
Polimerni termistorji – Neposredno ogrevani s pozitivnim temperaturnim koeficientom – 1. del: Generična specifikacija (IEC 62319-1:2005)

Polymeric thermistors – Directly heated positive step function temperature coefficient – Part 1: Generic specification (IEC 62319-1:2005)

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EUROPEAN STANDARD

EN 62319-1

NORME EUROPÉENNE

EUROPÄISCHE NORM

March 2005

ICS 31.040.30

English version

**Polymeric thermistors -
Directly heated positive step function temperature coefficient
Part 1: Generic specification
(IEC 62319-1:2005)**

Thermistances polymères -
Coefficient de température positif
de fonction échelon à chauffage direct
Partie 1: Spécification générique
(CEI 62319-1:2005)

Temperaturabhängige Widerstände
aus Polymerwerkstoffen -
Direkt geheizte temperaturabhängige
Widerstände mit positivem
Temperaturkoeffizienten
Teil 1: Fachgrundspezifikation
(IEC 62319-1:2005)

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This European Standard was approved by CENELEC on 2005-02-01. 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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, 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

The text of document 40/1505/FDIS, future edition 1 of IEC 62319-1, 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 62319-1 on 2005-02-01.

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) 2005-12-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2008-02-01

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 62319-1:2005 was approved by CENELEC as a European Standard without any modification.

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Annex ZA (normative)

Normative references to international publications with their corresponding European publications

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.

NOTE Where an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

| <u>Publication</u> | <u>Year</u> | <u>Title</u> | <u>EN/HD</u> | <u>Year</u> |
|--------------------|-----------------|--|----------------|--------------------|
| IEC 60027-1 | - ¹⁾ | Letter symbols to be used in electrical technology Part 1: General | HD 60027-1 | 2004 ²⁾ |
| IEC 60050 | Series | International Electrotechnical Vocabulary | EN 60050 | Series |
| IEC 60068-1 | - ¹⁾ | Environmental testing Part 1: General and guidance | EN 60068-1 | 1994 ²⁾ |
| IEC 60068-2-6 | - ¹⁾ | Part 2: Tests - Test Fc: Vibration (sinusoidal) | EN 60068-2-6 | 1995 ²⁾ |
| IEC 60068-2-14 | - ¹⁾ | Part 2: Tests - Test N: Change of temperature | EN 60068-2-14 | 1999 ²⁾ |
| IEC 60068-2-20 | - ¹⁾ | Part 2: Tests - Test T: Soldering | HD 323.2.20 S3 | 1988 ²⁾ |
| IEC 60068-2-21 | - ¹⁾ | Part 2-21: Tests - Test U: Robustness of terminations and integral mounting devices | EN 60068-2-21 | 1999 ²⁾ |
| IEC 60068-2-27 | - ¹⁾ | Part 2: Tests - Test Ea and guidance: Shock | EN 60068-2-27 | 1993 ²⁾ |
| IEC 60068-2-29 | - ¹⁾ | Part 2: Tests - Test Eb and guidance: Bump | EN 60068-2-29 | 1993 ²⁾ |
| IEC 60068-2-45 | - ¹⁾ | Part 2: Tests - Test Xa and guidance: Immersion in cleaning solvents | EN 60068-2-45 | 1992 ²⁾ |
| IEC 60294 | - ¹⁾ | Measurement of the dimensions of a cylindrical component having two axial terminations | - | - |
| IEC 60410 | - ¹⁾ | Sampling plans and procedures for inspection by attributes | - | - |
| IEC 60617 | database | Graphical symbols for diagrams | - | - |

¹⁾ Undated reference.

²⁾ Valid edition at date of issue.

| <u>Publication</u> | <u>Year</u> | <u>Title</u> | <u>EN/HD</u> | <u>Year</u> |
|--------------------|-----------------|--|--------------|-------------|
| IECQ 001002-3 | - ¹⁾ | IEC Quality Assessment System for Electronic Components (IECQ) - Rules of Procedure Part 3: Approval procedures | - | - |
| IECQ 001003 | - ¹⁾ | IEC Quality Assessment System for Electronic Components (IECQ) - Guidance documents | - | - |
| ISO 1000 | - ¹⁾ | SI units and recommendations for the use of their multiples and of certain other units | - | - |

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INTERNATIONAL STANDARD

IEC 62319-1

First edition
2005-02

Polymeric thermistors – Directly heated positive step function temperature coefficient –

Part 1: Generic specification

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**POLYMERIC THERMISTORS –
DIRECTLY HEATED POSITIVE STEP FUNCTION
TEMPERATURE COEFFICIENT –**

Part 1: Generic specification

FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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International Standard IEC 62319-1 has been prepared by IEC technical committee 40: Capacitors and resistors for electronic equipment.

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

| FDIS | Report on voting |
|--------------|------------------|
| 40/1505/FDIS | 40/1534/RVD |

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

The committee has decided that the contents of this publication will remain unchanged until the maintenance result date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

- reconfirmed;
- withdrawn;
- replaced by a revised edition, or
- amended.

A bilingual version of this publication may be issued at a later date.

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POLYMERIC THERMISTORS – DIRECTLY HEATED POSITIVE STEP FUNCTION TEMPERATURE COEFFICIENT –

Part 1: Generic specification

1 General

1.1 Scope

This part of IEC 62319 prescribes terms and methods of test for polymeric positive temperature coefficient thermistors, insulated and non-insulated types, typically intended for use in current limiting and overcurrent protection applications.

It establishes standard terms, inspection procedures and methods of test for use in detail specifications for Qualification Approval and for Quality Assessment Systems for electronic components.

1.2 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 60027-1: *Letter symbols to be used in electrical technology – Part 1: General*

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IEC 60050: *International Electrotechnical Vocabulary*

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

IEC 60068-2-6: *Environmental testing – Part 2: Tests – Test Fc: Vibration (sinusoidal)*

IEC 60068-2-14: *Environmental testing – Part 2: Tests – Test N: Change of temperature*

IEC 60068-2-20: *Environmental testing – Part 2: Tests – Test T: Soldering*

IEC 60068-2-21: *Environmental testing – Part 2-21: Tests – Test U: Robustness of terminations and integral mounting devices*

IEC 60068-2-27: *Environmental testing – Part 2: Tests – Test Ea and guidance: Shock*

IEC 60068-2-29: *Environmental testing – Part 2: Tests – Test Eb and guidance: Bump*

IEC 60068-2-45: *Environmental testing – Part 2: Tests – Test XA and guidance: Immersion in cleaning solvents*

IEC 60294: *Measurement of the dimensions of a cylindrical component having two axial terminations*

IEC 60410: *Sampling plans and procedures for inspection by attributes.*