

Fixed resistors for use in electronic equipment —

Part 9: Sectional specification — Fixed surface mount resistor networks with individually measurable resistors

The European Standard EN 60115-9:2004 has the status of a
British Standard

ICS 31.040.10

National foreword

This British Standard is the official English language version of EN 60115-9:2004. It is identical with IEC 60115-9:2003.

The UK participation in its preparation was entrusted to Technical Committee EPL/40X, Capacitors and resistors for electronic equipment, which has the responsibility to:

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- present to the responsible international/European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;
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Summary of pages

This document comprises a front cover, an inside front cover, the EN title page, pages 2 to 16, an inside back cover and a back cover.

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Fixed resistors for use in electronic equipment
Part 9: Sectional specification -
Fixed surface mount resistor networks
with individually measurable resistors
(IEC 60115-9:2003)

Résistances fixes utilisées
dans les équipements électroniques
Partie 9: Spécification intermédiaire -
Réseaux de résistances fixes montés
en surface avec des résistances
mesurables individuellement
(CEI 60115-9:2003)

Festwiderstände zur Verwendung
in Geräten der Elektronik
Teil 9: Rahmenspezifikation -
Oberflächenmontierbare Netzwerke
aus Festwiderständen mit einzeln
messbaren Widerständen
(IEC 60115-9:2003)

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CENELEC

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

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Foreword

The text of document 40/1344/FDIS, future edition 1 of IEC 60115-9, prepared by IEC TC 40, Capacitors and resistors for electronic equipment, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60115-9 on 2004-02-01.

The following dates were fixed:

- latest date by which the EN has to be implemented
at national level by publication of an identical
national standard or by endorsement (dop) 2004-11-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2007-02-01

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 60115-9:2003 was approved by CENELEC as a European Standard without any modification.

FIXED RESISTORS FOR USE IN ELECTRONIC EQUIPMENT –

Part 9: Sectional specification: Fixed surface mount resistor networks with individually measurable resistors

1 General

1.1 Scope

This part of IEC 60115 is applicable to fixed surface mount resistor networks with individually measurable resistors for use in electronic equipment.

1.2 Object

The object of this standard is to prescribe preferred ratings and characteristics and to select from IEC 60115-1, the appropriate Quality Assessment procedures, tests and measuring methods and to give general performance requirements for this type of resistor.

Test severities and requirements prescribed in detail specifications referring to this sectional specification must be of equal or higher performance level, because lower performance levels are not permitted.

1.3 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60063:1963, *Preferred number series for resistors and capacitors*
Amendment 1 (1967)
Amendment 2 (1977)

IEC 60068-1: *Environmental testing – Part 1: General and guidance*

IEC 60068-2-1: *Environmental testing – Part 2: Tests. Tests A: Cold*

IEC 60068-2-2: *Environmental testing – Part 2: Tests. Tests B: Dry heat*

IEC 60115-1:1999, *Fixed resistors for use in electronic equipment – Part 1: Generic specification*

1.4 Information to be given in a detail specification

Detail specifications shall be derived from the relevant blank detail specification.

Detail specifications shall not specify requirements inferior to those of the generic, sectional specification or blank detail specification.

When more severe requirements are included, they shall be listed in 1.8 of the detail specification and indicated in the test schedules, for example by an asterisk.

The following information shall be given in each detail specification and the values quoted shall preferably be selected from those given in the appropriate clause of this sectional specification.

1.4.1 Outline drawing and dimensions

There shall be an illustration of the surface mount resistor network as an aid to easy recognition and for comparison of the surface mount resistor network with others.

Dimensions and their associated tolerances, which affect interchangeability and mounting, shall be given in the detail specification. All dimensions shall be stated in millimetres.

Normally the numerical values shall be given for the length, width and thickness of the body.

Schematic diagrams and pin identifications shall be given in the detail specification. Those are prescribed in Annex A.

Configurations of terminations shall be given in the detail specification. Those are prescribed in Annex B.

When the outline drawing is other than described above, the detail specification shall state such dimensional information as will adequately describe the surface mount resistor network.

1.4.2 Mounting

The detail specification shall give guidance on methods of mounting for normal use. Mounting for test and measurement purposes (when required) shall be in accordance with 4.31 of IEC 60115-1.

1.4.3 Style (2.2.2 of IEC 60115-1)

The styles given in Table 1 are preferred. All dimensions are in mm.

Table 1 – Style and outline dimensions

Dimensions in mm					
Code	Length <i>L</i>	Width <i>W</i>	Thickness <i>T</i>	Diagram ^{a)}	Construction of terminals ^{a)}
1005X2	1 ± 0,1	1 ± 0,1	0,35 ± 0,1	A	Convex
1005X4	2 ± 0,1	1 ± 0,1	0,4 ± 0,15	A	Convex Concave
1608X2	1,6 ± 0,2	1,6 ± 0,2	0,55 ± 0,15	A	Convex Concave
1608X4	3,2 ± 0,2	1,6 ± 0,2	0,55 ± 0,15	A	Convex Concave
3216X4	5,08 ± 0,2	3,1 ± 0,2	0,55 ± 0,15	A	Convex Concave
3216	3,2 ± 0,2	1,6 ± 0,2	0,5 ± 0,15	B, C	Convex
4021	4 ± 0,2	2,1 ± 0,2	0,6 ± 0,15	D	Concave
6431	6,4 ± 0,2	3,1 ± 0,2	0,6 ± 0,15	B, C	Convex Concave
^{a)} Diagrams are shown in Annex A. Constructions of terminals are shown in Annex B.					