



# SLOVENSKI STANDARD

## SIST EN 60679-3:2013

01-september-2013

Nadomešča:  
SIST EN 60679-3:2002

---

### Kristalni oscilatorji ocenjene kakovosti - 3. del: Standardni okrovi in priključki

Quartz crystal controlled oscillators of assessed quality - Part 3: Standard outlines and lead connections

/

iTeh STANDARD PREVIEW

Oscillateurs pilotés par quartz sous assurance de la qualité - Partie 3: Encombrements normalisés et connexions des sorties

[SIST EN 60679-3:2013](https://standards.iteh.ai/catalog/standards/sist/05e1dd4f-61cc-45de-9063-5b7/sist-en-60679-3-2013)

<https://standards.iteh.ai/catalog/standards/sist/05e1dd4f-61cc-45de-9063-5b7/sist-en-60679-3-2013>

**Ta slovenski standard je istoveten z: EN 60679-3:2013**

---

#### **ICS:**

31.140

Piezoelektrične in  
dielektrične naprave

Piezoelectric and dielectric  
devices

**SIST EN 60679-3:2013**

**en**

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

SIST EN 60679-3:2013

<https://standards.iteh.ai/catalog/standards/sist/05e1dd4f-61cc-45de-9063-b33d8e925f37/sist-en-60679-3-2013>

EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 60679-3**

July 2013

ICS 31.140

Supersedes EN 60679-3:2001

English version

**Quartz crystal controlled oscillators of assessed quality -  
Part 3: Standard outlines and lead connections  
(IEC 60679-3:2012)**

Oscillateurs pilotés par quartz sous  
assurance de la qualité -  
Partie 3: Encombrements normalisés  
et connexions des sorties  
(CEI 60679-3:2012)

Quarzoszillatoren mit bewerteter Qualität -  
Teil 3: Norm-Gehäusemaße und  
Anschlussdrähte  
(IEC 60679-3:2012)

**iTeh STANDARD PREVIEW**

This European Standard was approved by CENELEC on 2013-01-18. 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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

**CENELEC**

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

**Management Centre: Avenue Marnix 17, B - 1000 Brussels**

## Foreword

The text of document 49/1009/FDIS, future edition 3 of IEC 60679-3, prepared by IEC/TC 49 "Piezoelectric, dielectric and electrostatic devices and associated materials for frequency control, selection and detection" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60679-3:2013.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2014-01-12
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2016-01-18

This document supersedes EN 60679-3:2001.

EN 60679-3:2013 includes the following significant technical changes with respect to EN 60679-3:2001:

- CO 01, CO 07, CO 10, CO 17 and CO 18 were deleted;
- the current pin layout of CO 06 was deleted;
- new pin layout of CO 06 was added as CO 40;
- new layout of CO 15 was added as CO 41;
- two new enclosures, CO 42 and CO 43 were added.

Therefore revised edition includes 15 types of enclosures as in Table 1 of Clause 5.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC [and/or CEN] shall not be held responsible for identifying any or all such patent rights.

## Endorsement notice

The text of the International Standard IEC 60679-3:2012 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60679-1:2007	NOTE	Harmonised as EN 60679-1:2007 (not modified).
IEC 60679-4:1997	NOTE	Harmonised as EN 60679-4:1998 (not modified).
IEC 60679-4-1:1998	NOTE	Harmonised as EN 60679-4-1:1998 (not modified).
IEC 60679-5:1998	NOTE	Harmonised as EN 60679-5:1998 (not modified).
IEC 60679-5-1:1998	NOTE	Harmonised as EN 60679-5-1:1998 (not modified).
ISO 1101	NOTE	Harmonised as EN ISO 1101.



IEC 60679-3

Edition 3.0 2012-12

# INTERNATIONAL STANDARD

## NORME INTERNATIONALE

Quartz crystal controlled oscillators of assessed quality –  
Part 3: Standard outlines and lead connections

Oscillateurs pilotés par quartz sous assurance de la qualité –  
Partie 3: Encombrements normalisés et connexions des sorties

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

COMMISSION  
ELECTROTECHNIQUE  
INTERNATIONALE

PRICE CODE  
CODE PRIX

T

ICS 31.140

ISBN 978-2-83220-569-3

**Warning! Make sure that you obtained this publication from an authorized distributor.  
Attention! Veuillez vous assurer que vous avez obtenu cette publication via un distributeur agréé.**

## CONTENTS

FOREWORD.....	3
1 Scope.....	5
2 Guidance for the standardization of outline drawings for frequency control and selection devices.....	5
3 Dimensions of crystal oscillator enclosure.....	7
4 Lead connections.....	7
5 Designation of crystal oscillator enclosure.....	7
Annex A (normative) Lead connections of crystal oscillators – Type CO 02 to CO 43.....	23
Bibliography.....	25
Figure 1 – Guidance for outline drawings.....	6
Table 1 – Designation of crystal oscillator enclosures.....	7
Table A.1 – Lead connections of crystal oscillators – Type CO 02 to CO 43 (1 of 2).....	23

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

SIST EN 60679-3:2013

<https://standards.iteh.ai/catalog/standards/sist/05e1dd4f-61cc-45de-9063-b33d8e925f37/sist-en-60679-3-2013>

## INTERNATIONAL ELECTROTECHNICAL COMMISSION

---

**QUARTZ CRYSTAL CONTROLLED OSCILLATORS  
OF ASSESSED QUALITY –**
**Part 3: Standard outlines and lead connections****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.
- 2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
- 3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
- 4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
- 5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC marks of conformity. IEC is not responsible for any services carried out by independent certification bodies.
- 6) All users should ensure that they have the latest edition of this publication.
- 7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 60679-3 has been prepared by IEC technical committee 49: Piezoelectric, dielectric and electrostatic devices and associated materials for frequency control, selection and detection.

This third edition cancels and replaces the second edition issued in 2001. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- CO 01, CO 07, CO 10, CO 17 and CO 18 were deleted;
- The current pin layout of CO 06 was deleted. And new pin layout of CO 06 was added as CO 40;
- New layout of CO 15 was added as CO 41;
- Two new enclosures, CO 42 and CO 43 were added.

Therefore revised edition includes 15 types of enclosures as in Table 1 of Clause 5.

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

FDIS	Report on voting
49/1009/FDIS	49/1021/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.

A list of all parts of the IEC 60679 series, published under the general title *Quartz crystal controlled oscillators of assessed quality*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the stability 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.

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

[SIST EN 60679-3:2013](#)

<https://standards.iteh.ai/catalog/standards/sist/05e1dd4f-61cc-45de-9063-b33d8e925f37/sist-en-60679-3-2013>

## QUARTZ CRYSTAL CONTROLLED OSCILLATORS OF ASSESSED QUALITY –

### Part 3: Standard outlines and lead connections

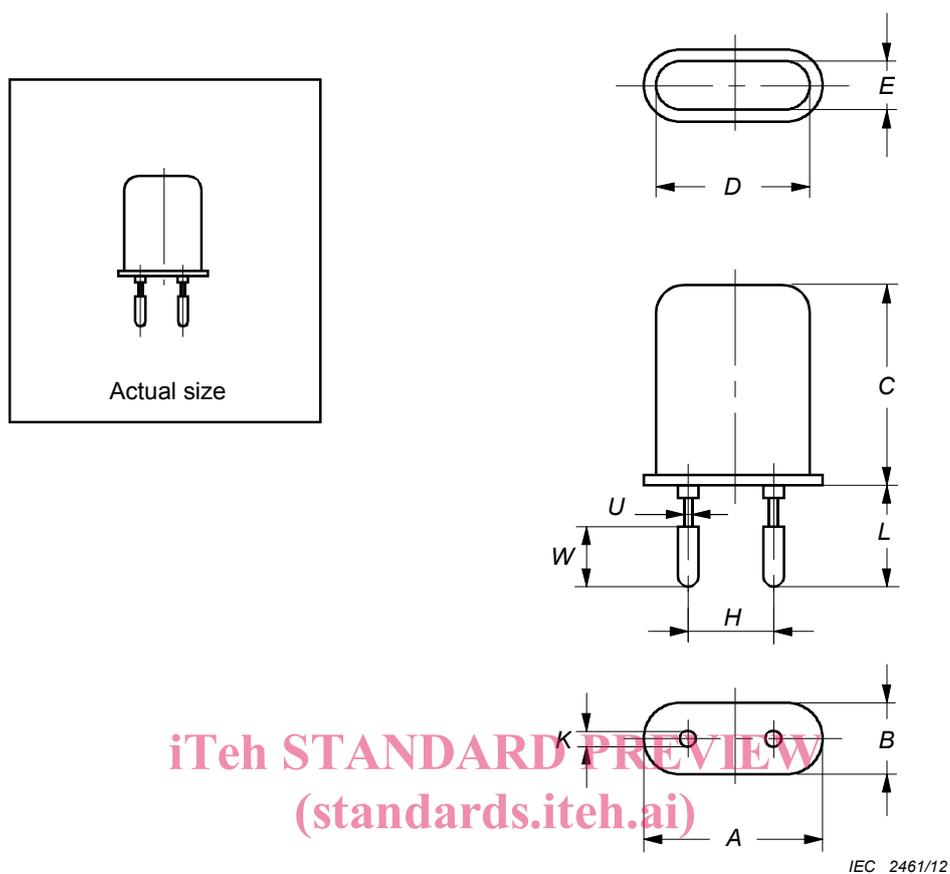
#### 1 Scope

This part of IEC 60679 specifies the outline dimensions and lead connections for quartz crystal controlled oscillators with lead enclosures.

#### 2 Guidance for the standardization of outline drawings for frequency control and selection devices

In order to achieve a uniform presentation of outline drawings for frequency control and selection devices, the following shall be considered.

- a) An outline drawing shall show all dimensional and geometrical characteristics of an enclosure necessary to ensure mechanical interchangeability with all other enclosures of the same outline. Enlarged and detailed view may be used, if necessary.
- b) The outline drawing shall consist of three parts:
  - 1) A drawing with dimensional symbols (capital letter) as shown in Figure 1 with applicable footnotes, if necessary.
  - 2) A tabular listing relating to the drawing symbol to the actual dimensions. Where possible, this shall be shown on the same page as the drawing.
  - 3) An "actual-size" sketch (scale 1:1).
- c) The outline drawing shall be executed in the third-angle projection.
- d) The function and identification of the lead connections (termination) shall be determined by agreement between the supplier and user. They shall not be defined on the outline drawing.
- e) Descriptive footnotes may be used at the bottom of/ or adjacent to, the drawing with proper reference to the body of the drawing.
- f) All dimensions shall be in millimeters.
- g) Outline dimensions *A*, *B*, *C*, *D* and *E* shall be listed with maximum values only.
- h) If there are plural identical enclosures with different height (*C*), *C* shall be expressed with a suffix number such as *C*<sub>1</sub>, *C*<sub>2</sub>, etc. The following letter and number after the basic type number (four digits) indicate the enclosure height and lead length. The identity references are given in the table in the sheet.
- i) Lead (termination) cross-sectional dimensions shall be listed with minimum and maximum values. If applicable, nominal dimensions may be added.
- j) The spacing of the leads (termination) – symbol *H* – shall be listed with minimum, nominal and maximum dimensions.



IEC 2461/12

SIST EN 60679-3:2013

<https://standards.iteh.ai/catalog/standards/sist/05e1dd4f-61cc-45de-9063-b33d8e925b7/sist-en-60679-3-2013>

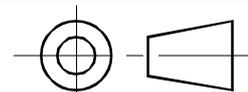
Ref.	Dimensions (mm)			Footnotes
	Min.	Nom.	Max.	
A	—	—	X	
B	—	—	X	
C	—	—	X	
D	—	—	X	
E	—	—	X	
H	X	X	X	
K	X	—	X	1
L	X	—	X	
U	X	—	—	2
W	X	—	—	2

1

2

Figure 1 – Guidance for outline drawings

Scale  
2:1



Sheet – number

- k) Leads (terminations) for soldering application shall be specified with the minimum length dimensions (symbol  $L$ ) only.

Lead (termination) for plug-in application shall be specified with minimum and maximum length dimensions.

- l) If leads (terminations) are provided with an undercut, dimensions  $U$  and  $W$  shall be listed with minimum dimensions only.

### 3 Dimensions of crystal oscillator enclosure

The dimensions in this standard apply to the completed quartz crystal controlled oscillators.

Only those dimensions which meet the requirements of the guidance for standardization of outline drawings are given (see Clause 2).

### 4 Lead connections

Recommendations for the lead connections of quartz crystal controlled oscillators are given in Annex A to this standard. Lead connections shall always be given in the detail specification.

### 5 Designation of crystal oscillator enclosure

**Table 1 – Designation of crystal oscillator enclosures**  
(standards.iteh.ai)

No.	Type	Sheet No.	Description
1	CO 02 A1 CO 02 B1	Sheet 1	Metal enclosure, welded, 4 to 18 lead crystal oscillator outline
2	CO 05 B1	Sheet 2	Metal enclosure, welded, eight lead crystal oscillator outline
3	CO 08 A1 CO 08 B1 CO 08 C1	Sheet 3	Metal enclosure, five lead crystal oscillator outline
4	CO 09 A1 CO 09 B1	Sheet 4	Metal enclosure, five lead crystal oscillator outline
5	CO 15 B1 CO 15 C1	Sheet 5	Metal enclosure, five lead crystal oscillator outline
6	CO 16 A1 CO 16 B1 CO 16 C1	Sheet 6	Metal enclosure, four lead crystal oscillator outline
7	CO 19 A1 CO 19 B1	Sheet 7	Metal enclosure, five lead crystal oscillator outline
8	CO 21 A1	Sheet 8	Metal enclosure, welded, four lead crystal oscillator outline
9	CO 22 A1	Sheet 9	Plastic, moulded or ceramic, solder-glass sealed eight lead crystal oscillator outline
10	CO 23 B1	Sheet 10	Metal enclosure, welded, eight lead crystal oscillator outline
11	CO 24 A1	Sheet 11	Metal enclosure, four lead crystal oscillator outline
12	CO 40	Sheet 12	Metal enclosure, five lead crystal oscillator outline
13	CO 41 A1 CO 41 B1	Sheet 13	Metal enclosure, four lead crystal oscillator outline
14	CO 42	Sheet 14	Metal enclosure, four lead crystal oscillator outline
15	CO 43 A1 CO 43 B1 CO 43 C1	Sheet 15	Metal enclosure, five lead crystal oscillator outline