S1 : 1992 (IEC 524 : 1975 + A1 : 1981) was submitted to the CENELEC voting procedure for conversion into a European Standard.

The text of the International Standard was approved by CENELEC as EN 60524 on 9 March 1993.

The following dates were fixed:

- latest date of publication of an identical national standard (dop) 1994-03-01
- latest date of withdrawal of conflicting national standards (dow) -

Foreword to amendment A2 : 1997

The text of document 85/169/FDIS, future amendment 2 to IEC 60524:1975, prepared by IEC TC 85, Measuring equipment for electromagnetic quantities, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as amendment A2 to EN 60524:1993 on 1997-10-01.

The following dates were fixed:

- latest date by which the amendment has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 1998-07-01
- latest date by which the national standards conflicting with the amendment have to be withdrawn (dow) 1998-07-01

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1. Scope

This standard applies to d.c. resistive volt ratio boxes with fixed ratios and having a rated input voltage up to 1.5 kV and having a class index of 0.1 [1 000 ppm (parts per million)] or better.

This standard applies to all equipment which is built-in or is supplied by the manufacturer (or responsible supplier) as an essential part of the volt ratio box.

This standard does not apply to auxiliary equipment.

2. Terms and definitions

For the purposes of this standard, the following definitions apply:

2.1 D.C. resistive volt ratio box (hereinafter designated "VRB")

A device consisting of a resistive network with fixed ratios providing an output voltage equal to a predetermined fraction of an input voltage. Both input and output voltages are each between a pair of terminals.

A VRB may have one or several ratios. In the latter case, there can be several inputs (Figure 1a) or several outputs (Figure 1b).

Note. — It is often used to act as a range multiplier for a d.c. potentiometer.

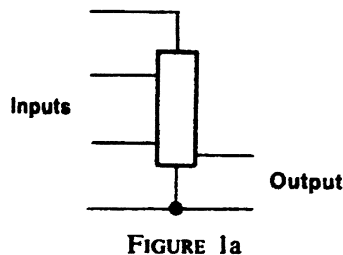


FIGURE 1a

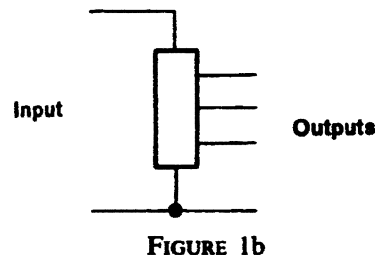


FIGURE 1b

2.2 Rated voltage(s)

The value(s) of voltage which occur in the designation of the VRB.

2.3 Nominal voltage ratio

The ratio between the rated input voltage and the rated output voltage.

2.4 True voltage ratio

The ratio of the voltage applied to the input to the open circuit output voltage.

2.5 Circuit insulation voltage (nominal circuit voltage)

The highest voltage with respect to earth which may be applied to a circuit(s) of the VRB so that the VRB is unlikely to become dangerous to touch.

This is the voltage for which the VRB has been constructed from the point of view of insulation.

Note. — Auxiliary circuits (if any) may have a different value of circuit insulation voltage (nominal circuit voltage).