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Interested committees:

Title: Draft BS EN 14972-1 :2020/prA1 Fixed firefighting systems. Water mist systems. Part 1: Design, installation, inspection and maintenance.

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- 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 Please indicate if you are aware of any reason why this draft standard should not be published as a British Standard.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
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1	2	(3)	4	5	(6)	7
MB	Clause No./ Subclause No./Annex (e.g. 3.1)	Paragraph/ Figure/Table/Note	Type of comment	Comment (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.	

English Version

Fixed firefighting systems - Water mist systems - Part 1: Design, installation, inspection and maintenance

Installations fixes de lutte contre l'incendie - Systèmes
à brouillard d'eau - Partie 1 : Conception, installation,
inspection et maintenance

Ortsfeste Brandbekämpfungsanlagen - Feinsprüh-
Löschanlagen - Teil 1: Planung, Einbau, Inspektion und
Wartung

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

This draft amendment A1, if approved, will modify the European Standard EN 14972-1:2020. If this draft becomes an amendment, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for inclusion of this amendment into the relevant national standard without any alteration.

This draft amendment 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.

Warning : This document is not a European Standard. It is distributed for review and comments. It is subject to change without notice and shall not be referred to as a European Standard.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

This document (EN 14972-1:2020/prA1:2024) 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.

1 Modification to Clause 3, “Terms and definitions”

Replace the term 3.1.6 with the following:

"

3.1.6

automatic water mist nozzle

component with one or more orifices, which is designed to produce and discharge water mist automatically, where the nozzles operate independently of other nozzles by means of a detection/activation device built into the nozzle

".

2 Modifications to Clause 4, “Design”

Add the following paragraph at the end of 4.1.1:

“If no other tolerance is specified, the general tolerances in Annex S shall be applied.”.

Replace the paragraph in 4.1.3.1 with the following:

“The safe use of a water mist system is limited to applications it has been tested for. Water mist systems shall be tested in accordance with the fire test protocols of the EN 14972 series.

Annex A gives guidelines on how to develop new fire test protocols to be added under the EN 14972 series.

The applicability of the fire test protocols are described in Annexes C through R. For the given application, the relevant annex shall be applied.”

In 4.2.2, item c), add “and storage” to read:

“c) description of hazards and storage”.

In 4.9.4.3, replace Table 1 with the following:

“

Table 1 — Design criteria

Occupancy ^c	Minimum design area ^a	Minimum nozzle quantity ^a	Fire test protocol ^d
Sales areas, storage areas adjacent to sales areas, archives, libraries, technical areas/mechanical floors or similar.	216 m ²	—	EN 14972-2
Cellular offices and open plan offices, areas with counters, restaurants and kitchens, public areas in buildings with low fire load, escape routes or other corridors, churches, museums, hotel rooms, rooms in hospitals, nursing homes, senior citizens residences, flats, training classrooms, recreation areas. As well as further comparable risks.	72 m ²	6	EN 14972-3
Apartments, churches, concealed spaces (greater 800 mm in height), gymnasiums, hospitals and hospital laboratories, hotel rooms, libraries, museums, offices, meeting rooms, restaurant seating areas, kitchens, schools and university class rooms, unused attics, institutions.	140 m ²	9	EN 14972-4
Non-stacking garages, fully enclosed garages and underground garages for horizontal, solid, flat ceilings with heights of 2 m and above.	144 m ² (wet system) 180 m ² (dry system)	—	EN 14972-5
Horizontal false ceilings and false floors between 300 mm and 800 mm.	72 m ²	6	EN 14972-6
Apartments, churches, concealed spaces, gymnasiums, hospitals, hotel rooms, libraries, museums, offices, restaurant seating areas, schools and university class rooms and unused attics.	72 m ²	6	EN 14972-7

Occupancy ^c	Minimum design area ^a	Minimum nozzle quantity ^a	Fire test protocol ^d
Dwelling house, flat, maisonette, transportable home, house of multiple occupation, bed and breakfast accommodation, boarding houses and blocks of flats of 18 m or less in height and with a maximum total floor area of 2 400 m ² .	For rooms greater than 64 m ² : 64 m ²	All nozzles in the largest compartment up to maximum 4.	EN 14972-17
Blocks of flats greater than 18 m up to 45 m in height, sheltered and extra care housing, residential care premises, residential rehabilitation accommodation, dormitories and hostels up to 45 m in height ^b .	For rooms greater than 64 m ² : 64 m ²	4	EN 14972-17
^a Values applicable for wet pipe water mist systems unless indicated. ^b Some countries may have national annex with guidance on the maximum height and any additional requirements for apartment buildings higher than 18 m. ^c The overlap in occupancies described in the table is due to more than one fire test protocol in EN 14972 series, covering the same occupancy. Refer to Annexes C through R, and the DIOM manual, for the minimum design criteria for the respective fire test protocol for the water mist system. ^d The occupancies are intended to be covered by the fire test protocols (see the European foreword). Where available are listed in column and otherwise are in preparation.			

In 4.13.5, replace Table 3 with the following:

“

Table 3 — Minimum discharge operating time

Fire extinguishing systems	Discharge operating time
Wet benches	Twice the extinguishment time. Minimum operation time is 2 min. Time delay limited to 30 s, unless otherwise proven in the tests.
Commercial deep fat cooking fryers	Twice the total time it takes to extinguish the fire and to cool the oil below the auto-ignition temperature in accordance with the fire test protocol. Minimum operation time is 10 min.
Industrial oil cookers	Twice the total time it takes to extinguish the fire and to cool the oil below the flash point in accordance with the fire test protocol. Minimum operation time is 10 min.
Other fire extinguishing systems	Whichever is greater: — twice the longest extinguishment time in the relevant fire tests; — the time to shut down the process equipment; or — 10 min.

In 4.13.5, replace Table 4 with the following:

”

Table 4 — Minimum time of operation

Occupancy	Minimum Operation Time min	Fire test protocol ^a
Sales areas, storage areas adjacent to sales areas, archives, libraries, technical areas or similar.	60	EN 14972-2
Cellular offices and open plan offices, areas with counters, restaurants and kitchens, public areas in buildings of low fire load, escape routes or other corridors, churches, museums, hotel rooms, rooms in hospitals, nursing homes, senior citizens residences, flats, training classrooms, recreation areas. As well as further comparable risks.	60	EN 14972-3
Apartments, churches, concealed spaces (greater 800 mm in height), gymnasiums, hospitals and hospital laboratories, hotel rooms, libraries, museums, offices, meeting rooms, restaurant seating areas, kitchens, schools and university class rooms, unused attics, institutions.	60	EN 14972-4
Non-stacking garages, fully enclosed garages and underground garages for horizontal, solid, flat ceilings with heights of 2 m and above.	60	EN 14972-5
Horizontal false ceilings and false floors between 300 mm and 800 mm.	60	EN 14972-6
Apartments, churches, concealed spaces, gymnasiums, hospitals, hotel rooms, libraries, museums, offices, restaurant seating areas, schools and university class rooms and unused attics.	60	EN 14972-7
Atriums with low or medium fire load, where the fire load is maximum 1,5 m high.	60	EN 14972-10
Cable tunnels with maximum 1 m/s longitudinal ventilation.	30	EN 14972-11
Dwelling house, flat, maisonette, transportable home.	10	EN 14972-17
House of multiple occupation, bed and breakfast accommodation, boarding houses and blocks of flats of 18 m or less in height and with a maximum total floor area of 2 400 m ² .	30	EN 14972-17

Occupancy	Minimum Operation Time min	Fire test protocol ^a
Blocks of flats up to 18 m in height, sheltered and extra care housing, residential care premises, residential rehabilitation accommodation, dormitories and hostels.	30	EN 14972-17
Blocks of flats greater than 18 m up to 45 m in height, sheltered and extra care housing, residential care premises, residential rehabilitation accommodation, dormitories and hostels from 18 m to 45 m in height ^b .	60	EN 14972-17
^a The occupancies are intended to be covered by the fire test protocols (see European Foreword). Where available are listed in column 1 and otherwise are in preparation. ^b Some countries may have national annex with guidance on the maximum height and any additional requirements for apartment buildings higher than 18 m. ^c The overlap in occupancies described in the table is due to more than one fire test protocol in EN 14972 series, covering the same occupancy. Refer to Annexes C through R, and the DIOM manual, for the minimum design criteria for the respective fire test protocol for the water mist system.		

".

In 4.13.7.2, Figure 3, for key part 18, replace “pump flow test main” with “pump flow test meter”.

For key 19, replace “alterantive” with “alternative”.

3 Addition of new Annex C, “Limits of applicability for water mist systems tested in accordance to EN 14972-2”

Add the following new Annex C:

“