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Tanks for transport of dangerous goods - Service equipment for tanks - Overfill prevention systems for liquid fuels

Táto norma obsahuje anglickú verziu európskej normy.  
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 07/20

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Supersedes EN 13922:2011

English Version

## Tanks for transport of dangerous goods - Service equipment for tanks - Overfill prevention systems for liquid fuels

Citernes destinées au transport de matières dangereuses - Équipement de service pour citernes - Dispositifs limiteurs de remplissage pour carburants pétroliers liquides

Tanks für die Beförderung gefährlicher Güter - Bedienungsausrüstung von Tanks - Überfüllsicherungssysteme für flüssige Kraft- und Brennstoffe

This European Standard was approved by CEN on 1 December 2019.

CEN 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 CEN 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 CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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



EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

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**EN 13922:2020 (E)**

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## European foreword

This document (EN 13922:2020) has been prepared by Technical Committee CEN/TC 296 "Tanks for the transport of dangerous goods", the secretariat of which is held by AFNOR.

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 August 2020, and conflicting national standards shall be withdrawn at the latest by February 2022.

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

This document supersedes EN 13922:2011.

In comparison with the 2011 edition, the following fundamental changes were made:

- safety integrity level (SIL) added;
- requirements and tests for electromagnetic compatibility (EMC) revised;
- temperature for the sensors extended to +60 °C;
- electrical requirements in 6.3.7 expanded for clarification;
- waveform signal changed to waveform pulse throughout the standard;
- Annex A tables and figures revised to reflect installed base;
- the word "peak" was added in Table A.3 before "sensor current" only for clarification;
- referred standards updated.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

**EN 13922:2020 (E)****Introduction**

The overfill prevention system prevents the maximum filling level of a compartment of a tank-vehicle from being exceeded by interrupting the filling operation on the loading site.

It is not the function of an overfill prevention system to prevent volume or weight overloading. The function of the overfill prevention system is the final means of containing the loaded product within a compartment and preventing a dangerous condition. It is therefore of critical importance that all components have a high degree of reliability and that all European gantries provide a compatible system with the tank-vehicles.

Not all the components of an overfill prevention system are necessarily supplied by one manufacturer but may include cross-compatible parts supplied by different manufacturers/suppliers. However, cross-compatibility does not mean interchangeability.

## 1 Scope

This document specifies the following points regarding the minimum requirements for an overfill prevention system:

- functions;
- major components;
- characteristics;
- test methods.

This document is applicable to overfill prevention systems for liquid fuels having a flash point up to but not exceeding 100 °C, excluding liquefied petroleum gas (LPG).

NOTE Vapour path detection is not part of this standard but can be provided as an option.

## 2 Normative references

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.

EN 590, *Automotive fuels - Diesel - Requirements and test methods*

EN 60079-0, *Explosive atmospheres - Part 0: Equipment - General requirements (IEC 60079-0)*

EN 60079-11, *Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i" (IEC 60079-11)*

EN 60079-14, *Explosive atmospheres - Part 14: Electrical installations design, selection and erection (IEC 60079-14)*

EN 61000-4-3, *Electromagnetic compatibility (EMC) - Part 4-3: Testing and measurement techniques - Radiated, radio-frequency, electromagnetic field immunity test (IEC 61000-4-3)*

EN 61000-6-4, *Electromagnetic compatibility (EMC) - Part 6-4: Generic standards - Emission standard for industrial environments (IEC 61000-6-4)*

EN 61508-1, *Functional safety of electrical/electronic/programmable electronic safety-related systems - Part 1: General requirements (IEC 61508-1)*

EN 61511-1, *Functional safety - Safety instrumented systems for the process industry sector — Part 1: Framework, definitions, system, hardware and application programming Requirements (IEC 61511-1)*

**koniec náhľadu – text ďalej pokračuje v platenej verzii STN**