

Fixed firefighting systems — Components for sprinkler and water spray systems —

Part 4: Water motor alarms

The European Standard EN 12259-4:2000, with the incorporation of Amendment A1:2001, has the status of a British Standard

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National foreword

This British Standard is the official English language version of EN 12259-4:2000, including amendment A1:2001.

This European Standard is the subject to transitional arrangements agreed under a Commission mandate which is intended to lead to CE marking in support of the Construction Products Directive. In order to allow for any changes in national regulations, the Member States have agreed a transition period.

This period (date of applicability) started with an announcement in the Official Journal of the European Communities(OJ) on 1 January 2002. The transition period will end on 1 January 2003.

The UK participation in its preparation was entrusted by Technical Committee FSH/18, Fixed firefighting systems, to Subcommittee FSH/18/2, Sprinklers, which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible international/European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

A list of organizations represented on this subcommittee can be obtained on request to its secretary.

Cross-references

The British Standards which implement international or European publications referred to in this document may be found in the *BSI Catalogue* under the section entitled “International Standards Correspondence Index”, or by using the “Search” facility of the *BSI Electronic Catalogue* or of British Standards Online.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, the EN title page, pages 2 to 27 and a back cover.

The BSI copyright date displayed in this document indicates when the document was last issued.

Sideline in this document indicates the most recent changes by amendment.

Amendments issued since publication

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English version

**Fixed firefighting systems – Components for sprinkler and water
spray systems – Part 4: Water motor alarms
(includes amendment A1:2001)**

Installations fixes de lutte contre l'incendie – Composants
des systèmes d'extinctions du type Sprinkleur et à
pulvérisation d'eau – Partie 4: Turbines hydrauliques
d'alarmes
(inclut l'amendement A1:2001)

Ortsfeste Löschanlagen – Bauteile für Sprinkler- und
Sprühwasseranlagen – Teil 4: Wassergetriebene
Alarmglocken
(enthält Änderung A1:2001)

This European Standard was approved by CEN on 17 December 1999. Amendment A1:2001 was approved by CEN on 20 January 2001.

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

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.



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

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Foreword

This European Standard 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 August 2000, and conflicting national standards shall be withdrawn at the latest by August 2000.

This European Standard 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).

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

This part of EN 12259 is one of a number of European Standards prepared by CEN/TC 191 covering components for automatic sprinkler and water spray systems.

They are included in a series of European Standards planned to cover:

- a) automatic sprinkler systems (EN 12259¹⁾);
- b) carbon dioxide systems (EN 12094¹⁾);
- c) powder systems (EN 12416¹⁾);
- d) explosion protection systems (EN 26184¹⁾);
- e) foam systems (EN 13565¹⁾);
- f) gas systems (EN ISO 14520 and EN 12094¹⁾);
- g) hydrant and hose reel systems (EN 671¹⁾);
- h) smoke and heat control systems (EN 12101¹⁾);
- i) water spray systems¹⁾.

¹⁾ Under preparation.

EN 12259 has the general title Fixed firefighting systems - Components for sprinkler and water spray systems, and will consist of the following parts:

- Part 1: Sprinklers;
- Part 2: Wet alarm valve assemblies;
- Part 3: Dry alarm valve assemblies;
- Part 4: Water motor alarms;
- Part 5: Water flow detectors;
- Part 6: Pipe couplings;
- Part 7: Pipe hangers;
- Part 8: Pressure switches;
- Part 9: Deluge alarm valve assemblies;
- Part 10: Multiple controls;
- Part 11: Medium and high velocity water sprayers;
- Part 12: Pump sets.

Annexes A, B, C, D, E, F and G give test methods and are normative.

Annex H gives an example of a test schedule suitable for type approval of conventional designs and is informative.

Where reference is made to the application of components having imperial dimensions, it has been necessary to use imperial units where appropriate.

This standard is to be entrusted for use to qualified and experienced organisations which have a capability to design and manufacture to recognized international standards.

Foreword to amendment A1

This amendment EN 12259-4:2000/A1:2001 to the EN 12259-4:2000 has been prepared by Technical Committee CEN/TC 191, Fixed fire fighting systems, the Secretariat of which is held by BSI.

This amendment to the European Standard EN 12259-4:2000 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 standard.

It forms one part of EN 12259, covering components for automatic sprinkler systems and is included in a series of European Standards planned to cover:

- a) automatic sprinkler systems (EN 12259 & EN 12845)¹;
- b) gaseous extinguishing systems (EN 12094)¹;
- c) powder systems (EN 12416)¹;
- d) explosion protection systems (EN 26184);
- e) foam systems (EN 13565);
- f) hydrant and hose reel systems (EN 671);
- g) smoke and heat control systems (EN 12101)¹;
- h) water spray systems¹.

EN 12259 has the general title, *Fixed fire fighting systems — Components for sprinkler and water spray systems*, and will be subdivided as follows:

- Part 1: Sprinklers;
- Part 2: Wet alarm valve assemblies;
- Part 3: Dry alarm valve assemblies;
- Part 4: Water motor alarms;
- Part 5: Water flow detectors;
- Part 6: Pipe couplings;
- Part 7: Pipe hangers;
- Part 8: Pressure switches;
- Part 9: Deluge alarm valve assemblies;
- Part 10: Multiple controls;
- Part 11: Medium and high velocity water sprayers;
- Part 12: Sprinkler pump sets.

Annexes A, B, C, D, E, F and G, give test methods and are normative.

Annex H gives an example of a test schedule suitable for type approval of conventional designs, and is informative.

Introduction

Where reference is made to the application of components having imperial dimensions it has been necessary to use imperial units where appropriate.

This standard is to be entrusted for use to qualified and experienced organizations which have a capability to design and manufacture systems complying with recognized international standards.

1 Scope

This part of EN 12259 specifies requirements for construction and performance of water motor alarms for use in conjunction with alarm valves conforming to EN 12259-2, EN 12259-3 and prEN 12259-9:1999 used in automatic sprinkler systems complying with prEN 12845:1997 and water spray systems conforming to the relevant European Standard¹⁾.

Type approval tests and a recommended test schedule for type approval testing are also given.

Auxiliary components or attachments to water motor alarms are not covered by this part of EN 12259.

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

EN 12259-2	Fixed firefighting systems - Components for sprinkler and water spray systems - Part 2: Wet alarm valve assemblies.
EN 12259-3	Fixed firefighting systems - Components for sprinkler and water spray systems - Part 3: Dry alarm valve assemblies.
prEN 12259-9:1999	Fixed firefighting systems - Components for sprinkler and water spray systems - Part 9: Deluge valves.

¹⁾ Under preparation.

prEN 12845:1997	Fixed firefighting systems - Automatic sprinkler systems - Design and installation.
ISO 7-1	Pipe threads where pressure-tight joints are made on the threads - Part 1: Dimensions, tolerances and designation.

3 Terms and definitions

For the purposes of this standard, the following terms and definitions apply.

3.1

water motor alarm

hydraulically actuated alarm device fitted to an alarm valve to provide a local audible alarm when the sprinkler installation operates

3.2

alarm valve

check valve, of the wet, dry or deluge type that also initiates the water motor alarm when the sprinkler installation operates

3.3

pelton wheel

device which is rotated by the impingement of a water jet

3.4

rated working pressure

maximum pressure at which the device is intended to operate

3.5

minimum response pressure

lowest pressure at the water motor alarm inlet which causes rotating parts to turn continuously

4 Construction requirements

4.1 Connections

4.1.1 All threaded waterway connections shall comply with ISO 7-1.

4.1.2 The water motor alarm shall have:

- a) a threaded opening for the water supply of not less than 20 mm nominal diameter; and
- b) a threaded drain connection with a cross-sectional area of at least 50 times the cross-sectional area of the water motor alarm nozzle bore.