

<b>STN</b>	<b>Stabilné hasiace zariadenia Komponenty pre sprinklerové a vodné rozstrekovacie zariadenia Časť 14: Sprinklery pre budovy na bývanie a ubytovanie</b>	<b>STN EN 12259-14+A2</b>  92 0407
------------	---	--

Fixed firefighting systems - Components for sprinkler and water spray systems - Part 14: Sprinklers for residential applications

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. 10/24

Obsahuje: EN 12259-14:2020+A2:2024

Oznámením tejto normy sa ruší  
STN EN 12259-14+A1 (92 0407) z augusta 2022

**139348**

---

Úrad pre normalizáciu, metrológiu a skúšobníctvo Slovenskej republiky, 2024  
Slovenská technická norma a technická normalizačná informácia je chránená zákonom č. 60/2018 Z. z. o technickej normalizácii  
v znení neskorších predpisov.

EUROPEAN STANDARD

**EN 12259-14:2020+A2**

NORME EUROPÉENNE

EUROPÄISCHE NORM

August 2024

ICS 13.220.20

Supersedes EN 12259-14:2020+A1:2022

English Version

## Fixed firefighting systems - Components for sprinkler and water spray systems - Part 14: Sprinklers for residential applications

Installations fixes de lutte contre l'incendie -  
Composants des systèmes d'extinction du type  
sprinkleur et à pulvérisation d'eau - Partie 14:  
Sprinkleurs pour applications résidentielles

Ortsfeste Brandbekämpfungsanlagen - Bauteile für  
Sprinkler- und Sprühwasseranlagen - Teil 14: Sprinkler  
für die Anwendung im Wohnbereich

This European Standard was approved by CEN on 4 November 2019 and includes Amendment 1 approved by CEN on 13 March 2022 and Amendment 2 approved by CEN on 14 July 2024.

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, Türkiye and United Kingdom.



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

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

## EN 12259-14:2020+A2:2024 (E)

<b>Contents</b>	<b>Page</b>
European foreword.....	4
<b>1 Scope</b> .....	<b>5</b>
<b>2 Normative references</b> .....	<b>5</b>
<b>3 Terms and definitions</b> .....	<b>5</b>
<b>4 Construction and performance</b> .....	<b>8</b>
4.1 General.....	8
4.2 Dimensions and pressure rating.....	8
4.3 Nominal operating temperature.....	8
4.4 Operating temperatures.....	9
4.5 Water flow and distribution.....	9
4.6 Function.....	10
4.7 Fire Test.....	10
4.8 Strength of sprinkler body and deflector.....	11
4.9 Strength of release element.....	11
4.10 Leak resistance and hydrostatic strength.....	12
4.11 Heat exposure.....	12
4.12 Corrosion.....	13
4.13 Water hammer.....	13
4.14 Thermal response.....	14
4.15 Resistance to vibration.....	14
4.16 Resistance to impact.....	14
4.17 Resistance to low temperature.....	14
4.18 Resistance to heat.....	14
4.19 Test conditions.....	14
<b>5 Marking</b> .....	<b>14</b>
5.1 General.....	14
5.2 Identification number.....	14
5.3 Nominal operating temperature and year of manufacture.....	15
5.4 Manufacturing location.....	15
5.5 Heat sensitive element supplier.....	15
5.6 Protective covers.....	15
5.7 Sidewall sprinklers.....	15
5.8 Concealed sprinklers.....	15
5.9 Removable recessed housing.....	16
<b>6 Instruction charts</b> .....	<b>16</b>
6.1 General.....	16
6.2 Installation Instructions.....	16
<b>Annex A (normative) Conditions for tests</b> .....	<b>18</b>
<b>Annex B (normative) Water flow test</b> .....	<b>19</b>
<b>Annex C (normative) Water distribution test</b> .....	<b>21</b>
<b>Annex D (normative) Fire test</b> .....	<b>27</b>
<b>Annex E (normative) Function test</b> .....	<b>37</b>

<b>Annex F (normative) Strength of sprinkler body and deflector .....</b>	<b>39</b>
<b>Annex G (normative) Strength of release elements test.....</b>	<b>41</b>
<b>Annex H (normative) Leak resistance tests .....</b>	<b>44</b>
<b>Annex I (normative) Heat exposure.....</b>	<b>45</b>
<b>Annex J (normative) Glass bulb sprinkler thermal shock test .....</b>	<b>46</b>
<b>Annex K (normative) Exposure and corrosion tests .....</b>	<b>47</b>
<b>Annex L (normative) Water hammer test.....</b>	<b>51</b>
<b>Annex M (normative) Thermal response test.....</b>	<b>52</b>
<b>Annex N (normative) Vibration test.....</b>	<b>57</b>
<b>Annex O (normative) Impact test.....</b>	<b>58</b>
<b>Annex P (normative) Resistance to low temperature test.....</b>	<b>59</b>
<b>Annex Q (normative) Resistance to high temperature test.....</b>	<b>60</b>
<b>Bibliography .....</b>	<b>61</b>

**EN 12259-14:2020+A2:2024 (E)****European foreword**

This document (EN 12259-14:2020+A2:2024) has been prepared by Technical Committee CEN/TC 191 “Fixed firefighting systems”, the secretariat of which is held by BSI.

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 February 2025, and conflicting national standards shall be withdrawn at the latest by February 2025.

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 includes Amendment 1 approved by CEN on 13 March 2022 and Amendment 2 approved by CEN on 14 July 2024.

This document supersedes **A1** EN 12259-14:2020+A1:2022 **A1**.

The start and finish of text introduced or altered by amendment is indicated in the text by tags **A1** **A1** and **A2** **A2**.

**A2** In comparison with EN 12259-14:2020, technical modifications have been made to clarify the types of sprinkler seal that are covered by this document in Amendment 1. In Amendment 2 the pressure values in C.1.1 and C.2.1 were corrected as well as the unit for the force increase in G.1. **A2**

It is included in a series of European Standards planned to cover:

- automatic sprinkler systems (EN 12259 and EN 12845);
- gas extinguishing systems (EN 12094);
- powder systems (EN 12416);
- foam systems (EN 13565);
- hydrant and hose reel systems (EN 671);
- smoke and heat control systems (EN 12101).

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.

## 1 Scope

Ⓐ<sub>1</sub> This document specifies requirements for the construction and performance of residential sprinklers as well as test methods for their type approval, which are operated by a change of state of an element or bursting of a glass bulb under the influence of heat and incorporating the following types of water seals:

- conical metal spring with a PTFE gasket or coating;
- metal cap or disc with PTFE gasket or coating;
- copper gasket, with or without a PTFE coating.

Sprinklers in accordance with this document are only used in automatic sprinkler systems for domestic and residential applications as defined in EN 16925. Ⓐ<sub>1</sub>

## 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.

Ⓐ<sub>1</sub> EN 12259-1:1999+A1:2001<sup>1</sup> Ⓐ<sub>1</sub>, *Fixed firefighting systems — Components for sprinkler and water spray systems — Part 1: Sprinklers*

EN 13501-1, *Fire classification of construction products and building elements - Part 1: Classification using data from reaction to fire tests*

EN 16925, *Fixed firefighting systems - Automatic residential sprinkler systems - Design, installation and maintenance*

ISO 7-1, *Pipe threads where pressure-tight joints are made on the threads — Part 1: Dimensions, tolerances and designation*

ISO 49, *Malleable cast iron fittings threaded to ISO 7-1*

ISO 65, *Carbon steel tubes suitable for screwing in accordance with ISO 7-1*

ISO 5658-2:2006, *Reaction to fire tests — Spread of flame — Part 2: Lateral spread on building and transport products in vertical configuration*

ISO 5660-1:2015, *Reaction-to-fire tests — Heat release, smoke production and mass loss rate — Part 1: Heat release rate (cone calorimeter method) and smoke production rate (dynamic measurement)*

UL 723, *Standard for test for surface burning characteristics of building materials*

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

---

<sup>1</sup> Ⓐ<sub>1</sub> As impacted by EN 12259-1:1999+A1:2001/A2:2004 and EN 12259-1:1999+A1:2001/A3:2006. Ⓐ<sub>1</sub>