
**Fire protection — Automatic
sprinkler systems —**

**Part 5:
Requirements and test methods for
deluge valves**

*Protection contre l'incendie — Systèmes d'extinction automatiques de
type sprinkler —*

Partie 5: Exigences et méthodes d'essai des postes déluges



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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 6182-5 was prepared by Technical Committee ISO/TC 21, *Equipment for fire protection and fire fighting*, Subcommittee SC 5, *Fixed firefighting systems using water*.

This third edition cancels and replaces the second edition (ISO 6182-5:2006), which has been technically revised.

ISO 6182 consists of the following parts, under the general title *Fire protection — Automatic sprinkler systems*:

- *Part 1: Requirements and test methods for sprinklers*
- *Part 2: Requirements and test methods for wet alarm valves, retard chambers and water motor alarms*
- *Part 3: Requirements and test methods for dry pipe valves*
- *Part 4: Requirements and test methods for quick-opening devices*
- *Part 5: Requirements and test methods for deluge valves*
- *Part 6: Requirements and test methods for check valves*
- *Part 7: Requirements and test methods for early suppression fast response (ESFR) sprinklers*
- *Part 8: Requirements and test methods for pre-action dry alarm valves*
- *Part 9: Requirements and test methods for water mist nozzles*
- *Part 10: Requirements and test methods for domestic sprinklers*
- *Part 11: Requirements and test methods for pipe hangers*
- *Part 12: Requirements and test methods for grooved-end components for steel pipe systems*

Fire protection — Automatic sprinkler systems —

Part 5: Requirements and test methods for deluge valves

1 Scope

This part of ISO 6182 specifies performance requirements, methods of test and marking requirements for deluge valves and manufacturer's specified relevant trim used in deluge and pre-action automatic fire protection systems. Deluge valves covered by these requirements can be operated by hydraulic, pneumatic, electric, mechanical, manual, or thermal means, or combinations thereof.

Performance and test requirements for other auxiliary components or attachments to deluge valves are not covered by this part of ISO 6182.

This part of ISO 6182 does not cover thermally operated valves released by heat acting directly on the valve. This type of valve utilizes a thermal device, such as the link-and-lever arrangement or glass bulb of a sprinkler, to hold the valve closed. Operation of the thermal device allows the valve to open.

2 Normative references

The following referenced documents are indispensable for the application 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.

ISO 898-1, *Mechanical properties of fasteners made of carbon steel and alloy steel — Part 1: Bolts, screws and studs with specified property classes — Coarse thread and fine pitch thread*

ISO 898-2, *Mechanical properties of fasteners made of carbon steel and alloy steel — Part 2: Nuts with specified property classes — Coarse thread and fine pitch thread*

3 Terms and definitions

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

3.1

alarm device

mechanical or electrical device to sound an alarm upon operation of the valve

3.2

anti-reseat latch

mechanism that prevents the sealing assembly from returning to its closed position after operation

3.3

automatic drain

normally open device that automatically drains water from and vents the intermediate chamber of a valve to the atmosphere when the valve is in the ready position, and limits water flow from the chamber after the valve has tripped

3.4

auxiliary pressure

pressure acting against an auxiliary diaphragm or piston, taken from either the service pressure or an external source