SLOVENSKI STANDARD
SIST EN IEC 62969-1:2018

01-april-2018

Polprevodniški elementi - Polprevodniški vmesnik za motorna vozila - 1. del: Splošne zahteve za napajalni vmesnik za senzorje motornih vozil (IEC 62969-1:2017)

Semiconductor devices - Semiconductor interface for automotive vehicles - Part 1: General requirements of power interface for automotive vehicle sensors (IEC 62969-1:2017)

Ta slovenski standard je istoveten z: **EN IEC 62969-1:2018**

ICS:

31.080.01	Polprevodniški elementi (naprave) na splošno	Semiconductor devices in general
43.040.10	Električna in elektronska oprema	Electrical and electronic equipment

SIST EN IEC 62969-1:2018 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN IEC 62969-1

February 2018

ICS 31.080.99

English Version

Semiconductor devices - Semiconductor interface for automotive vehicles - Part 1: General requirements of power interface for automotive vehicle sensors (IEC 62969-1:2017)

Dispositifs à semiconducteurs - Interface à semiconducteurs pour les véhicules automobiles - Partie 1 : Exigences générales de l'interface d'alimentation destinée aux capteurs des véhicules automobiles (IEC 62969-1:2017)

Halbleiterbauelemente - Halbleiterschnittstelle für Automobile - Teil 1: Allgemeine Anforderungen an Energie-Schnittstellen für Automobil-Sensoren (IEC 62969-1:2017)

This European Standard was approved by CENELEC on 2018-01-17. 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.

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

European foreword

The text of document 47/2433/FDIS, future edition 1 of IEC 62969-1, prepared by IEC/TC 47 "Semiconductor devices" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 62969-1.

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)	2018-10-17
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2021-01-17

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

Endorsement notice

The text of the International Standard IEC 62969-1:2017 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following note has to be added for the standard indicated:

IEC 61508 (all parts)	NOTE	Harmonized as EN 61508 (all parts).

Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

Publication	Year	Title	EN/HD	Year
IEC 60068-2-1	-	Environmental testing -- Part 2-1: Tests - Test A: Cold	EN 60068-2-1	-
IEC 60068-2-2	-	Environmental testing -- Part 2-2: Tests - Test B: Dry heat	EN 60068-2-2	-
IEC 60068-2-14	-	Environmental testing -- Part 2-14: Tests - Test N: Change of temperature	EN 60068-2-14	-
IEC 60068-2-30	-	Environmental testing -- Part 2-30: Tests - Test Db: Damp heat, cyclic (12 h + 12 h cycle)	EN 60068-2-30	-
IEC 60529	-	Degrees of protection provided by enclosures (IP Code)	-	-
IEC 60721	series	Classification of environmental conditions - Part 1: Environmental parameters and their severities	EN 60721	series
IEC 60749-10	-	Semiconductor devices - Mechanical and climatic test methods -- Part 10: Mechanical shock	EN 60749-10	-
IEC 60749-12	-	Semiconductor devices - Mechanical and climatic test methods - Part 12: Vibration, variable frequency	EN 60749-12	-
IEC 61851-1	-	Electric vehicle conductive charging system -- Part 1: General requirements	-	-
IEC 61967-1	-	Integrated circuits - Measurement of electromagnetic emissions, 150 kHz to 1 GHz - Part 1: General conditions and definitions	-	-
IEC 61967-2	-	Integrated circuits - Measurement of electromagnetic emissions, 150 kHz to 1 GHz -- Part 2: Measurement of radiated emissions - TEM cell and wideband TEM cell method	EN 61967-2	-
IEC TS 61967-3	-	Integrated circuits - Measurement of electromagnetic emissions - Part 3: Measurement of radiated emissions - Surface scan method	-	-

IEC 61967-4	-	Integrated circuits - Measurement of electromagnetic emissions, 150 kHz to 1 GHz -- Part 4: Measurement of conducted emissions - 1 ohm/150 ohm direct coupling method	EN 61967-4	-
IEC 61967-5	-	Integrated circuits - Measurement of electromagnetic emissions, 150 kHz to 1 GHz -- Part 5: Measurement of conducted emissions - Workbench Faraday Cage method	EN 61967-5	-
IEC 61967-6	-	Integrated circuits - Measurement of electromagnetic emissions, 150 kHz to 1 GHz -- Part 6: Measurement of conducted emissions - Magnetic probe method	EN 61967-6	-
IEC 61967-8	-	Integrated circuits - Measurement of electromagnetic emissions -- Part 8: Measurement of radiated emissions - IC stripline method	EN 61967-8	-
IEC 62132-1	-	Integrated circuits - Measurement of electromagnetic immunity - Part 1: General conditions and definitions	EN 62132-1	-
IEC 62132-2	-	Integrated circuits - Measurement of electromagnetic immunity -- Part 2: Measurement of radiated immunity - TEM cell and wideband TEM cell method	EN 62132-2	-
IEC 62132-3	-	Integrated circuits - Measurement of electromagnetic immunity, 150 kHz to 1 GHz -- Part 3: Bulk current injection (BCI) method	EN 62132-3	-
IEC 62132-4	-	Integrated circuits - Measurement of electromagnetic immunity, 150 kHz to 1 GHz -- Part 4: Direct RF power injection method	EN 62132-4	-
IEC 62132-5	-	Integrated circuits - Measurement of electromagnetic immunity, 150 kHz to 1 GHz -- Part 5: Workbench Faraday cage method	EN 62132-5	-
IEC TS 61967-3	-	Integrated circuits - Measurement of electromagnetic emissions - Part 3: Measurement of radiated emissions - Surface scan method	-	-
IEC 62262	-	Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts (IK code)	EN 62262	-

IEC 62969-1

Edition 1.0 2017-12

INTERNATIONAL STANDARD

Semiconductor devices – Semiconductor interface for automotive vehicles – Part 1: General requirements of power interface for automotive vehicle sensors

INTERNATIONAL
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CONTENTS

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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SEMICONDUCTOR DEVICES –
SEMICONDUCTOR INTERFACE FOR AUTOMOTIVE VEHICLES –

Part 1: General requirements of power interface for automotive vehicle sensors

FOREWORD

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International Standard IEC 62969-1 has been prepared by IEC technical committee 47: Semiconductor devices.

The text of this International Standard is based on the following documents:

FDIS	Report on voting
47/2433/FDIS	47/2447/RVD

Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all the parts in the IEC 62969 series, published under the general title *Semiconductor devices – Semiconductor interface for automotive vehicles*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "http://webstore.iec.ch" in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

A bilingual version of this publication may be issued at a later date.

IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

INTRODUCTION

The IEC 62969 series is composed of four parts as follows:

- IEC 62969-1, *Semiconductor devices – Semiconductor interface for automotive vehicles – Part 1: General requirements of power interface for automotive vehicle sensors*
- IEC 62969-2, *Semiconductor devices – Semiconductor interface for automotive vehicles – Part 2: Efficiency evaluation methods of wireless power transmission using resonance for automotive vehicle sensors*
- IEC 62969-3, *Semiconductor devices – Semiconductor interface for automotive vehicles – Part 3: Shock driven piezoelectric energy harvesting for automotive vehicle sensors*
- IEC 62969-4, *Semiconductor devices – Semiconductor interface for automotive vehicles – Part 4: Evaluation methods of data interface for automotive vehicle sensors*

The IEC 62969 series covers power and data interfaces for sensors in automotive vehicles. The first part covers general requirements of test conditions such as temperature, humidity, vibration, etc. for automotive sensor power interface. This part also includes various electrical performances of power interface such as voltage drop from power source to automotive sensors, noises, voltage level, etc. The second part covers “Efficiency evaluation methods of wireless power transmission using resonance for automotive vehicle sensors “. The third part covers “Shock driven piezoelectric energy harvesting for automotive vehicle sensors”. The fourth part covers “Evaluation methods of data interface for automotive vehicle sensors”.