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National Standards Authority of Ireland
Údarás um Chaighdeáin Náisiúnta na hÉireann

IRISH STANDARD

I.S. EN 140100:2008

ICS 31.040.10

National Standards
Authority of Ireland
Glasnevin, Dublin 9
Ireland
Tel: +353 1 807 3800
Fax: +353 1 807 3838
http://www.nsai.ie

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SECTIONAL SPECIFICATION: FIXED LOW POWER FILM RESISTORS

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EUROPEAN STANDARD

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Sectional Specification: Fixed low power film resistors

Spécification intermédiaire: Résistances couche fixes à faible dissipation

Rahmenspezifikation: Schicht-Festwiderstände niedriger Belastbarkeit

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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

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Foreword

This European Standard was prepared by the Technical Committee CENELEC TC 40XB, Resistors.

The text of the draft was submitted to the Unique Acceptance Procedure and was approved by CENELEC as EN 140100 on 2007-10-01.

This European Standard supersedes EN 140100:1996 + A1:2001.

Compared to the superseded standard, the following changes have been implemented:

– modification of the title;

– introduction of a test on the resistance to electrostatic discharge;

– introduction of description and test methods for lead-free soldering;

– introduction of the code letters for temperature coefficient as given in EN 60062;

– adoption of the IECQ rules of procedure, QC 001002-3;

– editorial revision.

The preceding document on the subject covered by this specification has been CECC 40 100:1980.

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)	2008-10-01
– latest date by which the national standards conflicting with the EN have to be withdrawn	(dow)	2010-10-01

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1 General

1.1 Scope

This sectional specification prescribes the preferred values for characteristics and ratings and also the inspection requirements for fixed film resistors of assessed quality. These resistors generally have wire terminations and are primarily intended to be mounted directly on to printed boards. It selects from the generic specification, EN 60115-1, the appropriate methods of test to be used in detail specifications derived from this specification.

Associated with this specification are one or more blank detail specifications each referenced by an EN number. A blank detail specification which has been completed as specified in 1.2 of this specification forms a detail specification. Such detail specifications may be used for the grant of Qualification approval and for the performance of Quality conformance inspection in accordance with an established quality assessment system (e.g. the IECQ-CECC system).

1.2 Information to be specified in the 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 or blank detail specification. When more severe requirements are included, they shall be listed in a subclause of the detail specification and indicated in the test schedules, for example by an asterisk.

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

a) Outline drawing	There shall be an illustration of the resistor as an aid to easy recognition and for comparison of the resistor with others. Dimensions and their associated tolerances, which affect interchangeability and mounting, shall be given in the detail specification.
b) Style and dimensions	See 2.1.1. The dimensions shall be given for the length and diameter of the body, using the provisions of IEC 60294, and for the diameter of the terminations. Where the configuration is other than cylindrical with axial terminations, the detail specification shall specify such dimensional information as will adequately describe the resistor. The free termination length should be given for appropriate tape packing. The mass of the products may be given for information.
c) Climatic category	See 2.1.2.
d) Limits of resistance change after testing	See 2.1.4.
e) Resistance range	See 2.2.1. NOTE 1 When products approved to the detail specification may have different ranges, the following statement should be added: “The range of values available in each style is given in the register of approvals, available e.g. on the website www.iecq.org.“
f) Tolerances on rated resistance	See 2.2.2. NOTE 2 When products approved to the detail specification may have different ranges, the following statement should be added: “The range of values available in each style is given in the register of approvals, available e.g. on the website www.iecq.org.“
g) Temperature coefficient of resistance	See 2.1.3. For preferred combinations of temperature coefficient and tolerance on rated resistance see 2.2.7.

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