



SLOVENSKI STANDARD
SIST EN 12259-1:2000 + A1:2001/A2:2004
01-julij-2004

J[fU^bYbUdfUj Y'nU[UýYb^Y!'GYghUj b]XY]gdf]b_`Yfg_l `g]ghYa cj `]b`g]ghYa cj `g
dfýY c`j cXc`!`%`XY.`Gdf]b_`Yf¶

Fixed firefighting systems components for sprinkler and waterspray systems - Part 1:
Sprinklers

Ortsfeste Löschanlagen - Bauteile für Sprinkler- und Sprühwasseranlagen - Teil 1:
Sprinkler

iTeh STANDARD PREVIEW
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Installations fixes de lutte contre l'incendie - Composants des systemes d'extinction du
type Sprinkleur et a pulvérisation d'eau - Partie 1: Sprinkleurs

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c93b64512503/sist-en-12259-1-2000-a1-2001-a2-2004](https://standards.iteh.ai/catalog/standards/sist/ab5de554-89aa-487d-8b7a-c93b64512503/sist-en-12259-1-2000-a1-2001-a2-2004)

Ta slovenski standard je istoveten z: EN 12259-1:1999 + A1:2001/A2:2004

ICS:

13.220.10 Gašenje požara Fire-fighting

SIST EN 12259-1:2000 + A1:2001/A2:2004 **en**

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

**EN 12259-1:1999 +
A1:2001/A2**

May 2004

ICS 13.220.20

English version

Fixed firefighting systems components for sprinkler and waterspray systems - Part 1: Sprinklers

Installations fixes de lutte contre l'incendie - Composants
des systèmes d'extinction du type Sprinkleur et à
pulvérisation d'eau - Partie 1: Sprinkleurs

Ortsfeste Löschanlagen - Bauteile für Sprinkler- und
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This amendment A2 modifies the European Standard ; it was approved by CEN on 3 November 2003.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for inclusion of this amendment into the relevant national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This amendment 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 Central Secretariat has the same status as the official versions.

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

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

Management Centre: rue de Stassart, 36 B-1050 Brussels

EN 12259-1:1999+A1:2001/A2:2004 (E)**Foreword**

This document (EN 12259-1:1999+A1:2001/A2:2004) has been prepared by Technical Committee CEN/TC 191 "Fixed firefighting systems", the secretariat of which is held by BSI.

This Amendment to the European Standard EN 12259-1:1999+A1:2001 shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by November 2004, and conflicting national standards shall be withdrawn at the latest by August 2005.

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 the Construction Products Directive (89/106/EEC).

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

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Clause 2 at the end of the existing references add:

"EN 60751, Industrial platinum resistance thermometer sensors (IEC 60751:1983 + A1:1986)"

In clause 4.4 delete the existing text including Table 3 and substitute:

"4.4 Operating temperatures

When testing in accordance with annex B, sprinklers shall operate at a temperature within the range

$[t \pm (0,035 t + 0,62)]$ °C

where t is the nominal operating temperature"

Table 4:

Renumber as Table 3.

Table 5:

Renumber as Table 4.

Table 6:

Renumber as Table 5.

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EN 12259-1:1999+A1:2001/A2:2004 (E)

Figure 2

Delete the existing figure and substitute:



Figure 2 — Standard orientation RTI and C factor limits

Table 7:

Renumber as Table 6.

Annex B delete the existing text and substitute:

"Annex B (normative)

Test to determine operating temperatures of fusible link sprinklers and glass bulb sprinklers

NOTE See 4.4.

B.1 Apparatus

B.1.1 *Laboratory temperature measuring device*, having an accuracy of $\pm 0,25\%$ of the nominal temperature rating, calibrated to a depth of 40mm immersion, for determining temperatures of liquids in bath tests and operating temperatures. The bulb of the thermometer shall be held level with the sprinkler operating parts by a support member. To control the temperature in the thermal bath a PT100 sensor conforming to EN 60751 or equivalent shall be used.

B.1.2 *Liquid bath*, of demineralized water, for sprinklers having nominal operating temperatures less than or equal to 80 °C.

NOTE An example of a typical bath is given in Figure B.1.

B.1.3 *Liquid bath*, of glycerine, vegetable oil or synthetic oil, for sprinklers with higher rated elements.

B.2 Procedure

"Heat 30 glass bulb sprinklers or 30 fusible link sprinklers in a liquid bath from a temperature of (20 ± 5) °C to an intermediate temperature of $(20 \begin{smallmatrix} +2 \\ 0 \end{smallmatrix})$ °C below their nominal operating temperature. The rate of increase of temperature shall not exceed 20 °C min^{-1} . Maintain the intermediate temperature for 10 min. Then increase the temperature at a rate of $(0,5 \pm 0,1)$ °C min^{-1} until the sprinkler operates.

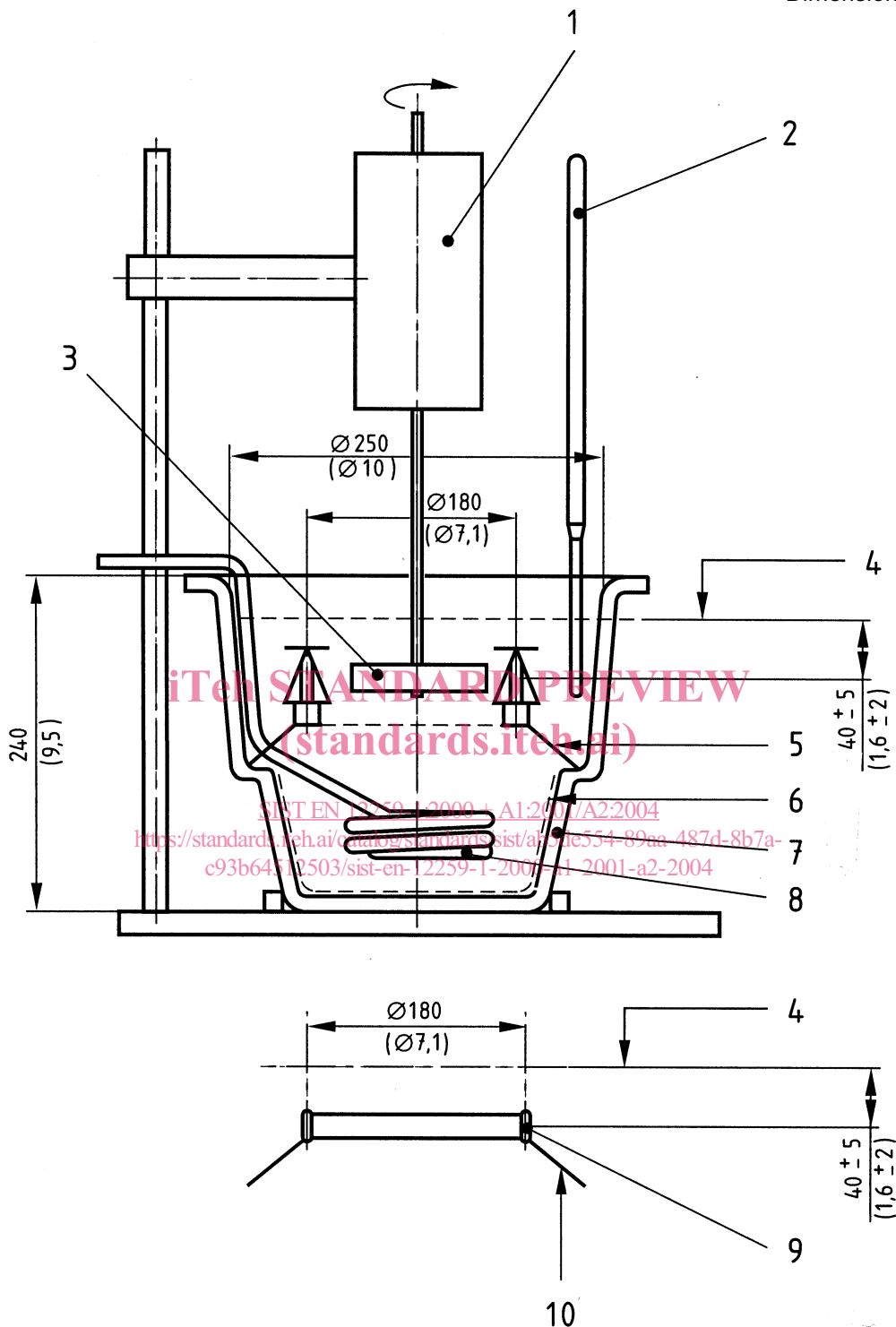
Determine the nominal operating temperature with the laboratory temperature measuring device having an accuracy of $\pm 0,25\%$ of the nominal temperature rating.

The sprinklers shall be located in the vertical position and totally immersed by the liquid cover of $(5 \begin{smallmatrix} +3 \\ 0 \end{smallmatrix})$ mm. The test zone shall be located at a distance, below the liquid surface, level with the geometric centre of the glass bulb or fusible element. The test zone shall be at not less than (40 ± 5) mm below the liquid surface level. The temperature deviation within the test zone shall be within $0,25$ °C.

Any rupture of a glass bulb within the prescribed temperature range shall constitute an operation. Partial fractures of glass bulbs which do not result in sprinkler operation shall necessitate an additional functional test (see 4.6.1).

Insert new figure B.1

Dimensions in millimetres

**Key**

- | | |
|---|-----------------------------------|
| 1 Speed agitator 150 RPM | 6 Mesh screen |
| 2 Thermometer calibrated for 40mm(1,6) immersion and PT 100 | 7 Standard glass vessel (7l) |
| 3 Double wing 100mm x 20 mm | 8 Immersion heater |
| 4 Liquid level | 9 Glass bulbs |
| 5 Ring to support: 10 sprinklers 3/4" or 15 sprinklers 1/2" | 10 Ring to support 50 glass bulbs |

Figure B.1 — A typical liquid bath