

LEKKE AVASTAMISE SÜSTEEMID. OSA 4: NÕUDED JA
KATSE-/HINDAMISMEETODID SENSORIPÕHISTELE
LEKKE AVASTAMISE SÜSTEEMIDELE

Leak detection systems - Part 4: Requirements and
test/assessment methods for sensor based leak
detection systems

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 13160-4:2016 sisaldab Euroopa standardi EN 13160-4:2016 ingliskeelset teksti.	This Estonian standard EVS-EN 13160-4:2016 consists of the English text of the European standard EN 13160-4:2016.
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English Version

Leak detection systems - Part 4: Requirements and test/assessment methods for sensor based leak detection systems

Systèmes de détection de fuites - Partie 4: Exigences et méthodes d'essai/d'évaluation des systèmes de détection de fuites par capteur

Leckanzeigesysteme - Teil 4: Anforderungen und Prüf-/Bewertungsverfahren für sensorbasierte Leckanzeigesysteme

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Contents

	Page
European foreword.....	4
1 Scope	6
2 Normative references	6
3 Terms and definitions.....	6
4 Requirements	6
4.1 Effectiveness.....	6
4.1.1 General.....	6
4.1.2 Presence of liquids.....	7
4.1.3 Presence of vapours	7
4.1.4 Re-usability of the sensor	7
4.1.5 Requirements for software, (only if provided).....	7
4.2 Durability of effectiveness	8
4.2.1 Durability of effectiveness against temperature	8
4.2.2 Durability of effectiveness against chemical attack.....	8
5 Testing, assessment and sampling methods.....	8
5.1 Effectiveness of the leak detection systems.....	8
5.1.1 General.....	8
5.1.2 Presence of liquid.....	8
5.1.3 Presence of vapours	12
5.1.4 Re-usability of the discriminating and non-discriminating sensors	12
5.1.5 Re-usability of vapour sensors	13
5.1.6 Software (only if provided).....	13
5.2 Durability of effectiveness	14
5.2.1 Durability of effectiveness against temperature	14
5.2.2 Durability of effectiveness against chemical attack.....	16
6 Assessment and verification of constancy of performance - AVCP.....	17
6.1 General.....	17
6.2 Type testing.....	17
6.2.1 General.....	17
6.2.2 Test samples, testing and compliance criteria	18
6.2.3 Test reports	19
6.2.4 Shared other party results	19
6.2.5 Cascading determination of the product type results.....	20
6.3 Factory production control (FPC).....	21
6.3.1 General.....	21
6.3.2 Requirements	21
6.3.3 Product specific requirements	24
6.3.4 Procedure for modifications	24
6.3.5 One-off products, pre-production products (e.g. prototypes) and products produced in very low quantity.....	24
7 Marking, labelling and packaging.....	25

8	Environmental aspects	26
	Annex A (informative) Environmental aspects	27
	Annex ZA (informative) Clauses of this European Standard addressing the provisions of the EU Construction Products Regulation	29
ZA.1	Scope and relevant characteristics	29
ZA.2	Procedure for AVCP of sensor based leak detection systems	30
ZA.2.1	System(s) of AVCP	30
ZA.2.2	Declaration of performance (DoP)	31
ZA.2.2.1	General	31
ZA.2.2.2	Content	32
ZA.2.2.3	Example of DoP	32
ZA.3	CE marking and labelling	34
	Bibliography	38

European foreword

This document (EN 13160-4:2016) has been prepared by Technical Committee CEN/TC 393 “Equipment for tanks and filling stations”, the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by January 2017, and conflicting national standards shall be withdrawn at the latest by April 2018.

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

This document supersedes EN 13160-4:2003.

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

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

According to edition 2003 the following fundamental changes are given:

- requirements from EN 13160-1:2003 included, which are no longer contained in EN 13160-1:2016;
- new structure — requirements, testing, marking divided;
- new test procedure for vapour sensors and reusability of vapour sensors;
- test liquids revised.

This European Standard *Leak detection systems* consists of 7 parts:

- *Part 1: General principles*
- *Part 2: Requirements and test/assessment methods for pressure and vacuum systems*
- *Part 3: Requirements and test/assessment methods for liquid systems for tanks*
- *Part 4: Requirements and test/assessment methods for sensor based leak detection systems*
- *Part 5: Requirements and test/assessment methods for in-tank gauge systems and pressurized pipe work systems*
- *Part 6: Sensors in monitoring wells*
- *Part 7: Requirements and test/assessment methods for leak detection linings*

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Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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1 Scope

This European Standard gives requirements and the corresponding test/assessment methods applicable to sensor based leak detection systems (leak detection kits). The leak detection kits are intended to be used in interstitial spaces, leakage containments or monitoring wells. The leak detection kits are usually composed by:

- sensing device(s);
- evaluation device;
- alarm device.

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.

EN 228, *Automotive fuels — Unleaded petrol — Requirements and test methods*

EN 12285-1, *Workshop fabricated steel tanks — Part 1: Horizontal cylindrical single skin and double skin tanks for the underground storage of flammable and non-flammable water polluting liquids*

EN 13160-1:2016, *Leak detection systems — Part 1: General principles*

EN 13160-3:2016, *Leak detection systems — Part 3: Requirements and test/assessment methods for liquid systems for tanks*

EN 14879-4:2007, *Organic coating systems and linings for protection of industrial apparatus and plants against corrosion caused by aggressive media — Part 4: Linings on metallic components*

EN 60079-29-1, *Explosive atmospheres — Part 29-1: Gas detectors — Performance requirements of detectors for flammable gases (IEC 60079-29-1)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 13160-1:2016 and the following apply.

3.1

re-usability of the sensor

capability of a sensor to be used again after already detected liquid or vapour

4 Requirements

4.1 Effectiveness

4.1.1 General

This type of leak detection kit is classified according to EN 13160-1:2016 as class III.