



SLOVENSKI STANDARD

SIST EN 60983:2001

01-marec-2001

Miniature lamps

Miniature lamps

Kleinlampen

Lampes miniatures

iTeh STANDARD PREVIEW
(standards.iteh.ai)

Ta slovenski standard je istoveten z: **EN 60983:1996**

[SIST EN 60983:2001](https://standards.iteh.ai/catalog/standards/sist/d110c0c1-d46b-4374-915e-f6f9727b193/sist-en-60983-2001)

<https://standards.iteh.ai/catalog/standards/sist/d110c0c1-d46b-4374-915e-f6f9727b193/sist-en-60983-2001>

ICS:

29.140.20 Žarnice z žarilno nitko Incandescent lamps

SIST EN 60983:2001

en

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 60983:2001

<https://standards.iteh.ai/catalog/standards/sist/d110c0c1-d46b-4374-915e-ff6f9727b193/sist-en-60983-2001>

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 60983

April 1996

ICS 29.140.20

Descriptors: Lighting equipment, lamp, halogen lamp, miniature lamp, definition, electrical characteristics, photometric characteristics, dimension, interchangeability, dimensional tolerances, life, mechanical strength

English version

**Miniature lamps
(IEC 983:1995)**

Lampes miniatures
(CEI 983:1995)

Kleinlampen
(IEC 983:1995)

**iTeh STANDARD PREVIEW
(standards.iteh.ai)**

SIST EN 60983:2001

<https://standards.iteh.ai/catalog/standards/sist/d110c0c1-345b-4374-915e-f6f9727b193/sist-en-60983-2001>

This European Standard was approved by CENELEC on 1996-03-05. 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, 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

The text of the International Standard IEC 983:1995, prepared by SC 34A, Lamps, of IEC TC 34, Lamps and related equipment, was submitted to the Unique Acceptance Procedure and was approved by CENELEC as EN 60983 on 1996-03-05 without any modification.

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) 1997-03-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 1997-03-01

Annexes designated "normative" are part of the body of the standard.
Annexes designated "informative" are given for information only.
In this standard, annexes A and ZA are normative and annex B is informative.
Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 983:1995 was approved by CENELEC as a European Standard without any modification.

SIST EN 60983:2001

<https://standards.iteh.ai/catalog/standards/sist/d110c0c1-d46b-4374-915e-f669727b193/sist-en-60983-2001>



Annex ZA (normative)**Normative references to international publications
with their corresponding European publications**

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

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>
-	-	Electrical apparatus for potentially explosive atmospheres - Caplights for mines susceptible to firedamp	EN 50033	1991
IEC 50(845)	1987	International electrotechnical vocabulary (IEV) Chapter 845: Lighting	-	-
IEC 61-1 + supplements (mod)	1969	Lamp caps and holders together with gauges for the control of interchangeability and safety Part 1: Lamp caps	EN 60061-1 + amendments	1993
IEC 434	1973	Aircraft electrical filament lamps	-	-
A1	1981		-	-
A2	1984		-	-
IEC 809 (mod)	1985	Lamps for road vehicles - Dimensional, electrical and luminous requirements		
+ A1	1987			
+ A2	1989			
+ A3	1992		HD 494 S4 ¹⁾	1994
ISO 2859-1	1989	Sampling procedures and tables for inspection by attributes	-	-

1) HD 494 S4 includes the corrigendum January 1993 to IEC 809.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 60983:2001

<https://standards.iteh.ai/catalog/standards/sist/d110c0c1-d46b-4374-915e-ff6f9727b193/sist-en-60983-2001>

NORME
INTERNATIONALE
INTERNATIONAL
STANDARD

CEI
IEC
983

Deuxième édition
Second edition
1995-02

Lampes miniatures

Miniature lamps

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 60983:2001

<https://standards.iteh.ai/catalog/standards/sist/d110c0c1-d46b-4374-915e-f6f9727b193/sist-en-60983-2001>

© CEI 1995 Droits de reproduction réservés — Copyright — all rights reserved

Aucune partie de cette publication ne peut être reproduite ni utilisée sous quelque forme que ce soit et par aucun procédé, électronique ou mécanique, y compris la photocopie et les microfilms, sans l'accord écrit de l'éditeur.

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the publisher.

Bureau Central de la Commission Electrotechnique Internationale 3, rue de Varembé Genève, Suisse



Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

CODE PRIX
PRICE CODE

V

Pour prix, voir catalogue en vigueur
For price, see current catalogue

CONTENTS

	Page
FOREWORD	5
Clause	
SECTION 1: GENERAL	
1.1 Scope	1-2
1.2 Normative references	1-2
1.3 Definitions	1-4
1.4 Marking	1-6
1.5 Requirements and tests	1-6
1.6 Data sheets	1-8
1.7 Recommended instructions for the use of halogen lamps	1-8
SECTION 2: LAMPS FOR SUPPLEMENTARY PURPOSES IN ROAD VEHICLES	
2.1 Scope	2-2
2.2 Definitions	2-2
2.3 Marking	2-2
2.4 Technical requirements and test procedures	2-2
2.5 Data sheets: Road vehicle lamps	2-6
SECTION 3: TORCH LAMPS	
3.1 Scope	3-2
3.2 Definitions	3-2
3.3 Marking	3-2
3.4 Technical requirements	3-2
3.5 Data sheets: Lamps for torches	3-6
SECTION 4: LAMPS FOR MINERS' CAPLIGHTS	
4.1 Scope	4-2
4.2 Definitions	4-2
4.3 Requirements	4-4
4.4 Sampling test quantities	4-8
4.5 Test methods	4-8
4.6 Compliance requirements	4-12
4.7 Conditions of compliance	4-14
4.8 Data sheets: Lamps for miners' caplights	4-18
Annexes	
A Auxiliary lamps	A-2
B Statistical basis of the tests	B-2

INTERNATIONAL ELECTROTECHNICAL COMMISSION

MINIATURE LAMPS

FOREWORD

- 1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the IEC is to promote international cooperation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, the IEC publishes International Standards. 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. The IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of the IEC on technical matters, prepared by technical committees on which all the National Committees having a special interest therein are represented, express, as nearly as possible, an international consensus of opinion on the subjects dealt with.
- 3) They have the form of recommendations for international use published in the form of standards, technical reports or guides and they are accepted by the National Committees in that sense.
- 4) In order to promote international unification, IEC National Committees undertake to apply IEC International Standards transparently to the maximum extent possible in their national and regional standards. Any divergence between the IEC Standard and the corresponding national or regional standard shall be clearly indicated in the latter.
- 5) The IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with one of its standards.

International Standard IEC 983 has been prepared by sub-committee 34A: Lamps, of IEC technical committee 34: Lamps and related equipment.

<https://standards.iteh.ai/catalog/standards/sist/d110c0c1-d46b-4374-915e-ff6f9727b193/sist-en-60983-2001>

This second edition cancels and replaces the first edition published in 1990 and amendment 1 (1990) and constitutes a technical revision.

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

DIS	Report on voting
34A(CO)701	34A/577/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.

Annex A forms an integral part of this standard.

Annex B is for information only.

MINIATURE LAMPS

Section 1: General

1.1 Scope

This International Standard specifies requirements for miniature halogen and non-halogen lamps with a nominal voltage up to 30 V and a nominal wattage up to 25 W. It covers:

- lamps to be used in road vehicles not subject to regulation and which therefore are not included in IEC 809 (section 2);
- lamps for electric torches (section 3);
- lamps for miners' caplights (section 4).

Aircraft lamps are standardized in IEC 434.

This standard specifies dimensional, electrical and photometric requirements as well as requirements concerning life and mechanical strength.

NOTE – Requirements are for production lamps. Individual lamps might not be completely within these requirements. Where conditions of compliance are required, they are specified in the relevant section.

(standards.iteh.ai)

1.2 Normative references

[SIST EN 60983:2001](https://standards.iteh.ai/catalog/standards/sist/d110c0c1-d46b-4374-915e-16097276199/sist-en-60983-2001)

<https://standards.iteh.ai/catalog/standards/sist/d110c0c1-d46b-4374-915e-16097276199/sist-en-60983-2001>

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All normative documents are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

IEC 50(845): 1987, *International Electrotechnical Vocabulary (IEV) – Chapter 845: Lighting*

IEC 61-1: 1969, *Lamp caps and holders together with gauges for the control of interchangeability and safety – Part 1: Lamp caps*

IEC 434: 1973, *Aircraft electrical filament lamps*
Amendment No. 1 (1981), Amendment No. 2 (1984)

IEC 809: 1985, *Lamps for road vehicles – Dimensional, electrical and luminous requirements*
Amendment No. 1 (1987), Amendment No. 2 (1989), Amendment No. 3 (1992)

ISO 2859: *Sampling procedures for inspection by attributes*

EN 50033, *Electrical apparatus for potentially explosive atmospheres – Caplights for mines susceptible to firedamp* [European standards]

1.3 Definitions

For the purposes of this International Standard, the following definitions apply.

1.3.1 lamp (incandescent): Source made in order to produce light by means of an element heated to incandescence by the passage of an electric current. [A combination of IEV 845-07-03 and IEV 845-07-04.]

1.3.2 tungsten halogen lamp: Gas-filled lamp containing halogens or halogen compounds, the filament being tungsten. [IEV 845-07-10]

1.3.3 nominal voltage: Voltage used to designate a lamp.

1.3.4 nominal wattage: Wattage used to designate a lamp.

1.3.5 test voltage: Voltage for which some characteristics of a lamp are specified and at which they shall be tested.

1.3.6 rated value: Quantity value for specified operating conditions of a component, device or equipment assigned by a manufacturer or specified in a product standard.

1.3.7 tolerance: Allowable variation from a specified value, generally expressed in per cent of this value.

1.3.8 limit value: Lowest and/or highest value for characteristics a lamp has to comply with when operated under test conditions.

1.3.9 Initial readings: Photometric and electrical values measured at the end of the ageing period.

1.3.10 ageing period: Period of time for which an unused lamp is operated in order to stabilize its photometric and electrical characteristics.

1.3.11 life: The total time for which a lamp has been operated before it becomes useless, or is considered to be so, according to specific criteria. [IEV 845-07-61]

NOTE – Lamp life is normally expressed in hours.

1.3.12 average life: Arithmetic mean of a number of individual life test results for lamps of the same type.

1.3.13 truncated average life: Arithmetic mean of a number of individual life test results, where the test for the purpose of this calculation is considered to be terminated after a predetermined period.

1.3.14 lumen maintenance: Ratio of the luminous flux of a lamp at a given time in its life to its initial luminous flux, the lamp being operated at test voltage. [IEV 845-07-65, modified].

NOTE – The ratio is generally expressed in per cent.

1.3.15 reference plane: Plane defined with reference to the cap or base and with respect to which the position of certain parts of the lamp are measured.

1.3.16 reference axis: Axis defined with reference to the cap or base and with respect to which the position of certain parts of the lamp are measured.

1.3.17 light centre length (LCL): Distance between the centre of the rectangle enclosing the luminous filament section or a defined point of the filament and the reference plane.

1.3.18 type: Lamps which differ in such essential characteristics as voltage, wattage or bulb design form different types. They are specified on the same lamp data sheet by different type numbers, e.g. 983-IEC-2251 and 983-IEC-2252 on lamp data sheet 983-IEC-2250.

1.4 Marking

Each lamp shall be legibly and durably marked with an identification to ensure correct replacement. Details for marking requirements and compliance conditions are specified in each section

1.5 Requirements and tests

1.5.1 Lamp dimensions

The outer lamp dimensions and the light centre length shall comply with the requirements specified on the relevant lamp data sheet.

1.5.2 Bulbs

Bulbs shall not contain scores or spots which might impair the optical performance of the lamp.

1.5.3 Caps

Caps shall comply with the requirements specified on the relevant standard sheet(s) of IEC 61.

Further requirements are specified in the relevant sections of this standard.

1.6 Data sheets

1.6.1 *Numbering system for data sheets and lamps*

The first number represents the number of this standard "983" followed by the letters "IEC".

The second number consists of a four-digit group. The first digit represents the relevant section of this standard, the second and third digits represent the sheet identifier and the fourth digit represents the lamp type except zero which is reserved as part of the sheet identifier.

The third number represents the edition of the data sheet page. In cases where a data sheet has more than one page, it is possible for the pages to have different edition numbers with the data sheet numbering remaining the same.

1.7 Recommended instructions for the use of halogen lamps

It is recommended that the following points are included in any instructions for use if supplied with tungsten halogen lamps covered by this standard:

- tungsten halogen lamps operate at high bulb temperatures and care should be taken to avoid touching the bulb under any circumstances;
- if lamps with a quartz bulb are touched, they should be cleaned before use with a lint-free cloth moistened with spirit (alcohol);
- lamps with scratched or otherwise damaged bulbs should not be used.

NOTE – In some instances, lamp manufacturers give information that the lamp contains gas under pressure and recommend protective measures when handling it.