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Industriell processtyrning – Prestandabeskrivning för analysatorer för fluorimetrisk analys av syre i vätskor

Expression of performance of fluorometric oxygen analyzers in liquid media

Som svensk standard gäller europastandarden EN 62703:2013. Den svenska standarden innehåller den officiella engelska språkversionen av EN 62703:2013.

Nationellt förord

Europastandarden EN 62703:2013

består av:

- **europastandardens ikraftsättningsdokument**, utarbetat inom CENELEC
- **IEC 62703, First edition, 2013 - Expression of performance of fluorometric oxygen analyzers in liquid media**

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Expression of performance of fluorometric oxygen analyzers in liquid media
(IEC 62703:2013)

Expression des performances des
analyseurs d'oxygène fluométriques en
milieu liquide
(CEI 62703:2013)

Angabe zum Betriebsverhalten von
fluorometrischen Sauerstoffanalysatoren
in flüssigen Medien
(IEC 62703:2013)

This European Standard was approved by CENELEC on 2013-08-01. 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.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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

CEN-CENELEC Management Centre: Avenue Marnix 17, B - 1000 Brussels

Foreword

The text of document 65B/867/FDIS, future edition 1 of IEC 62703, prepared by IEC/TC 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 62703:2013.

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) 2014-05-01
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2016-08-01

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Endorsement notice

The text of the International Standard IEC 62703:2013 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 (all parts)	NOTE	Harmonised as EN 60654 (all parts).
IEC 60654-1	NOTE	Harmonised as EN 60654-1.
IEC 60770-1	NOTE	Harmonised as EN 60770-1.
IEC 61207-1:2010	NOTE	Harmonised as EN 61207-1:2010.
IEC 61207-2	NOTE	Harmonised as EN 61207-2.
IEC 61298 (all parts)	NOTE	Harmonised as EN 61298 (all parts).
IEC 61326 (all parts)	NOTE	Harmonised as EN 61326 (all parts).
ISO 5814:2012	NOTE	Harmonised as EN ISO 5814:2012.
ISO 7888:1985	NOTE	Harmonised as EN 27888:1993.
ISO 9001	NOTE	Harmonised as EN ISO 9001.
ISO 80000-1:2009	NOTE	Harmonised as EN ISO 80000-1:2013.

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.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60068	series	Environmental testing	EN 60068	series
IEC 60359	2001	Electrical and electronic measurement equipment - Expression of performance	EN 60359	2002
IEC 61010-1	-	Safety requirements for electrical equipment for measurement, control and laboratory use - Part 1: General requirements	-	-
IEC 61187 (mod)	-	Electrical and electronic measuring equipment - Documentation	EN 61187 + Corr. March	-

CONTENTS

1	Scope.....	6
2	Normative references	7
3	Terms, definitions, quantities and units.....	7
3.1	Basic terms and definitions.....	7
3.2	General terms and definitions of devices and operations	10
3.3	Terms and definitions for manners of expression.....	11
3.4	Specific terms and definitions for fluorometry	13
3.5	Specific terms and definitions for fluorometric oxygen analyzers	15
3.6	Influence quantities for fluorometric oxygen analyzers.....	17
3.7	Quantities and units	18
4	Procedure for specification	19
4.1	Specification of values and ranges for fluorometric oxygen analyzers.....	19
4.2	Operation, storage and transport conditions	19
4.2.1	Rated operating conditions	19
4.2.2	Performance under rated operating conditions.....	19
4.2.3	Performance under rated operating conditions while inoperative.....	19
4.2.4	Construction materials.....	19
4.3	Performance characteristics requiring statements of rated values.....	19
4.4	Uncertainty limits.....	20
4.4.1	Limits of intrinsic uncertainty	20
4.4.2	Interference uncertainties	20
4.4.3	Repeatability	20
4.4.4	Drift	20
5	Test methods.....	20
5.1	Test procedures	20
5.2	Influence quantities	20
5.3	Operational conditions.....	21
5.4	Calibration.....	21
5.5	Reference conditions.....	21
5.5.1	Reference conditions during measurement of intrinsic uncertainty	21
5.5.2	Reference conditions during measurement of influence quantity.....	21
5.6	Testing procedures.....	21
5.6.1	Intrinsic uncertainty	21
5.6.2	Repeatability	22
5.6.3	Output fluctuation	22
5.6.4	Drift	23
5.6.5	Delay time, rise time and fall time	24
5.6.6	Warm-up time.....	24
5.6.7	Procedure for determining interference uncertainty.....	24
5.6.8	Variations	25
	Annex A (informative) Recommended standard values of influence – Quantities affecting performance from IEC 60359.....	26
	Annex B (informative) Performance characteristics calculable from drift tests	32
	Annex C (informative) Physico-chemical data of oxygen in water	33
	Bibliography.....	41

Figure 1 – Output fluctuations	23
Table 1 – Time intervals for statement of stability limits	23
Table A.1 – Mains supply voltage	30
Table A.2 – Mains supply frequency.....	30
Table A.3 – Ripple of d.c. supply	31
Table B.1 – Data: applied concentration 1 000 units	32
Table C.1 – Correlation conductivity-salinity	33
Table C.2 – Elevation barometric pressure (example)	34
Table C.3 – Solubility of oxygen in water exposed to water-saturated air at atmospheric pressure (1 013 hPa) (Salinity see Table C.1).....	35
Table C.4 – Solubility of oxygen in water vs. temperature and barometric pressure (lower range)	37
Table C.5 – Solubility of oxygen in water vs. temperature and barometric pressure (upper range).....	38
Table C.6 – Pressure conversions	39

EXPRESSION OF PERFORMANCE OF FLUOROMETRIC OXYGEN ANALYZERS IN LIQUID MEDIA

1 Scope

This International Standard is applicable to fluorometric oxygen analyzers used for the continuous determination of dissolved oxygen partial pressure or concentration. It applies to fluorometric oxygen analyzers suitable for use in water containing liquids, ultrapure waters, fresh or potable water, sea water or other aqueous solutions, industrial or municipal waste water from water bodies (e.g. lakes, rivers, estuaries) as well as for industrial process streams and process liquids. Whilst in principle fluorometric oxygen-analyzers are applicable in gaseous phases, the expression of performance in the gas-phase will not be subject of this standard.

The sensor unit of a fluorometric oxygen analyzer being in contact with the media to be measured contains a luminophore in a polymer-membrane permeable for oxygen or within other oxygen permeable materials (or substrates).

This standard specifies the terminology, definitions, requirements for statements by manufacturers and tests for fluorometric oxygen analyzers.

This standard is in accordance with the general principles set out in IEC 60359 and IEC 60770 series.

This standard is applicable to analyzers specified for permanent installation in any location (indoors or outdoors) utilizing an on-line measurement technique.

Safety requirements are dealt with in IEC 61010-1.

Standard range of analogue d.c. current signals used in process control systems are dealt with in IEC 60381-1.

Specifications for values for the testing of influence quantities can be found in IEC 60654 series.

Requirements for documentation to be supplied with instruments are dealt with in IEC 61187.

Requirements for general principles concerning quantities, units and symbols are dealt with in ISO 80000-1:2009.

The object of IEC 62703 is:

- to specify the general aspects in the terminology and definitions related to the performance of fluorometric oxygen analyzers used for the continuous determination of dissolved oxygen partial pressure or concentration in liquid media;
- to unify methods used in making and verifying statements on the functional performance of such analyzers;
- to specify which tests should be performed in order to determine the functional performance and how such tests should be carried out;
- to provide basic documents to support the application of standards of quality assurance within ISO 9001.

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 60068 (all parts), *Environmental testing*

IEC 60359:2001, *Electrical and electronic measurement equipment – Expression of performance*

IEC 61010-1, *Safety requirements for electrical equipment for measurement, control and laboratory use – Part 1: General requirements*

IEC 61187, *Electrical and electronic measuring equipment – Documentation*