BSI Standards Publication

Fixed firefighting systems — Water mist systems

Part 17: Test protocol for residential occupancies for automatic nozzle systems

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National foreword

This British Standard is the UK implementation of EN 14972-17:2025. It supersedes BS 8458:2015, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee FSH/18/5, Watermist systems.

A list of organizations represented on this committee can be obtained on request to its committee manager.

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Ortsfeste Brandbekämpfungsanlagen - Wassernebelsysteme - Teil 17: Prüfprotokoll für Wohnbelegungen für automatische Düsensysteme

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European foreword

This document (EN 14972-17:2025) 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of an identical text or by endorsement, at the latest by January 2026, and conflicting national standards shall be withdrawn at the latest by January 2026.

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

EN 14972, *Fixed firefighting systems — Water mist systems*, consists of the following parts:

— *Part 1: Design, installation, inspection and maintenance;*

— *Part 2: Test protocol for shopping areas for automatic nozzle systems;*

— *Part 3: Test protocol for office, school class rooms and hotel for automatic nozzle systems;*

— *Part 4: Test protocol for non-storage occupancies for automatic nozzle systems;*

— *Part 5: Test protocol for car garages for automatic nozzle systems;*

— *Part 6: Test protocol for false floors and false ceilings for automatic nozzle systems;*

— *Part 7: Test protocol for commercial low hazard occupancies for automatic nozzle systems;*

— *Part 8: Test protocol for machinery in enclosures exceeding 260 m^3 for open nozzle systems;*

— *Part 9: Test protocol for machinery in enclosures not exceeding 260 m^3 for open nozzle systems;*

— *Part 10: Test protocol for atrium protection with sidewall nozzles for open nozzle systems;*

— *Part 11: Test protocol for cable tunnels for open nozzle systems;*

— *Part 12: Test protocol for commercial deep fat cooking fryers for manually activated open nozzle systems;*

— *Part 13: Test protocol for wet benches and other similar processing equipment for open nozzle systems;*

— *Part 14: Test protocol for combustion turbines in enclosures exceeding 260 m^3 for open nozzle systems;*

— *Part 15: Test protocol for combustion turbines in enclosures not exceeding 260 m^3 for open nozzle systems;*

— *Part 16: Test protocol for industrial oil cookers for open nozzle systems;*

— *Part 17: Test protocol for residential occupancies for automatic nozzle systems.*

NOTE This list includes standards that are in preparation and other standards might be added. For current status of published standards refer to www.cencenelec.eu.

Any feedback and questions on this document should be directed to the users' national standards body. A complete listing of these bodies can be found on the CEN website.

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1 Scope

This document specifies fire testing requirements for water mist systems used for fire protection of domestic and residential occupancies up to a maximum ceiling height of 5,5 m.

EXAMPLE Examples for residential occupancies are family dwelling/house, bed and breakfast, apartment buildings, blocks of flats, care homes, small hotels or hostels, and residential areas in hotel bedrooms and guest corridors.

NOTE Some countries might have a national annex with guidance on the maximum height of the building, minimum design area and any additional requirements.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

EN 520:2004+A1:2009, *Gypsum plasterboards — Definitions, requirements and test methods*

EN 14972-1:2020, *Fixed firefighting systems — Water mist systems — Part 1: Design, installation, inspection and maintenance*

ISO 5660-1, *Reaction-to-fire tests — Heat release, smoke production and mass loss rate — Part 1: Heat release rate (cone calorimeter method) and smoke production rate (dynamic measurement)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 14972-1 apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

4 General requirements

4.1 General

Up to a maximum of 5 nozzles used in the fire tests shall be kept for later verification.

The automatic nozzle system shall be a wet pipe water mist system.

The nozzles shall be automatic nozzles.

Sidewall nozzles shall have the thermal release element within 100 mm to 300 mm below the ceiling and in accordance with the installation instructions.

4.2 Fire test categories

Fire tests are specified in Clause 7.

Room testing with the following fire packages: A, B, C and D, shall be carried out for all ceiling mounted nozzle systems.

Room testing with the following fire packages: F1, F2, F3 and G, shall be carried out for all sidewall mounted nozzle systems.