SIST

SLOVENSKI STANDARD
SIST EN IEC 61207-2:2019

01-november-2019

Nadomešča:

SIST EN 61207-2:1998

Izražanje lastnosti analizatorjev plina - 2. del: Merjenje kisika v plinu z uporabo visokotemperaturnih elektrokemijskih senzorjev

Expression of performance of gas analyzers - Part 2: Measuring oxygen in gas utilizing high-temperature electrochemical sensors (IEC 61207-2:2019)

Angabe zum Betriebsverhalten von Gasanalysatoren - Teil 2: Sauerstoffmessung in Gas unter Verwendung von elektrochemischen Hochtemperatur-Sensoren (IEC 61207-2:2019)

Expression des qualités de fonctionnement des analyseurs de gaz - Partie 2: Mesure de l'oxygène contenu dans le gaz en utilisant des capteurs électrochimiques à haute température (IEC 61207-2:2019)

Ta slovenski standard je istoveten z: **EN IEC 61207-2:2019**

ICS:

71.040.20	Laboratorijska posoda in aparati	Laboratory ware and related apparatus
71.040.40	Kemijska analiza	Chemical analysis

SIST EN IEC 61207-2:2019 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN IEC 61207-2

August 2019

ICS 71.040.40; 71.040.20

Supersedes EN 61207-2:1994 and all of its amendments and corrigenda (if any)

English Version

Expression of performance of gas analyzers - Part 2: Measuring oxygen in gas utilizing high-temperature electrochemical sensors (IEC 61207-2:2019)

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(IEC 61207-2:2019)

This European Standard was approved by CENELEC on 2019-07-23. 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.

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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 65B/1156/FDIS, future edition 2 of IEC 61207-2, prepared by SC 65B "Measurement and control devices" of IEC/TC 65 "Industrial-process measurement, control and automation" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 61207-2:2019.

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) 2020-04-23
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2022-07-23

This document supersedes EN 61207-2:1994 and all of its amendments and corrigenda (if any).

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 61207-2:2019 was approved by CENELEC as a European Standard without any modification.

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

IEC 60654 (series)	NOTE	Harmonized as EN 60654 (series)
ISO 9001	NOTE	Harmonized as EN ISO 9001

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 61207-1	2010	Expression of performance of gas analyzers - Part 1: General	EN 61207-1	2010

IEC 61207-2

Edition 2.0 2019-06

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Expression of performance of gas analyzers – Part 2: Measuring oxygen in gas utilizing high-temperature electrochemical sensors

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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CONTENTS

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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EXPRESSION OF PERFORMANCE OF GAS ANALYZERS –

Part 2: Measuring oxygen in gas utilizing high-temperature electrochemical sensors

FOREWORD

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International Standard IEC 61207-2 has been prepared by sub-committee 65B: Measurement and control devices of IEC technical committee 65: Industrial-process measurement, control and automation.

This second edition cancels and replaces the first edition published in 1994. This edition constitutes a technical revision.

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

a) all the terms and definitions relating to the document have been updated where appropriate;

b) the description of the principle of the galvanic cell has been expanded and clarified;

c) new definitions and illustrations have been added for different measurement methods for oxygen using solid electrolytes for galvanic cells;

d) new illustrations have been added for existing descriptions for ion pump cells;

e) a more detailed description of the effect of the presence of oxidizable gases has been added;

f) all references to “errors” have been replaced by “uncertainties” and appropriate updated definitions applied.

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

FDIS	Report on voting
65B/1156/FDIS	65B/1158/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 is to be used in conjunction with IEC 61207-1:2010.

A list of all parts in the IEC 61207 series under the general title *Expression of performance of gas analyzers,* 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
- amended.

INTRODUCTION

This part of IEC 61207 includes the terminology, definitions, statements and tests that are specific to oxygen analyzers, which utilise high-temperature electrochemical sensors.

Oxygen analyzers employing high-temperature electrochemical sensors operating at temperatures usually in excess of 500 °C, have a wide range of applications for the measurement of oxygen in gas samples. Such samples are typically the result of a combustion process or oxygen impurity measurements.

Two main types of analyzer exist, the in situ analyzer, where the sensor is positioned within the process duct work, and the "extractive" analyzer, where the sample is drawn from the duct via a simple sample system and presented to the sensor.

An analyzer will typically comprise a sensor head, mounted on the process duct, and a control unit remotely mounted, with interconnecting cable.