Draft for Public Comment

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Responsible committee: FSH/18/5 Watermist systems

Interested committees:

Title: Draft BS EN 14972-17 BS Fixed firefighting systems - Water mist systems. Part 17: Test protocol for residential occupancies for automatic nozzle systems.
Please notify the secretary if you are aware of any keywords that might assist in classifying or identifying the standard or if the content of this standard i) has any issues related to 3rd party IPR, patent or copyright ii) affects other national standard(s) iii) requires additional national guidance or information

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Introduction

This draft standard is based on national and international discussions. Your comments on this draft are invited and will assist in the preparation of the consequent standard.

For international standards, comments will be reviewed by the relevant UK national committee before sending the consensus UK vote and comments to the international committee, which will then decide appropriate action. If the international standard is approved, it is usual for the text to be published as a British Standard.

For national standards, comments will be reviewed by the relevant UK national committee and the resulting standards published as a British Standard.

UK Vote

Please indicate whether you consider the UK should submit a negative (with supporting technical reasons) or positive vote on this draft. Please indicate if you are aware of any reason why this draft standard should not be published as a British Standard.

Submission of Comments

- **Annotated drafts are not acceptable and will be rejected.**
- All comments should be submitted online at **https://standardsdevelopment.bsigroup.com/**. You will need to register in order to comment.

Template for comments and secretariat observations

Date: xx/xx/20xx	Document: ISO/DIS xxxx

1	2	(3)	4	5	(6)	7
MB	Clause No./ Subclause No./Annex **(e.g. 3.1)**	Paragraph/ Figure/Table/Note	**Type of comment**	**Commend (justification for change) by the MB**	**Proposed change by the MB**	**Secretariat observations on each comment submitted**
	3.1	Definition 1	ed	Definition is ambiguous and needs clarifying.	Amend to read '...so that the mains connector to which no connection...'	
	6.4	Paragraph 2	te	The use of the UV photometer as an alternative cannot be supported as serious problems have been encountered in its use in the UK.	Delete reference to UV photometer.	

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

DRAFT
prEN 14972-17

August 2024

ICS 13.220.20; 13.220.99

English Version

Fixed firefighting systems - Water mist systems - Part 17: Test protocol for residential occupancies for automatic nozzle systems

Installations fixes de lutte contre l'incendie - Systèmes à brouillard d'eau - Partie 17 : Protocole d'essai des systèmes à buses automatiques pour locaux résidentiels

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

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 191.

If this draft becomes a European Standard, 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.

This draft European Standard was established by CEN 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 CEN-CENELEC Management Centre has the same status as the official versions.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
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European foreword

This document (prEN 14972-17:2024) has been prepared by Technical Committee CEN/TC 191 “Fixed firefighting systems”, the secretariat of which is held by BSI.

This document is currently submitted to the CEN Enquiry.

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 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.

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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 described 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.

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Fire tests for open spaces (larger rooms) or taller rooms are optional and shall be carried out only if requested by the manufacturer.

The fire test that shall be carried out for each fire test series is specified in Table 1.

Descriptions for fire tests for ceiling mounted nozzles are given in Table 2, while Table 3 covers fire test descriptions for sidewall mounted nozzles.

Table 1 — Fire test series

Fire test series	Fire tests for ceiling mounted nozzles	Fire tests for sidewall mounted nozzles	Test room ceiling height
Room [a]	A	F1	2,5 m and 3,5 m
	B, C, D	F2, F3, G	2,5 m or 3,5 m
Open space [b]	E [c]	H [c]	2,5 m or 3,5 m
Taller rooms [b]	A, B, C, D, E [c]	F1, F2, F3, G, H [c]	max. 5,5 m
NOTE Some countries might have a national annex with guidance (additional requirements) on the test room ceiling height.			
[a] Mandatory test series. [b] Optional test series. [c] Two tests.			

Table 2 — Description of fire tests for ceiling mounted nozzles

Fire test	Description	Clause
A	Corner test	7.2
B	Between two nozzle test	7.2
C	Beneath a nozzle test	7.2
D	Ventilation test	7.2
E	Open room test	7.2

Table 3 — Description of fire tests for sidewall mounted nozzles

Fire test	Description	Clause
F1, F2	Corner tests	7.3
F3	Between two nozzle test	7.3
G	Ventilation test	7.3
H	Open room test	7.3

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