

Fixed firefighting systems — Components for gas extinguishing systems —

Part 12: Requirements and test methods for pneumatic alarm devices

The European Standard EN 12094-12:2003 has the status of a
British Standard

ICS 13.220.20; 13.320

National foreword

This British Standard is the official English language version of EN 12094-12:2003.

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 of 30 months before CE marking becomes effective.

The UK participation in its preparation was entrusted by Technical Committee FSH/18, Fixed fire fighting systems, to Subcommittee FSH/18/6, Gaseous extinguishing systems, 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.

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This British Standard, was published under the authority of the Standards Policy and Strategy Committee on 1 July 2003

Summary of pages

This document comprises a front cover, an inside front cover, the EN title page, pages 2 to 23 and a back cover.

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

Amendments issued since publication

Amd. No.	Date	Comments

© BSI 1 July 2003

English version

**Fixed firefighting systems - Components for gas extinguishing
systems - Part 12: Requirements and test methods for
pneumatic alarm devices**

Installations fixes de lutte contre l'incendie - Eléments
constitutifs pour systèmes d'extinction à gaz - Partie 12:
Exigences et méthodes d'essai pour dispositifs
pneumatiques d'alarme

Ortsfeste Brandbekämpfungsanlagen - Bauteile für
Löschanlagen mit gasförmigen Löschmitteln - Teil 12:
Anforderungen und Prüfverfahren für pneumatische
Alarmgeräte

This European Standard was approved by CEN on 7 November 2002.

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 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 Management Centre 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, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and United Kingdom.



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Foreword

This document (EN 12094-12:2003) has been prepared by CEN/TC 191 "Fixed firefighting system", 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 September 2003, and conflicting national standards shall be withdrawn at the latest by September 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 EU Directive(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document.

This part of EN 12094 is one of a number of European Standards prepared by CEN/TC 191 covering components for gas extinguishing systems.

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

- gas extinguishing systems (EN 12094);
- sprinkler systems (EN 12259:1999+A1 and EN 12845);
- powder systems (EN 12416);
- explosion protection systems (EN 26184);
- foam systems (EN 13565);
- hose systems (EN 671);
- smoke and heat control systems (EN 12101);
- water spray systems¹⁾.

This European Standard has the general title "*Fixed firefighting systems – Components for gas extinguishing systems*" and will consist of the following parts:

- Part 1: *Requirements and test methods for electrical automatic control and delay devices*
- Part 2: *Requirements and test methods for non-electrical automatic control and delay devices*
- Part 3: *Requirements and test methods for manual triggering and stop devices*
- Part 4: *Requirements and test methods for high pressure container valve assemblies and their actuators*
- Part 5: *Requirements and test methods for high and low pressure selector valves and their actuators for CO₂ systems*
- Part 6: *Requirements and test methods for non-electrical disable devices for CO₂ systems*

¹⁾ Under preparation.

- Part 7: *Requirements and test methods for nozzles for CO₂ systems*
- Part 8: *Requirements and test methods for flexible connectors for CO₂ systems*
- Part 9: *Requirements and test methods for special fire detectors*
- Part 10: *Requirements and test methods for pressure gauges and pressure switches*
- Part 11: *Requirements and test methods for mechanical weighing devices*
- Part 12: *Requirements and test methods for pneumatic alarm devices*
- Part 13: *Requirements and test methods for check valves and non-return valves*
- Part 16: *Requirements and test methods for odorizing devices for CO₂ low pressure systems*
- Part 17: *Pipe hangers*
- Part 20: *Requirements and test methods for the compatibility of components*

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, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and the United Kingdom.

Introduction

It has been assumed in the preparation of this European Standard that the execution of its provisions is entrusted to appropriately qualified and experienced people.

All pressure data in this European Standard are given as gauge pressures in bar, unless otherwise stated.

NOTE 1 bar = 10^5 N m^{-2} = 100 kPa.

1 Scope

This European Standard specifies requirements and test methods for surface mounted audible alarm devices powered by pneumatic energy (pneumatic alarm devices) to warn persons in flooding zones of CO₂-, Inert Gas- or Halocarbon gas fire extinguishing systems.

2 Normative references

This European Standard incorporates by dated or undated references, 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 60068-2-6:1995, *Environmental testing - Part 2: Tests - Test Fc: Vibration (sinusoidal)* (IEC 60068-2-6:1995 + Corrigendum 1995).

EN 60651:1994, *Sound level meters* (IEC 60651:1993).

ISO 209-1; *Wrought aluminium and aluminium alloys - Chemical composition and forms of products - Part 1: Chemical composition*

3 Terms and definitions

For the purposes of this European Standard, the following terms and definitions apply:

3.1

A-weighted sound level

Sound pressure, expressed in dB, which is 20 times the logarithm to base ten of the ratio of the A-weighted sound pressure to the reference pressure of 20 μ Pa (20 μ N/m²). A-weighting characteristics are given in EN 60651:1994

3.2

CO₂-high-pressure installation

fire extinguishing installation in which the CO₂ is stored at ambient temperature. For example, the pressure of the CO₂ in storage is $p_{abs} = 58,6$ bar at 21 °C

3.3

CO₂-low-pressure installation

fire extinguishing installation in which the CO₂ is stored at low temperature, normally – 19 °C to – 21 °C

3.4

halocarbon gas

extinguishing agent that contains as primary components one or more organic compounds containing one or more of the elements fluorine, chlorine, bromine or iodine

3.5

halocarbon gas installation

fire extinguishing installation in which the halocarbon gas is stored at ambient temperature