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BSI Standards Publication

Petrol filling stations — Construction and performance of automatic nozzles for use on fuel dispensers

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National foreword

This British Standard is the UK implementation of EN 13012:2021. It supersedes BS EN 13012:2012, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee PVE/393, Equipment for storage tanks and filling stations.

A list of organizations represented on this committee can be obtained on request to its committee manager.

This publication has been prepared under a mandate given to the European Standards Organizations by the European Commission and the European Free Trade Association. It is intended to support requirements of the EU legislation detailed in the European Foreword. A European Annex, usually Annex ZA or ZZ, describes how this publication relates to that EU legislation.

For the Great Britain market (England, Scotland and Wales), if UK Government has designated this publication for conformity with UKCA marking (or similar) legislation, it may contain an additional National Annex. Where such a National Annex exists, it shows the correlation between this publication and the relevant UK legislation. If there is no National Annex of this kind, the relevant Annex ZA or ZZ in the body of the European text will indicate the relationship to UK regulation applicable in Great Britain. References to EU legislation may need to be read in accordance with the UK designation and the applicable UK law. Further information on designated standards can be found at www.bsigroup.com/standardsandregulation.

For the Northern Ireland market, UK law will continue to implement relevant EU law subject to periodic confirmation. Therefore Annex ZA/ZZ in the European text, and references to EU legislation, are still valid for this market.

UK Government is responsible for legislation. For information on legislation and policies relating to that legislation, consult the relevant pages of www.gov.uk.

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ICS 75.200

Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 30 September 2021.

Amendments/corrigenda issued since publication

Date	Text affected
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EUROPÄISCHE NORM

September 2021

ICS 75.200

Supersedes EN 13012:2012

English Version

Petrol filling stations - Construction and performance of automatic nozzles for use on fuel dispensers

Stations-service - Construction et performances des pistolets automatiques de remplissage utilisés sur les distributeurs de carburant

Tankstellen - Anforderungen an Bau und Arbeitsweise von automatischen Zapfventilen für die Benutzung an Zapfsäulen

This European Standard was approved by CEN on 14 June 2021.

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
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CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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Contents	Page
European foreword	4
1 Scope	5
2 Normative references	5
3 Terms and definitions	6
4 Construction	7
4.1 General	7
4.2 Guard	8
4.3 Inlet threads	8
4.4 Safe break	10
4.5 Latch	10
4.6 Automatic de-activating mechanism	10
5 Physical properties	10
6 Functional requirements	10
7 Frequency of testing	11
8 Marking and instruction	12
9 Environmental aspects	13
Annex A (normative) Test preconditioning	14
A.1 General	14
A.2 Bending moment preconditioning	14
A.3 Liquid compatibility pre-conditioning	14
Annex B (normative) Test methods	15
B.1 Electrical resistance test	15
B.2 Pressure test	15
B.3 Drop test	15
B.4 Tightness test 1	16
B.5 Automatic shut-off device test 1	16
B.6 Drain test	18
B.7 Attitude device test 1	18
B.8 Attitude device test 2	19
B.9 Automatic de-activating mechanism test	19
B.10 Line shock generated test	20
B.11 Tightness test 2	20
B.12 Automatic shut-off device test 2	20
B.13 Attitude device test 3	20
Annex C (informative) Environmental aspects	21

This is a preview of "BS EN 13012:2021". [Click here to purchase the full version from the ANSI store.](#)

Annex ZA (informative) Relationship between this European Standard and the essential requirements of Directive 2014/34/EU aimed to be covered	24
Bibliography	26

This is a preview of "BS EN 13012:2021". [Click here to purchase the full version from the ANSI store.](#)

European foreword

This document (EN 13012:2021) has been prepared by Technical Committee CEN/TC 393 "Equipment for storage tanks and for 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 March 2022, and conflicting national standards shall be withdrawn at the latest by March 2024.

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 13012:2012.

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.

In comparison with the 2012 edition, the following significant changes were made:

- nozzles for aqueous urea solution added;
- Table 2 corrected to ensure compatibility between components according to EN 13012:2021, EN 13617-2:2021, EN 13617-4:2021 and EN 1360:2013.
- the liquid compatibility preconditioning fluid for fuel nozzles is defined in EN 13617-1:2021.

Any feedback and questions on this document should be directed to the users' national standards body. A complete listing of these bodies can be found on the CEN website.

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.

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1 Scope

This document specifies safety and environmental requirements for the construction and performance of nozzles to be fitted to metering pumps and dispensers installed at filling stations and which are used to dispense liquid fuels and aqueous urea solution into the tanks of motor vehicles, boats and light aircraft and into portable containers, at flow rates up to $200 \text{ l} \cdot \text{min}^{-1}$.

This document applies to fuels of subdivision Group IIA according to EN ISO/IEC 80079-20-1 and also aqueous urea solution according to ISO 22241-1. The requirements apply to automatic nozzles dispensing liquid at ambient temperatures from $-20 \text{ }^\circ\text{C}$ to $+40 \text{ }^\circ\text{C}$ with the possibility for an extended temperature range.

This document does not apply to equipment dispensing compressed or liquefied gases.

This document does not include any requirements for metering performance. Vapour recovery efficiency rates are not covered in this document.

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 1360:2013, *Rubber and plastic hoses and hose assemblies for measured fuel dispensing systems - Specification*

EN 13617-1:2021, *Petrol filling stations - Part 1: Safety requirements for construction and performance of metering pumps, dispensers and remote pumping units*

EN 13617-2:2021, *Petrol filling stations - Part 2: Safety requirements for construction and performance of safe breaks for use on metering pumps and dispensers*

EN 60204-1:2018, *Safety of machinery - Electrical equipment of machines - Part 1: General requirements (IEC 60204-1:2016, modified)*

EN IEC 60079-0:2018, *Explosive atmospheres - Part 0: Equipment - General requirements (IEC 60079-0:2017)*

EN ISO 228-1:2003, *Pipe threads where pressure-tight joints are not made on the threads - Part 1: Dimensions, tolerances and designation (ISO 228-1:2000)*

EN ISO 80079-36:2016, *Explosive atmospheres - Part 36: Non-electrical equipment for explosive atmospheres - Basic method and requirements (ISO 80079-36:2016)*

ISO 261:1998, *ISO general purpose metric screw threads — General plan*

ISO 965-2:1998, *ISO general purpose metric screw threads — Tolerances — Part 2: Limits of sizes for general purpose external and internal screw threads — Medium quality*

ISO 9158:1988, *Road vehicles — Nozzle spouts for unleaded gasoline*

ISO 9159:1988, *Road vehicles — Nozzle spouts for leaded gasoline and diesel fuel*

ISO 11925-3:1997, *Reaction to fire tests — Ignitability of building products subjected to direct impingement of flame — Part 3: Multi-source test*