

Quartz crystal units of assessed quality —

Part 3: Standard outlines and lead connections

The European Standard EN 60122-3:2001 has the status of a
British Standard

ICS 31.140

National foreword

This British Standard is the official English language version of EN 60122-3:2001. It is identical with IEC 60122-3:2001. It supersedes BS 5069-1:1980 which is withdrawn.

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:

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- monitor related international and European developments and promulgate them in the UK.

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This British Standard, having been prepared under the direction of the Electrotechnical Sector Policy and Strategy Committee, was published under the authority of the Standards Policy and Strategy Committee on 13 December 2002

Summary of pages

This document comprises a front cover, an inside front cover, the EN title page, pages 2 to 31 and a back cover.

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Amendments issued since publication

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Quartz crystal units of assessed quality
Part 3: Standard outlines and lead connections
(IEC 60122-3:2001)

Résonateurs à quartz sous assurance de la qualité
Partie 3: Encombrements normalisés et connexions des sorties
(CEI 60122-3:2001)

Schwingquarze mit bewerteter Qualität
Teil 3: Norm-Gehäusemaße und Anschlussdrähte
(IEC 60122-3:2001)

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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 49/493/FDIS, future edition 3 of IEC 60122-3, 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 60122-3 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) 2002-01-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2004-10-01

Endorsement notice

The text of the International Standard IEC 60122-3:2001 was approved by CENELEC as a European Standard without any modification.

CONTENTS

	Page
INTRODUCTION.....	4
Clause	
1 Scope.....	5
2 Guidance for the standardization of outline drawings for frequency control and selection devices	5
3 Dimensions of quartz crystal unit enclosures	7
4 Designation of quartz crystal unit enclosures	7
Specification sheets 1 to 22	9 to 30
Bibliography.....	31

INTRODUCTION

The second edition of IEC 60122-3 (1977) and its amendments 1 to 4 contained 51 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 60122-3. 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 24 enclosure types have been deleted from the second edition of IEC 60122-3 (1977) and its amendments 1 to 4.

BG,	BG/1,	BH,	BH/1,	BH/2,	BJ,	BJ/1,
BJ/2,	CL,	DB,	DD,	DE,	DF,	DG,
DH,	EF,	EG,	CU 03 A.,	CU 03 B.,	CU 03 C.,	
CU 03 .1,	CU 03 .2,	CU 04 .2,	CU 05 D.			

QUARTZ CRYSTAL UNITS OF ASSESSED QUALITY –

Part 3: Standard outlines and lead connections

1 Scope

This part of IEC 60122 specifies the outline dimensions and lead connections of quartz crystal units 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 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 outline. 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 letter) as shown in figure 1 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.

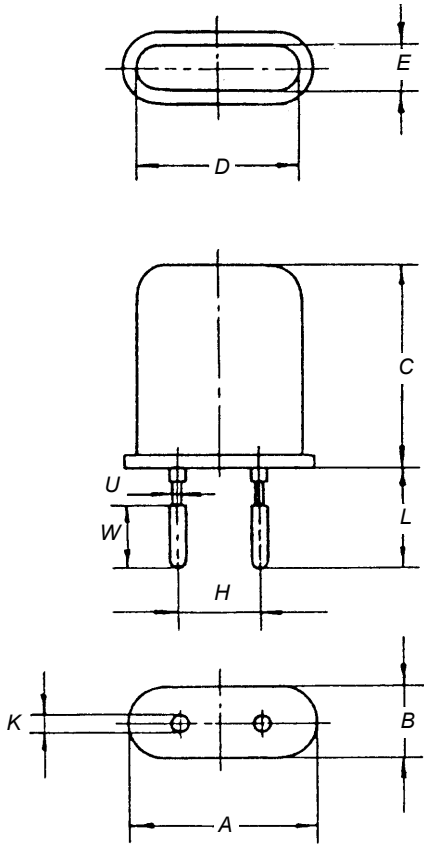
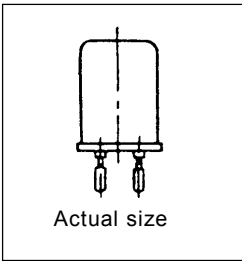
2.5 Descriptive notes may be used at the bottom of, or adjacent to, the drawing with proper reference to the body of the drawing.

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.



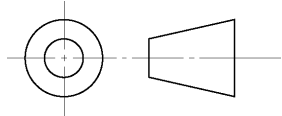
IEC 842/01

Ref.	Dimensions (mm)			Notes Types
	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:

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

Leads (terminations) for plug-in application 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 quartz crystal unit enclosures

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

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

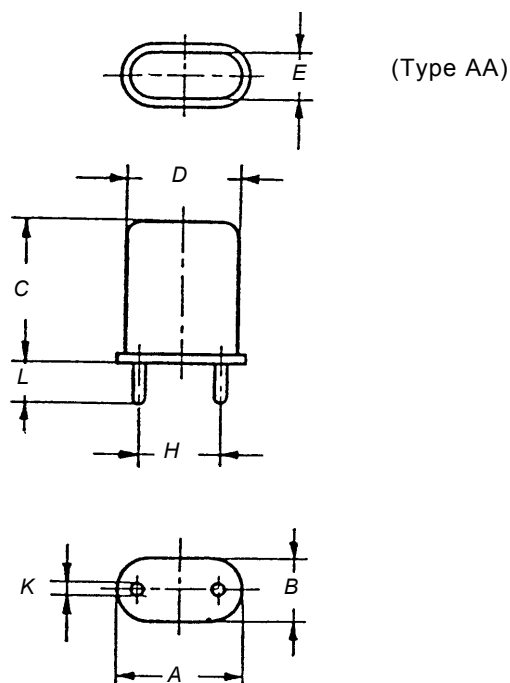
4 Designation of quartz crystal unit enclosures

Table 1 – Designation of quartz crystal unit enclosures

No.	Type	Sheet No.	Description
1	AA AB	Sheet 1	Metal, solder-sealed, two-lead crystal unit outline
2	BC BC/1	Sheet 2	Metal, solder-sealed, two-lead crystal unit outline
3	BF BF/1	Sheet 3	Metal, solder-sealed, two-lead crystal unit outline
4	CK, CM CN, CP	Sheet 4	Metal, welded, three-lead crystal unit outline
5	CX	Sheet 5	Metal, solder-sealed, two-lead crystal unit outline
6	CY, CY/1 CZ	Sheet 6	Glass, two-lead crystal unit outline
7	DA DC	Sheet 7	Glass, two-lead crystal unit outline
8	DK	Sheet 8	Metal, welded, three-lead crystal unit outline
9	DL	Sheet 9	Metal, welded, five-lead crystal unit outline
10	DN	Sheet 10	Metal, welded, two-lead crystal unit outline
11	DP EH	Sheet 11	Metal, welded, two-lead crystal unit outline
12	DQ	Sheet 12	Metal, welded, two-lead crystal unit outline
13	DR	Sheet 13	Metal, welded, four-lead crystal unit outline
14	DZ	Sheet 14	Metal, welded, two-lead crystal unit outline
15	DV	Sheet 15	Metal, solder-diffusion-sealed, two-lead cylindrical crystal unit outline

Table 1 – Designation of quartz crystal unit enclosures (continued)

No.	Type	Sheet No.	Description
16	DW	Sheet 16	Metal, solder-diffusion-sealed, two-lead cylindrical crystal unit outline
17	ED	Sheet 17	Metal, solder-diffusion-sealed, two-lead cylindrical crystal unit outline
18	EB, EJ EK	Sheet 18	Metal, welded, two-lead crystal unit outline
19	CU 01 A. CU 01 B. CU 01 C. CU 01 D. CU 01 E. CU 01 F.	Sheet 19	Metal, welded, two-lead crystal unit outline for automatic handling
20	CU 02 A. CU 02 B. CU 02 C. CU 02 D. CU 02 E. CU 02 F.	Sheet 20	Metal, welded, two-lead crystal unit outline for automatic handling
21	CU 04 A. CU 04 B. CU 04 C. CU 04 D.	Sheet 21	Metal, welded, two-lead crystal unit outline for automatic handling
22	CU 05 A. CU 05 B. CU 05 C.	Sheet 22	Metal, welded, two-lead crystal unit outline for automatic handling



IEC 843/01

Ref.	Dimensions (mm)			Notes Types
	Min.	Nom.	Max.	
A	—	—	19,23	3
B	—	—	8,94	3
C ₁	—	—	19,68	Type AA
C ₂	—	—	38,76	Type AB
D	—	—	18,41	
E	—	—	8,05	
H	12,14	12,35	12,55	
K	1,22	1,27	1,32	1
L	5,66	—	6,30	

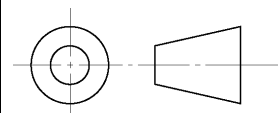
NOTE 1 Lead ends rounded.

NOTE 2 If required, leads may be provided with an undercut.

NOTE 3 A and B dimensions include an allowance for solder.

Metal, solder-sealed, two-lead crystal unit outline –
Type AA and AB

Scale
1:1



Sheet 1

Date: 2001-07



Documents

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