IEC 61837-4

Edition 2.0 2015-03

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Surface mounted piezoelectric devices for frequency control and selection – Standard outlines and terminal lead connections – Part 4: Hybrid enclosure outlines

Dispositifs piézoélectriques à montage en surface pour la commande et le choix de la fréquence – Encombrements normalisés et connexions des sorties – Partie 4: Encombrements des enveloppes hybrides

IEC 61837-4:2015-03(en-fr)

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INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

COMMISSION
ELECTROTECHNIQUE
INTERNATIONALE

ICS 31.140

ISBN 978-2-8322-2428-1

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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

Part 4: Hybrid enclosure outlines

FOREWORD

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International Standard IEC 61837-4 has been prepared by IEC technical committee 49: Piezoelectric, dielectric and electrostatic devices and associated materials for frequency control, selection and detection.

This second edition cancels and replaces the first edition published in 2004. It constitutes a technical revision.

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

- Outline drawing is defined as one set of drawings consisting of four views, which are the view from above, the front view, the view from the right, and the view from below, instead of one set consisting of three views as provided in the previous edition.
- The configurations of the enclosures were revised as shown in Table 1.

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

FDIS	Report on voting
49/1117/FDIS	49/1129/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.

This International Standard shall be read in conjunction with IEC 61240:2012.

A list of all parts in the IEC 61837 series, published under the general title *Surface mounted piezoelectric devices for frequency control and selection – Standard outlines and terminal lead connections*, 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 website 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
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SURFACE MOUNTED PIEZOELECTRIC DEVICES FOR FREQUENCY CONTROL AND SELECTION – STANDARD OUTLINES AND TERMINAL LEAD CONNECTIONS –

Part 4: Hybrid enclosure outlines

1 Scope

This part of IEC 61837 specifies the outline drawings and terminal lead connections for surface piezoelectric devices with hybrid enclosure outlines and is based on IEC 61240:2012 which standardized layout rules of outline drawings of surface-mounted device.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 61240:2012, *Piezoelectric devices – Preparation of outline drawings of surface-mounted devices (SMD) for frequency control and selection – General rules*

3 Configuration of enclosures

If there are versions with different height of the same enclosures, each enclosure is expressed by a dash (/) plus two digit number after the basic type name. The version number is indicated in the dimension table in the sheet.

4 Dimensions of surface mounted piezoelectric devices with hybrid enclosure outlines

The dimensions in this standard apply to surface mounted piezoelectric devices.

Only those dimensions which meet the requirements of IEC 61240 are given.

Drawings of the same size should be described in the same scale. The scale should be chosen based on the Table A.1 of IEC 61240:2012. In this part of IEC 61837, it is recommended that enclosures with nominal length value larger than 20 mm use scale 2:1.

5 Table of detailed dimensions

The dimensions shall be given only where the letter x is shown in the table of the given sheet.

If there are plural identical enclosures with a different height (G), the typical value of G shall be shown in the table. Or different values of G shall be expressed with a subscript number such as G_1, G_2, etc. The identity references are given in the table in the sheet.

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6 Designation of surface mounted piezoelectric devices with hybrid enclosure outlines

All corresponding enclosures are listed in Table 2 below.

Table 1 – Revised Configuration

Type	Sheet No.	**Description** (Size unit is mm)
CO26/01	Sheet 2	Maximum G_1 was changed from to 5.5 to 5.7. l_2, b_2 were changed from 2,6, 2,1 to 2,8, 2,3 respectively.
CO27/01~04	Sheet 3	Maximum B was changed from 9,5 to 9,6.
CO27/01,02	Sheet 3	Maximum G_1 and G_2 were changed from 5,5, 4,7 to 5,7, 4,9 respectively.
CO27/04	Sheet 3	CO27 with G_4 of 3,0 was newly added.
CO28/01~03	Sheet 4	l_2, b_2 were changed from 4,0, 3,0 to 4,2, 3,2 respectively.
CO29/01-02	Sheet 5	l_2, b_2 were changed from 2,5, 1,3 to 2,7, 1,5 respectively.

Table 2 below provides the designation of surface mounted piezoelectric devices with hybrid enclosure outline.

Table 2 – Designation of surface mounted piezoelectric devices with hybrid enclosure outline

No.	Type	Sheet No.	Description	National reference	
				Country	Reference
1	CO 25/01~02	Sheet 1	Hybrid SMD enclosure with four bent connection pins		
2	CO 26/01~02	Sheet 2	Hybrid SMD enclosure with four connection pads		
3	CO 27/01~04	Sheet 3	Hybrid SMD enclosure with six connection pads		
4	CO 28/01~03	Sheet 4	Hybrid SMD enclosure with seven connection pads		
5	CO 29/01~02	Sheet 5	Hybrid SMD enclosure with eight connection pads		
6	CO 30/01~09	Sheet 6	Hybrid SMD enclosure with six connection pads		

Table 3 below lists the various lead connections.

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Table 3 – Lead connections

Crystal oscillator outline	Position (lead number)	Function
CO 25	1	NC(IC)
	2	Ground
	3	Output
	4	Vcc
CO 26	1	NC(IC)
	2	Ground
	3	Output
	4	Vcc
CO 27	1	Vc
	2	NC(IC)
	3	Ground
	4	Output
	5	NC(IC)
	6	Vcc
CO 28	1	NC(IC)
	2	Vref
	3	Vcc
	4	Output
	5	NC(IC)
	6	NC(IC)
	7	Ground
CO 29	1	Vc
	2	Optional
	3	Disable
	4	Ground
	5	Output
	6	Output
	7	Optional
	8	Vcc
CO 30	1	Vc
	2	Vcc
	3	Optional
	4	Output
	5	Ground
	6	Optional

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