

Mõõte-, juhtimis- ja laboratooriumi-elektriseadmed. Elektromagnetilise ühilduvuse nõuded. Osa 2-3: Erinõuded. Sisseehitatud või kaugsignalisatsioonil põhinevate andurite katsetamisviisid, käidutingimused ja toimivuskriteeriumid (IEC 61326-2-3:2012)

Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 2-3: Particular requirements - Test configuration, operational conditions and performance criteria for transducers with integrated or remote signal conditioning (IEC 61326-2-3:2012)

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 61326-2-3:2013 sisaldab Euroopa standardi EN 61326-2-3:2013 ingliskeelset teksti.	This Estonian standard EVS-EN 61326-2-3:2013 consists of the English text of the European standard EN 61326-2-3:2013.
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ICS 17.220, 19.080, 25.040.40, 33.100

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English version

**Electrical equipment for measurement, control and laboratory use -
EMC requirements -
Part 2-3: Particular requirements -
Test configuration, operational conditions and performance criteria for
transducers with integrated or remote signal conditioning
(IEC 61326-2-3:2012)**

Matériel électrique de mesure, de
commande et de laboratoire -
Exigences relatives à la CEM -
Partie 2-3: Exigences particulières -
Configurations d'essai, conditions de
fonctionnement et critères de performance
des transducteurs avec un système de
conditionnement du signal intégré ou à
distance
(CEI 61326-2-3:2012)

Elektrische Mess-, Steuer-, Regel- und
Laborgeräte -
EMV-Anforderungen -
Teil 2-3: Besondere Anforderungen -
Prüfanordnung, Betriebsbedingungen und
Leistungsmerkmale für
Messgrößenumformer mit integrierter oder
abgesetzter Signalaufbereitung
(IEC 61326-2-3:2012)

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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 65A/629/FDIS, future edition 2 of IEC 61326-2-3, prepared by SC 65A, "System aspects", of IEC TC 65, "Industrial-process measurement, control and automation" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 61326-2-3:2013.

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) 2013-07-10
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2015-08-14

This document supersedes EN 61326-2-3:2006.

EN 61326-2-3:2013 includes the following significant technical changes with respect to EN 61326-2-3:2006:

– update of the document with respect to EN 61326-1:2013.

EN 61326-2-3:2013 is to be used in conjunction with EN 61326-1:2013 and follows the same numbering of clauses, subclauses, tables and figures.

When a particular subclause of EN 61326-1 is not mentioned in this part, that subclause applies as far as is reasonable. When this standard states "addition", "modification" or "replacement", the relevant text in EN 61326-1 is to be adapted accordingly.

NOTE The following numbering system is used:

- subclauses, tables and figures that are numbered starting from 101 are additional to those in EN 61326-1;
- unless notes are in a new subclause or involve notes in EN 61326-1, they are numbered starting from 101 including those in a replaced clause or subclause;
- additional annexes are lettered AA, BB, etc.

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

This document has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For the relationship with EU Directive(s) see informative Annex ZZ, which is an integral part of this document.

Endorsement notice

The text of the International Standard IEC 61326-2-3:2012 was approved by CENELEC as a European Standard without any modification.

Annex ZA
(normative)

**Normative references to international publications
with their corresponding European publications**

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.

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

Annex ZA of EN 61326-1:2013 applies, except as follows:

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
<i>Addition:</i>				
IEC 61326-1	2012	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 1: General requirements	EN 61326-1	2013

Annex ZZ (informative)

Coverage of Essential Requirements of EU Directives

This European Standard has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association and within its scope the standard covers protection requirements of Annex I, Article 1 of the EC Directive 2004/108/EC.

Compliance with this standard provides one means of conformity with the specified essential requirements of the Directive[s] concerned.

NOTE Other requirements and other EU Directives may be applicable to the products falling within the scope of this standard.

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ELECTRICAL EQUIPMENT FOR MEASUREMENT, CONTROL AND LABORATORY USE – EMC REQUIREMENTS –

Part 2-3: Particular requirements – Test configuration, operational conditions and performance criteria for transducers with integrated or remote signal conditioning

1 Scope

In addition to the requirements of IEC 61326-1, this part specifies more detailed test configurations, operational conditions and performance criteria for transducers with integrated or remote signal conditioning.

This standard applies only to transducers characterized by their ability to transform, with the aid of an auxiliary energy source, a non-electric quantity to a process-relevant electrical signal, and to output the signal at one or more ports. This standard includes transducers for electrochemical and biological measured quantities.

The transducers covered by this standard may be powered by a.c. or d.c. voltage and/or by battery or with internal power supply.

Transducers referred to by this standard comprise at least the following items (see Figures 101 and 102):

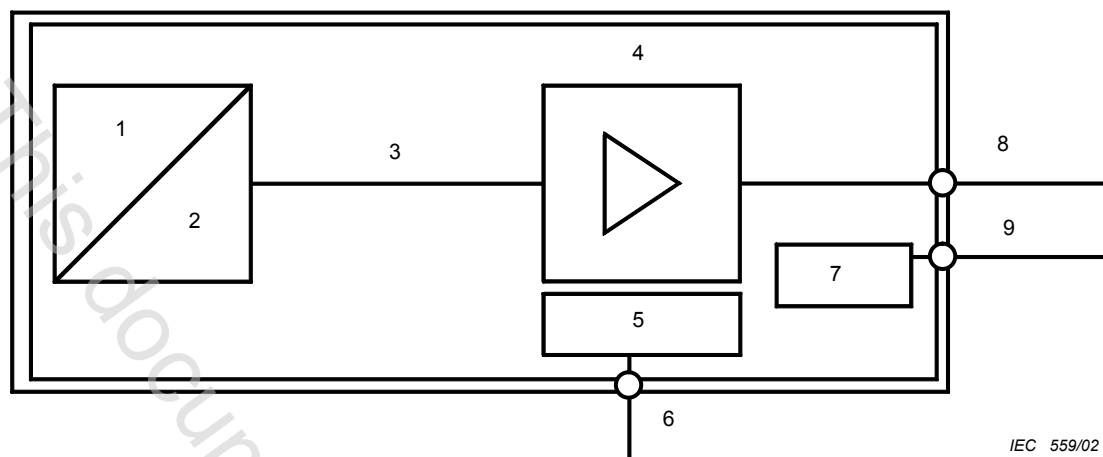
- one or more elements for transforming a non-electrical input quantity to an electrical quantity;
- a transmission link for transferral of the electrical quantity to a component for signal conditioning;
- a unit for signal conditioning that converts the electrical quantity to a process-relevant electrical signal;
- an enclosure for enclosing the above-stated components fully or in parts.

Transducers referred to by this standard may also have the following items (see Figures 101 and 102):

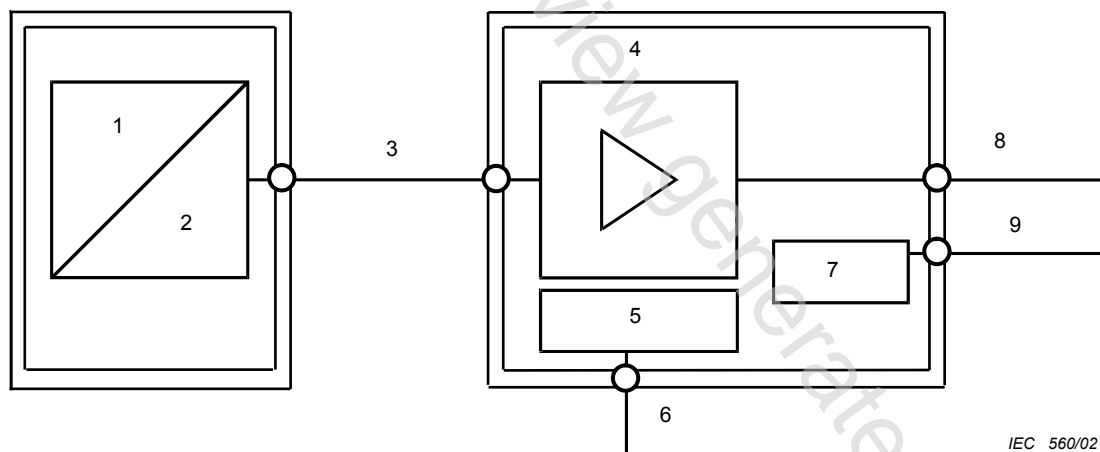
- a communication and control unit;
- a display unit;
- control elements such as keys, buttons, switches, etc.;
- transducer output signals (for example, switch outputs, alarm outputs) which are clearly assigned to the input signal(s);
- transducers with signal conditioning which may be integrated or remote.

The manufacturer specifies the environment for which the product is intended to be used and utilizes the corresponding test levels of IEC 61326-1.

Additional requirements and exceptions for specific types of transducers are given in the annexes to this standard.

**Key**

- 1 Non-electrical quantity
- 2 Electrical quantity
- 3 Transmission link
- 4 Signal conditioning
- 5 Communication and control unit
- 6 Input/output ports
- 7 Power supply
- 8 Signal port
- 9 AC/DC power port

Figure 101 – Example of a transducer with integrated signal conditioning**Key**

- 1 Non-electrical quantity
- 2 Electrical quantity
- 3 Transmission link
- 4 Signal conditioning
- 5 Communication and control unit
- 6 Input/output ports
- 7 Power supply
- 8 Signal port
- 9 AC/DC power port

Figure 102 – Example of a transducer with remote signal conditioning

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.

Clause 2 of IEC 61326-1:2012 applies, except as follows:

Addition:

IEC 61326-1:2012, *Electrical equipment for measurement, control and laboratory use – EMC requirements – Part 1: General requirements*

3 Terms and definitions

For the purposes of this document, the terms and definitions of IEC 61326-1 apply, except as follows.

Addition:

3.101 transducer with integrated signal conditioning

transducer in which all components for signal conditioning are integrated in the enclosure (see Figure 101)

3.102 transducer with remote signal conditioning

transducer whose components for signal conditioning are installed in separate enclosures (see Figure 102)

3.104 transmission link

connection between the individual components of a transducer with remote signal conditioning

3.105 (nominal) range

range of indications obtainable with a particular setting of the controls of a measuring instrument

Note 1 to entry: The nominal range is normally stated in terms of its lower and upper limits. Where the lower limit is zero, the nominal range is commonly stated solely in terms of its upper limit.

[SOURCE: IEC 60050-300:2001, 311-03-14]

3.106 measuring range (of a transducer)

range defined by two values of the measured quantity within which the relationship between the output and input signals complies with the accuracy requirements

[SOURCE: IEC 60050-300:2001, 314-04-04, modified]

Note 1 to entry: For a 4 mA to 20 mA system, the output current 4 mA represents the lower limit for the measured quantity and 20 mA represent the upper limit.

3.107 span

algebraic difference between the values of the upper and lower limits of the measuring range