

Fixed firefighting systems — Components for gas extinguishing systems —

Part 5: Requirements and test methods for high and low pressure selector valves and their actuators for CO₂ systems

The European Standard EN 12094-5:2000 has the status of a
British Standard

ICS 13.220.10; 13.220.20

National foreword

This British Standard is the official English language version of EN 12094-5:2000.

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 21 months before CE marking becomes effective.

The UK participation in its preparation was entrusted by Technical Committee FSH/18, Fixed firefighting systems, to Subcommittee FSH/18/6, Gaseous extinguishing media and systems, which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible 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 Standards Catalogue under the section entitled “International Standards Correspondence Index”, or by using the “Find” facility of the BSI Standards Electronic Catalogue.

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Summary of pages

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This European Standard was approved by CEN on 18 November 2000.

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, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.



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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 June 2001, and conflicting national standards shall be withdrawn at the latest by September 2002.

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 89/106/EEC.

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

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);
- 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 systems.

The following parts of this European Standard are planned:

- 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 valves assemblies and actuators;
- Part 5: Requirements and test methods for selector valves and actuators for CO₂ systems;
- Part 6: Requirements and test methods for non electrical disable devices for CO₂ systems;
- 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 weighing devices;
- Part 12: Requirements and test methods for 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: Requirements and test methods for pipe hangers;
- Part 20: Requirements and test methods for 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, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

Introduction

It has been assumed in the preparation of this 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 Nm^{-2} = 100 kPa

1 Scope

This European Standard specifies requirements and describes test methods for selector valves and their actuators used in CO₂ firefighting 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 1092, *Flanges and their joints*

EN 12094-8, *Fixed firefighting system — Components for gas extinguishing systems — Part 8: Requirements and test methods for flexible connectors for CO₂ systems*

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

ISO 228-1, *Pipe threads where pressure-tight joints are not made on the threads — Part 1: Dimensions, tolerances and designation*

ISO 7005, *Metallic flanges*

3 Terms and definitions

For the purposes of this European Standard, the terms and definitions of EN 12094-8 and the following terms and definitions apply.

3.1

actuator

component which causes a valve to operate

3.2

container valve

valve, which is intended to close the extinguishing media container and which releases the extinguishing media when the actuator is activated

3.3

fill ratio

mass of extinguishing medium related to the net capacity of a container expressed as kg/l

3.4

functional reliability

ability of function under different working conditions