

Quartz crystal controlled oscillators of assessed quality —

Part 3: Standard outlines and lead connections

The European Standard EN 60679-3:2001 has the status of a
British Standard

ICS 31.140

National foreword

This British Standard is the official English language version of EN 60679-3:2001. It is identical with IEC 60679-3:2001.

The UK participation in its preparation was entrusted to Technical Committee EPL/49, Piezo-electric devices for frequency control and selection, which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible international/European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

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Cross-references

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Quartz crystal controlled oscillators of assessed quality
Part 3: Standard outlines and lead connections
(IEC 60679-3:2001)

Oscillateurs pilotés par quartz sous
assurance de la qualité
Partie 3: Encombrements normalisés et
connexions des sorties
(CEI 60679-3:2001)

Quarzoszillatoren mit bewerteter Qualität
Teil 3: Norm-Gehäusemaße und
Anschlussdrähte
(IEC 60679-3:2001)

This European Standard was approved by CENELEC on 2001-10-01. 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.

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CENELEC

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

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Foreword

The text of document 49/495/FDIS, future edition 2 of IEC 60679-3, prepared by IEC TC 49, Piezoelectric and dielectric devices for frequency control and selection, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60679-3 on 2001-10-01.

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) 2002-07-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2004-10-01

Annexes designated "normative" are part of the body of the standard.
In this standard, annex A is normative.

Endorsement notice

The text of the International Standard IEC 60679-3:2001 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 | NOTE | Harmonized as EN 60679-1:1998 (not modified). |
| IEC 60679-4 | NOTE | Harmonized as EN 60679-4:1998 (not modified). |

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INTRODUCTION

The first edition of IEC 60679-3 (1989), its amendment and supplement contained 52 enclosure types showing the dimensional and geometrical characteristics of these enclosures. Since its release, due to progress in technology, many of the enclosures given in the standard have become obsolete.

Bearing this in mind, technical committee 49 has issued a questionnaire on all outlines contained in IEC 60679-3. Based on the replies received, technical committee 49 made a decision at the meeting held in Rotterdam in June 1996 to retain only enclosures which remained in "wide usage". These enclosures are specified in the present standard.

The following 25 enclosure types have been deleted from the first edition of 60679-3 (1989) and its amendment and supplement:

CO 03 A1	CO 04 A1	CO 04 B1	CO 05 A1	CO 06 B.	CO 06 C.	CO 06 .1
CO 06 .2	CO 07 B.	CO 07 C.	CO 07 D.	CO 10 B1	CO 11 A1	CO 12 A1
CO 13 A1	CO 13 B1	CO 14 A1	CO 15 A1	CO 17 C1	CO 18 A1	CO 18 C1
CO 19 .2	CO 20 A1	CO 23 A1	CO 23 C1			

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 all outline drawings for frequency control and selection devices, the following guide shall be considered.

2.1 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 outlines. Enlarged detail view may be used, if necessary.

2.2 The outline drawing shall consist of three parts:

2.2.1 A drawing with dimensional symbols (capital letters) as shown in figure 1 below with applicable notes, if necessary.

2.2.2 A tabular listing relating the drawing symbols to the actual dimensions. Where possible, this shall be shown on the same page as the drawing.

2.2.3 An “actual-size” sketch (scale:1:1).

2.3 The outline drawing shall be executed in the third-angle projection.

2.4 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.

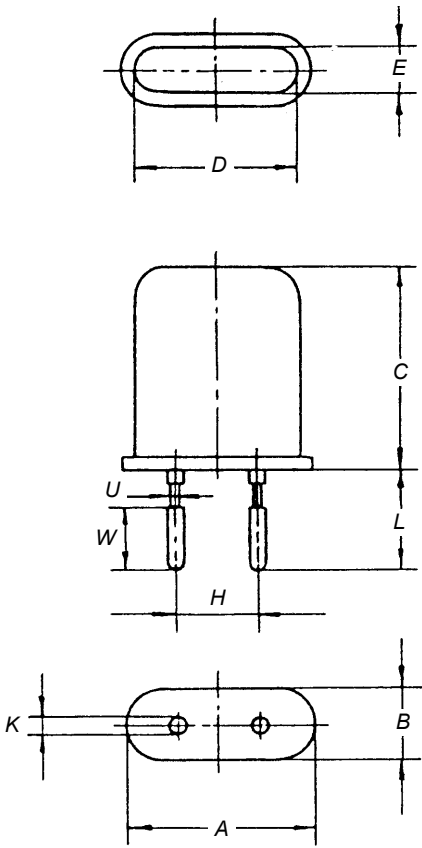
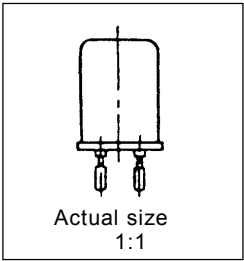
2.5 Descriptive notes may be used at the bottom of, or adjacent to, the drawing with proper reference to the body of the drawing.

2.6 All dimensions shall be in millimetres.

2.7 Outline dimensions *A*, *B*, *C*, *D* and *E* shall be listed with maximum values only.

2.8 Lead (termination) cross-sectional dimensions shall be listed with minimum and maximum values. If applicable, nominal dimensions may be added.

2.9 The spacing of the leads (termination) – symbol *H* – shall be listed with minimum, nominal and maximum dimensions.



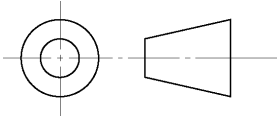
IEC 876/01

Ref.	Dimensions (mm)			Notes
	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

NOTE 1....
NOTE 2....

Figure 1 – Guidance for outline drawings

Scale
2:1



Sheet --

Date:

Documents

2.10 Leads (terminations) for soldering applications shall be specified with the minimum length dimensions (symbol L) only.

Leads (terminations) for plug-in applications shall be specified with minimum and maximum length dimensions.

2.11 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.

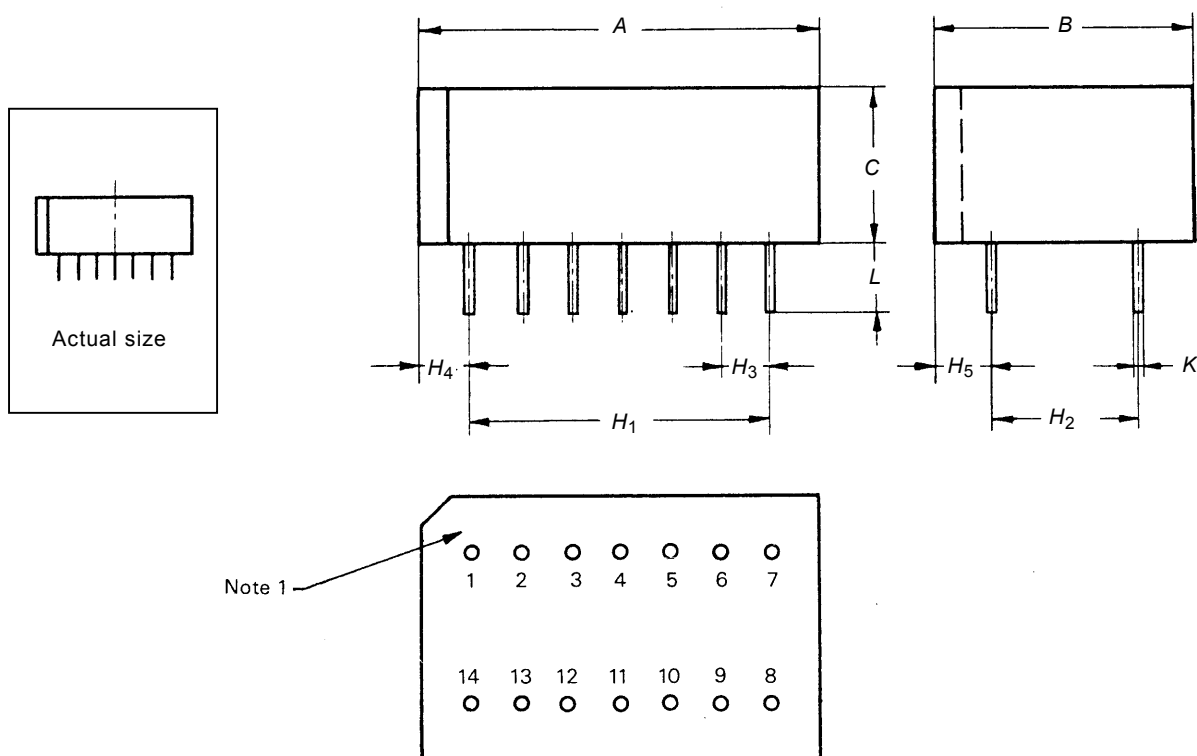
5 Designation of crystal oscillator enclosures

Table 1 – Designation of crystal oscillator enclosures

No.	Type	Sheet No.	Description
1	CO 01 A1	Sheet 1	Plastic enclosure, 4 to 14 lead crystal oscillator outline
2	CO 02 A1 CO 02 B1	Sheet 2	Metal enclosure, welded, 4 to 18 lead crystal oscillator outline
3	CO 05 B1	Sheet 3	Metal enclosure, welded, eight lead crystal oscillator outline
4	CO 06 A1	Sheet 4	Metal enclosure, four lead crystal oscillator outline
5	CO 07 A1	Sheet 5	Metal enclosure, four to seven lead crystal oscillator outline
6	CO 08 A1 CO 08 B1 CO 08 C1	Sheet 6	Metal enclosure, five lead crystal oscillator outline
7	CO 09 A1 CO 09 B1	Sheet 7	Metal enclosure, five lead crystal oscillator outline
8	CO 10 A1	Sheet 8	Metal enclosure, five lead crystal oscillator outline
9	CO 15 B1 CO 15 C1	Sheet 9	Metal enclosure, five lead crystal oscillator outline
10	CO 16 A1 CO 16 B1 CO 16 C1	Sheet 10	Metal enclosure, four lead crystal oscillator outline

Table 1 – Designation of crystal oscillator enclosures (*continued*)

No.	Type	Sheet No.	Description
11	CO 17 A1 CO 17 B1	Sheet 11	Metal enclosure, four lead crystal oscillator outline
12	CO 18 B1	Sheet 12	Metal enclosure, four lead crystal oscillator outline
13	CO 19 A1 CO 19 B1	Sheet 13	Metal enclosure, five lead crystal oscillator outline
14	CO 21 A1	Sheet 14	Metal enclosure, welded, four lead crystal oscillator outline
15	CO 22 A1	Sheet 15	Plastic moulded or ceramic, solder-glass sealed eight lead crystal oscillator outline
16	CO 23 B1	Sheet 16	Metal enclosure, welded, eight lead crystal oscillator outline
17	CO 24 A1	Sheet 17	Metal enclosure, four lead crystal oscillator outline



IEC 877/01

Ref.	Dimensions (mm)			Identity reference	Notes
	Min.	Nom.	Max.		
A	—	—	20,83		
B	—	—	13,21		
C	—	—	7,62	CO 01 A.	3
H ₁	14,94	15,24	15,54		
H ₂	7,32	7,62	7,92		
H ₃	2,30	2,54	2,70		
H ₄	2,30	2,54	2,70		
H ₅	2,30	2,54	2,70		
K	0,254	—	0,533		2
L	3,05	—	—	CO 01 .1	3

NOTE 1 An indication shall be provided to locate the position of lead No. 1 (a corner notch is shown on the drawing as an example).

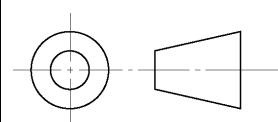
NOTE 2 Leads may be round, square or rectangular but shall not exceed $K_{\min}$ and $K_{\max}$.

NOTE 3 The complete identity for any oscillator outline is a six digit type number consisting of the basic type number (four digits) followed by a letter indicating the enclosure height and a number indicating the lead length. The identity references are given in the table, where a dot indicates the missing information which is given on another line.

CO 01 A1 is therefore the complete identity for this enclosure.

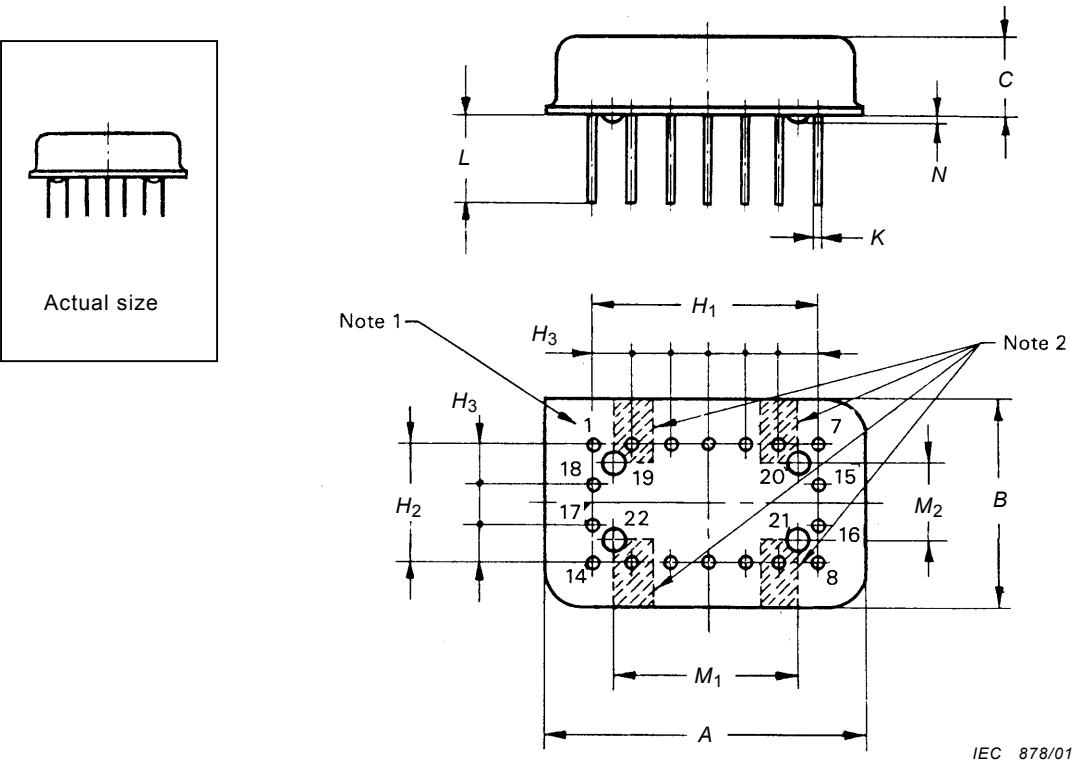
Plastic enclosure, 4 to 14 lead crystal oscillator outline – Type CO 01

Scale
2:1



Sheet 1

Date: 2001-07



Ref.	Dimensions (mm)			Identity reference	Notes
	Min.	Nom.	Max.		
A	–	–	20,70		
B	–	–	13,10		
C ₁	–	–	5,10	CO 02 A.	5
C ₂	–	–	6,60	CO 02 B.	5
H ₁	14,94	15,24	15,54		
H ₂	7,32	7,62	7,92		
H ₃	2,30	2,54	2,70		
K	0,40	–	0,53		3
L	5,85	–	–	CO 02 .1	5
M ₁	–	12,20	–		2
M ₂	–	4,58	–		2
N	–	–	0,75		

Metal enclosure, welded, 4 to 18 lead crystal oscillator outline – Type CO 02

Scale
2:1

