

Surface mounted piezoelectric devices for frequency control and selection — Standard outlines and terminal lead connections —

Part 1: Plastic moulded enclosure outlines

The European Standard EN 61837-1:1999 has the status of a
British Standard

ICS 31.140

National foreword

This British Standard is the English language version of EN 61837-1:1999. It is identical with IEC 61837-1:1999.

The UK participation in its preparation was entrusted to Technical Committee EPL/49, Piezoelectric 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

Attention is drawn to the fact that CEN and CENELEC Standards normally include an annex which lists normative references to international publications with their corresponding European publications. The British Standards which implement international or European publications referred to in this document may be found in the BSI Standards Catalogue under the section entitled “International Standards Correspondence Index”, or by using the “Find” facility of the BSI Standards Electronic Catalogue.

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Summary of pages

This document comprises a front cover, an inside front cover, the EN title page, pages 2 to 26, an inside back cover and a back cover.

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Amendments issued since publication

Amd. No.	Date	Comments

English version

Surface mounted piezoelectric devices for frequency control and selection
Standard outlines and terminal lead connections
Part 1: Plastic moulded enclosure outlines
(IEC 61837-1:1999)

Dispositifs piézoélectriques à montage
en surface pour la commande et le choix
de la fréquence - Encombrements
normalisés et connexions des sorties
Partie 1: Encombrements des
enveloppes en plastique moulées
(CEI 61837-1:1999)

Oberflächenmontierbare piezoelektrische
Bauteile zur Frequenzstabilisierung
und -Selektion
Norm-Gehäusemaße und Anschlüsse
Teil 1: Kunststoffgehäuse
(IEC 61837-1:1999)

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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.

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CENELEC

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

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Ref. No. EN 61837-1:1999 E

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Foreword

The text of document 49/431/FDIS, future edition 1 of IEC 61837-1, 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 61837-1 on 1999-05-01.

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) 2000-03-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2002-05-01

This Standard is to be used in conjunction with EN 61240:1997.

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

Endorsement notice

The text of the International Standard IEC 61837-1:1999 was approved by CENELEC as a European Standard without any modification.

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

IEC 60368-2-2 NOTE: Harmonized as EN 60368-2-2:1999 (not modified).

IEC 60679-1 NOTE: Harmonized as EN 60679-1:1998 (not modified).

INTRODUCTION

The demand for surface-mounted devices (SMD) for frequency control and selection increases every year and IEC 61240, has been prepared in response to this demand. It has been necessary to prepare separate standards covering individual SMD outlines and terminal lead connections based on the general rules in IEC 61240.

After several discussions on the matter within TC 49, a proposal was prepared covering 61 types of enclosure designs, which has been accepted and issued as a committee draft. There is, however, a risk that these will not be widely used, as too many kinds of reformed types of leaded crystal units have been issued.

After considerable discussion on this matter at the TC 49 meeting in Rotterdam, it has been decided that the individual SMDs available should be separated into three parts depending on the material used to fabricate the enclosure. The three parts are:

- moulded plastic enclosures which are dealt with in this standard;
- ceramic enclosures which will be dealt with in IEC 61837-2; and
- metal enclosures which will be dealt with in IEC 61837-3.

SURFACE MOUNTED PIEZOELECTRIC DEVICES FOR FREQUENCY CONTROL AND SELECTION – STANDARD OUTLINES AND TERMINAL LEAD CONNECTIONS –

Part 1: Plastic moulded enclosure outlines

1 Scope

This part of IEC 61837 deals with standard outlines and terminal lead connections as they apply to SMDs for frequency control and selection in plastic moulded enclosures and is based on IEC 61240.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of IEC 61837. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of IEC 61837 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of IEC and ISO maintain registers of currently valid International Standards.

IEC 61240:1994, *Piezoelectric devices – Preparation of outline drawings of surface-mounted devices (SMD) for frequency control and selection – General rules*

3 Configuration of enclosures

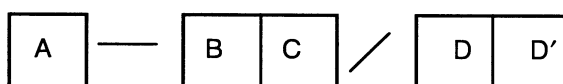
These enclosures are made of plastic moulded materials with the terminal leads based on Descriptive Designation System for Semiconductors – Devices Package.

The configuration symbols are shown as follows:

- DCC (dual chip carrier);
- QCC (quad chip carrier);
- SIP (single in-line package).

4 Designation of types

The designation of types is shown on the four parts as follows:



A: Configuration symbol of enclosures:

- DCC (dual chip carrier);
- QCC (quad chip carrier);
- SIP (single in-line package).

B: Structure of terminal leads:

- L: leaded type;
- J: folded leads type.

C: Number of terminal leads

D: Serial number of two figures

5 Plastic moulded enclosure dimensions

The dimensions in this standard apply to all the completed SMD-devices for frequency control and selection. Only those dimensions are given which meet the requirements of IEC 61240.

6 Lead connections

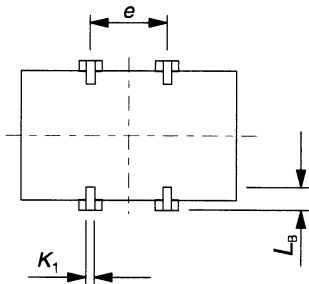
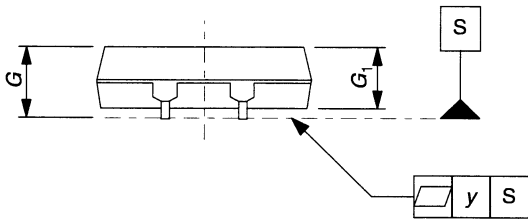
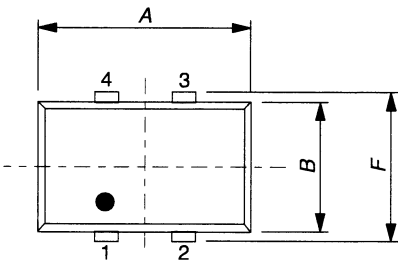
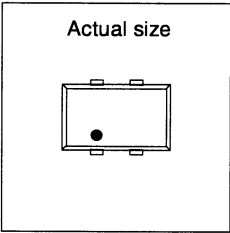
Recommendations for the lead connections of all completed SMD-devices for frequency control and selection are given in the following individual sheets. Lead connections shall always be given in the detail specification.

7 Plastic moulded enclosures

The following table sets out the designation of the plastic moulded enclosures as outlined in the ensuing specification sheets.

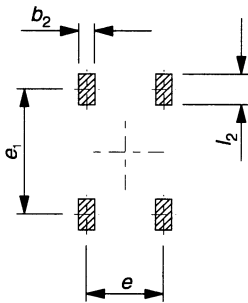
Table 1 – Designation of plastic moulded enclosures

No.	Type	Sheet No.	Description
1	DCC-J4/01	Sheet 1	Plastic, moulded, four folded leads SMD outline
2	DCC-J4/02	Sheet 2	Plastic, moulded, four folded leads SMD outline
3	DCC-J4/03	Sheet 3	Plastic, moulded, four folded leads SMD outline
4	DCC-J4/04	Sheet 4	Plastic, moulded, four folded leads SMD outline
5	DCC-J4/05	Sheet 5	Plastic, moulded, four folded leads SMD outline
6	DCC-J4/06	Sheet 6	Plastic, moulded, four folded leads SMD outline
7	DCC-J4/07	Sheet 7	Plastic, moulded, four folded leads SMD outline
8	DCC-J4/08	Sheet 8	Plastic, moulded, four folded leads SMD outline
9	SIP-L5/01	Sheet 9	Plastic, moulded, single in-line five leads SMD outline

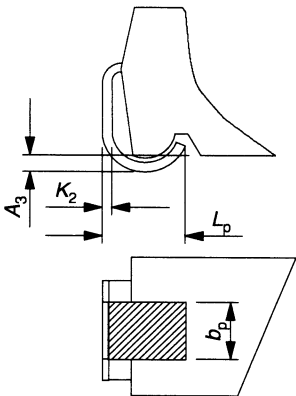


Ref.	Dimensions (mm)			Notes
	Min.	Nom.	Max.	
A			14,00	
B			8,90	
G			4,70	
G ₁			4,20	
K ₁	0,40		0,60	
K ₂	0,20		0,30	
F	9,40		9,80	
L _B	1,70		2,10	
e		5,08		
e ₁		7,62		
b ₂			0,80	
l ₂			2,30	
y			0,10	
A ₃		0,30		
b _p	0,40		0,60	
L _p	1,00		1,60	

Terminal land areas



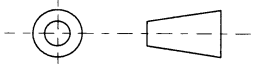
Terminal configuration



IEC 566/99

Scale 2:1

Plastic, moulded, four folded leads SMD outline, type DCC-J4/01



Date: 1999-04

Terminal lead connections

If the presence of any leads is optional, or if an enclosure is supplied with less than the maximum number of leads, this shall be indicated in the detail specification.

Type of SMD	Lead No.	Crystal unit	Crystal oscillator	Crystal filter
DCC-J4/01	1		Control voltage	
	2		Ground	
	3		Output	
	4		DC supply	