SLOVENSKI STANDARD
SIST EN IEC 62828-3:2018

01-oktober-2018

Referenčni pogoji in postopki za preskušanje industrijskih in procesnih merilnih oddajnikov - 3. del: Posebni postopki za oddajnike temperature (IEC 62828-3:2018)

Reference conditions and procedures for testing industrial and process measurement transmitters - Part 3: Specific procedures for temperature transmitters (IEC 62828-3:2018)

Referenzbedingungen und Testmethoden für Industrie- und Prozessmessgrößenumformer - Teil 3: Spezielle Testmethoden für Temperaturmessumformer (IEC 62828-3:2018)

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Conditions de référence et procédures pour l'essai des transmetteurs de mesure industrielle et de processus - Partie 3: Procédures spécifiques pour les transmetteurs de température (IEC 62828-3:2018)

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Ta slovenski standard je istoveten z: **EN IEC 62828-3:2018**

ICS:

17.200.20	Instrumenti za merjenje temperature	Temperature-measuring instruments
25.040.40	Merjenje in krmiljenje industrijskih postopkov	Industrial process measurement and control

SIST EN IEC 62828-3:2018 **en,fr,de**

2003-01.Slovenski inštitut za standardizacijo. Razmnoževanje celote ali delov tega standarda ni dovoljeno.

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

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English Version

Reference conditions and procedures for testing industrial and process measurement transmitters - Part 3: Specific procedures for temperature transmitters (IEC 62828-3:2018)

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

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European foreword

The text of document 65B/1110A/FDIS, future edition 1 of IEC 62828-3, prepared by IEC/SC 65B "Measurement and control devices, of IEC Technical Committee 65: Industrial-process measurement, control and automation" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 62828-3:2018.

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)	2019-02-23
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2021-05-23

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 62828-3:2018 was approved by CENELEC as a European Standard without any modification.

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

IEC 60584-1:2013	NOTE	Harmonized as EN 60584-1:2013 (not modified).
IEC 60584-3:2007	NOTE	Harmonized as EN 60584-3:2008 (not modified).
IEC 60715	NOTE	Harmonized as EN 60715.
IEC 60751:2008	NOTE	Harmonized as EN 60751:2008 (not modified).
IEC 61152:1992	NOTE	Harmonized as EN 61152:1994 (modified).
IEC 61515:2016	NOTE	Harmonized as EN 61515:2016 (not modified).
IEC 61298 (series)	NOTE	Harmonized as EN 61298 (series).
IEC 61987-14:2016	NOTE	Harmonized as EN 61987-14:2016 (not modified).
IEC 62460:2008	NOTE	Harmonized as EN 62460:2008 (not modified).

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SIST EN IEC 62828-3:2018

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 60584	series	Thermocouples	EN 60584	series
IEC 62828-1	2017	Reference conditions and procedures for testing industrial and process measurement transmitters – Part 1: General procedures for all types of transmitters	EN IEC 62828-1	2018

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https://standards.iteh.ai/catalog/standards/sist/fabb5c39-d43f-4605-9c8e-27fda3c4633a/sist-en-iec-62828-3-2018

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INTERNATIONAL STANDARD

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Reference conditions and procedures for testing industrial and process measurement transmitters –
Part 3: Specific procedures for temperature transmitters

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SIST EN IEC 62828-3:2018
https://standards.iteh.ai/catalog/standards/sist/fa8e0e39-d45f-4e0e-9e0e-37f8e3c4633a/sist-en-iec-62828-3-2018

Conditions de référence et procédures pour l'essai des transmetteurs de mesure industrielle et de processus –
Partie 3: Procédures spécifiques pour les transmetteurs de température

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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CONTENTS

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SIST EN IEC 62828-3:2018
https://standards.iteh.ai/catalog/standards/sist/fa0b6c59-d43f-4605-9c8e-27f1e3c4633e/sist-en-iec-62828-3-2018

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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REFERENCE CONDITIONS AND PROCEDURES FOR TESTING INDUSTRIAL AND PROCESS MEASUREMENT TRANSMITTERS –

Part 3: Specific procedures for temperature transmitters

FOREWORD

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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International Standard IEC 62828-3 has been prepared by Subcommittee 65B: Measurement and control devices, of IEC Technical Committee 65: Industrial-process measurement, control and automation.

The IEC 62828 series cancels and replaces the IEC 60770 series and proposes revisions for the IEC 61298 series.

In IEC 61298, all parts related to PMT's will be deleted, leaving all the requirements regarding all devices but PMT's.

SIST EN IEC 62828-3:2018

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

FDIS	Report on voting
65B/1110A/FDIS	65B/1114/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 parts in the IEC 62828 series, published under the general title *Reference conditions and procedures for testing industrial and process measurement transmitters*, 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.

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SIST EN IEC 62828-3:2018

INTRODUCTION

Most of the current IEC standards on industrial and process measurement transmitters are rather old and were developed having in mind devices based on analogue technologies. Many industrial and process measurement transmitters are meanwhile evolved and are quite different from those analogue transmitters: they are often digital and include more functions and newer interfaces, both towards the computing section (mostly digital electronic) and towards the measuring section (mostly mechanical). Even if some standards dealing with digital process measurement transmitters already exist, they are not sufficient, since some aspects of the performance are not covered by appropriate test methods.

In addition, existing IEC test standards for industrial and process measurement transmitters are spread over many documents, so that for manufacturers and users it is difficult, impractical and time-consuming to identify and select all the standards to be applied to a device measuring a specific process quantity (pressure, temperature, flow, level, etc.).

To help manufacturers and users, it was decided to review, complete and reorganize the relevant IEC standards and to create a more suitable, effective and comprehensive standard series that provides in a systematic way all specifications and tests required for different industrial and process measurement transmitters.

To solve the issues mentioned above and to provide an added value for the stakeholders, the new standard series on industrial and process measurement transmitters covers the following main aspects:

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- applicable normative references;
- specific terms and definitions;
- typical configurations and architectures for the various types of industrial and process measurement transmitters;
- hardware and software aspects;
- interfaces (to the process, to the operator, to the other measurement and control devices);
- physical, mechanical and electrical requirements and relevant tests; clear definition of the test categories: type tests, acceptance tests and routine tests;
- performance (its specification, tests and verification);
- environmental protection, hazardous areas application, functional safety, etc.;
- structure of the test report and of the technical documentation.

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To cover in a systematic way all the topics to be addressed, the standard series is organized in several parts. At the moment of the publication of this document, the IEC 62828 series consists of the following parts:

- IEC 62828-1: General procedures for all types of transmitters
- IEC 62828-2: Specific procedures for pressure transmitters
- IEC 62828-3: Specific procedures for temperature transmitters
- IEC 62828-4: Specific procedures for level transmitters
- IEC 62828-5: Specific procedures for flow transmitters