

Thermistors - Directly heated positive step-function temperature coefficient - Part 1-1: Blank detail specification - Current limiting application - Assessment level EZ

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 60738-1-1:2008 sisaldab Euroopa standardi EN 60738-1-1:2008 ingliskeelset teksti.</p> <p>Standard on kinnitatud Eesti Standardikeskuse 24.07.2008 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.</p> <p>Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 29.04.2008.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 60738-1-1:2008 consists of the English text of the European standard EN 60738-1-1:2008.</p> <p>This standard is ratified with the order of Estonian Centre for Standardisation dated 24.07.2008 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.</p> <p>Date of Availability of the European standard text 29.04.2008.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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ICS 31.040.30

Võtmesõnad: assessment level ez, positive step-function, thermistor

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Kui Teil on küsimusi standardite autorikaitse kohta, palun võtke ühendust Eesti Standardikeskusega:
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English version

**Thermistors -
Directly heated positive step-function temperature coefficient -
Part 1-1: Blank detail specification -
Current limiting application -
Assessment level EZ
(IEC 60738-1-1:2008)**

Thermistances à basculement
à coefficient de température positif
à chauffage direct -
Partie 1-1: Spécification particulière
cadre -
Application de la limitation de courant -
Niveau d'assurance de la qualité EZ
(CEI 60738-1-1:2008)

Thermistoren -
Direkt geheizte temperaturabhängige
Widerstände mit positivem
Temperaturkoeffizienten -
Teil 1-1: Vordruck für Bauartspezifikation -
Anwendung als Strombegrenzer -
Bewertungsstufe EZ
(IEC 60738-1-1:2008)

This European Standard was approved by CENELEC on 2008-03-01. 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, Bulgaria, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the 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 40/1874/FDIS, future edition 3 of IEC 60738-1-1, 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 60738-1-1 on 2008-03-01.

This European Standard supersedes EN 60738-1-1:1999.

EN 60738-1-1:2008 contains changes with respect to the referenced subclauses of the revised generic specification EN 60738-1.

This standard is to be used in conjunction with EN 60738-1.

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) | 2008-12-01 |
| – latest date by which the national standards conflicting with the EN have to be withdrawn | (dow) | 2011-03-01 |

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 60738-1-1:2008 was approved by CENELEC as a European Standard without any modification.

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 When 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 60068-2-58	- ¹⁾	Environmental testing - Part 2-58: Tests - Test Td: Test methods for solderability, resistance to dissolution of metallization and to soldering heat of surface mounting devices (SMD)	EN 60068-2-58 + corr. December	2004 ²⁾ 2004
IEC 60410	1973	Sampling plans and procedures for inspection - by attributes		-
IEC 60738-1	2006	Thermistors - Directly heated positive temperature coefficient - Part 1: Generic specification	EN 60738-1	2006

¹⁾ Undated reference.

²⁾ Valid edition at date of issue.

INTRODUCTION

Blank detail specification

A blank detail specification is a supplementary document to the generic specification and contains requirements for style and layout and minimum content of detail specifications. Detail specifications not complying with these requirements shall not be considered as being in accordance with IEC specifications nor shall they so be described.

In the preparation of detail specifications the content of IEC 60738-1:2006,1.4 shall be taken into account.

The numbers between brackets on the first page correspond to the following information which shall be inserted in the position indicated.

Identification of the detail specification

- [1] The "International Electrotechnical Commission" or the National Standards Organization under whose authority the detail specification is drafted.
- [2] The IEC or National Standards number of the detail specification, date of issue and any further information required by the national system.
- [3] The number and issue number of the IEC or national generic specification.
- [4] The IEC number of the blank detail specification.

Identification of the thermistor

- [5] A short description of the type of thermistor.
- [6] Information on typical construction (if applicable).

NOTE When the thermistor is not designed for use on printed boards, this should clearly be stated in the detail specification in this position.

- [7] Outline drawing with main dimensions which are of importance for interchangeability and/or reference to the national or international documents for outlines. Alternatively, this drawing may be given in an annex to the detail specification.
- [8] Application or group of applications covered and/or assessment level.
- [9] Reference data on the most important properties, to allow comparison between the various thermistor types.

[1]	IEC 60738-1-1-XXX [2] QC 440001XXXXXX
ELECTRONIC COMPONENTS OF ASSESSED QUALITY IN ACCORDANCE WITH:	IEC 60738-1-1 [4] QC 440001
[3]	DIRECTLY HEATED POSITIVE STEP-FUNCTION TEMPERATURE COEFFICIENT THERMISTORS [5] FOR CURRENT LIMITING APPLICATION
Outline drawing: [see 1.2] [... angle projection]	MODIFIED FERRO-ELECTRIC [6] CERAMIC MATERIAL
[7] [Other shapes are permitted within the dimensions given]	Assessment level: EZ [8]

Information on the availability of components
qualified to this detail specification is given in
the Register of Approvals.

[9]

THERMISTORS – DIRECTLY HEATED POSITIVE STEP-FUNCTION TEMPERATURE COEFFICIENT –

Part 1-1: Blank detail specification – Current limiting application – Assessment level EZ

1 General data

1.1 Method(s) of mounting (to be inserted)

(See IEC 60738-1:2006, 7.30).

1.2 Dimensions

(All dimensions are in millimetres or inches and millimetres; it shall be stated which dimensions are suitable for gauging).

Dimensioned drawing(s) shall be given in the detail specification. If necessary, the dimensions may be listed in tabular form with reference to styles or codes.

1.3 Coating

The detail specification shall state

- a) whether the thermistor is insulated or non-insulated,
- b) the material,
- c) the colour, if applicable.

1.4 Terminations

The detail specification shall state whether the terminations are suitable for soldering. If they are not, suitable methods of connection shall be stated for example: welding, clamping or crimping.

1.5 Flammability

The detail specification shall state whether the thermistor is actively or passively flammable if applicable. The test method shall be given in the test schedule.

1.6 Resistance to solvents

The detail specification shall state whether the coating and the marking of the thermistor are solvent resistant if applicable. The test methods shall be given in the test schedule.

1.7 Packaging

The detail specification shall give the following information (if required):

- a) whether bulk packed or taped and if taped, drawing or references;
- b) the dimensions of the immediate packaging and the number of thermistors packed;
- c) the dimensions of the outer package and the number of immediate packages;

d) methods of disposal of the packaging material.

1.8 Electrical data/Ratings and characteristics

The detail specification shall give units and tolerances or limiting values for the following parameters. If necessary, electrical data may be listed in tabular form, with reference to styles and codes.

Upper/Lower category temperatures (UCT/LCT);

Operating temperature range at maximum voltage;

Maximum voltage ($U_{\max.}$);

Zero-power resistance (R_T);

Isolation voltage (insulated thermistors only);

Insulation resistance (insulated thermistors only);

Tripping current (I_t);

Maximum non-tripping current ($I_{\max. nt}$);

Residual current at $U_{\max.}$ (I_{res});

Maximum overload current (I_{mo});

Switching temperature (T_b) for information only.

1.9 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 60068-2-58, *Environmental testing – Part 2-58: Tests – Test Td: Test methods for solderability, resistance to dissolution of metallization and to soldering heat of surface mounting devices (SMD)*

IEC 60410:1973, *Sampling plans and procedures for inspection by attributes*

IEC 60738-1:2006, *Thermistors – Directly heated positive step-function temperature coefficient – Part 1: Generic specification*

1.10 Marking

The marking of the thermistors and package containing the thermistors shall be in accordance with the requirements of IEC 60738-1:2006, 5.2.

The details of the marking of the thermistors and package containing the thermistor shall be given in full in the detail specification.

1.11 Ordering information

Orders for thermistors covered by this specification shall contain, in clear or in coded form, the following minimum information:

- a) style reference;
- b) maximum continuous a.c. voltage;
- c) number and issue reference of the detail specification.