

DOCUMENTATION

RISEFR 040-0205

With reference to Requirement Specifications in CEN/TS 14972:2011 Annex A.3 Fire test protocol for office occupancies of Ordinary Hazard Group 1, RISE Fire Research AS declare, based on test reports, evaluations and installation instructions, that this product meets the requirements of CEN/TS 14972:2011 Annex A.3.

Equipment: Sinorix® High Pressure Water Mist System
Product Siemens A/S
responsible: Middelfartvej 9C, DK-5000, Odense C, Denmark

The documentation is conditional that the product is in accordance with the specifications given in the appendix and that the product is applied and used in accordance with regulations and all important details in this process follow precisely what is described in a Design, Installation, Operation and Maintenance (DIOM) manual. Both the DIOM manual and the RISE Fire Research Documentation shall follow the product or be available for the purchaser, user, inspector and the local authority.

The product shall be labeled with **RISEFR 040-0205**, trade name, product responsible and/or the manufacturers traceability label. Alternatively, this documentation and the DIOM manual shall be attached. The labelling shall have good visibility.

Detailed product design and principle design of installation details are described in "Standard construction details for Sinorix® High Pressure Water Mist System (Sinorix® HPWM), belonging to Documentation RISEFR 040-0205". The version of the construction details filed at RISE Fire Research at any time is a formal part of the approval.

The product must have at least one annual external inspection related to the internal system for control of quality. The inspection is adjusted to the type of product and other existing inspection arrangements. Details are specified in a written agreement with RISE Fire Research.

First issued: **2020-03-23**. A renewal may be issued based on a written application. Termination by the applicant shall be asked for in writing and with 6 months notice. RISE Fire Research may withdraw this documentation when irregularities or misuse happens, and written instructions are not respected.

Issued: 2026-03-03

Valid until: 2030-04-01



Asbjørn Østnor
Discipline Manager Documentation



Erik Westbye Jacobsen
Project Manager Documentation

Appendix 1 to Documentation RISEFR 040-0205 of 2025-01-21

1. Owner of the Documentation

Siemens A/S
Middelfartvej 9C,
DK-5000, Odense C,
DENMARK
www.new.siemens.com

2. Manufacturer

Siemens A/S

3. Product Description

Sinorix® HPWM will consist of a number of high pressure nozzles connected by stainless steel piping to a High-Pressure pump unit. Sinorix® HPWM automatic nozzles use industry-standard fast-response frangible glass bulbs with a response time index (RTI) of less than $24 \text{ (ms)}^{1/2}$ and with the following glass bulb temperature rating:

Table 1: Bulb temperature rating

Maximum ambient temperature	Bulb activation temperature	Bulb colour
27°C	57°C	Orange

4. Fields of Application

Sinorix® HPWM for protection of Ordinary Hazard Group 1 (OH1) Office.

5. Properties

Sinorix® has the following specifications:

- *System type and identification:* Sinorix® High Pressure Water Mist System (HPWM) Application OH1 Office with nozzle I.D.: OF.
- *Occupancies:* Office and school areas.
- *Description of hazards and storage:* Office and school areas, Hazard Group 1 (OH1).

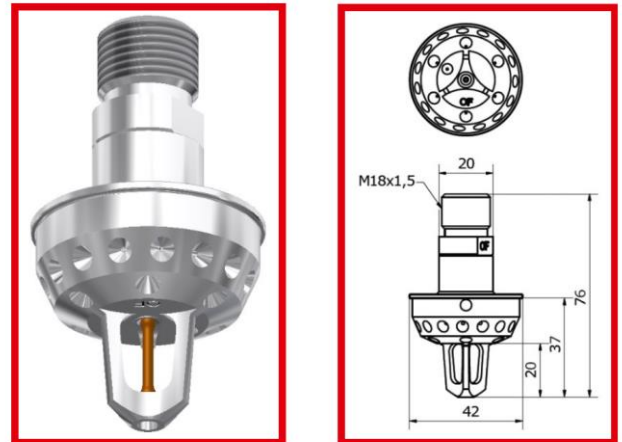


Figure 1: Sinorix® HPWM Nozzle NO-032800-OF-P-6.28-12-057-000000 (OF) OH1.

- *All design parameters:*
 - *Nozzle type and unique identification:* OF (see Figure 1).
 - *Design area of operation:* 72 m^2 .
 - *Number of operating nozzles or area of operation:* Use the spacing parameters, determine the number of nozzles required to cover the risk.
 - *Nozzle design pressure:* 60 bar.
 - *K-Factor:* 6.28
 - *Flow at design pressure:* 48.6 l/min.
 - *Maximum nozzle spacing:* 5.6 m.
 - *Maximum ceiling height:* 4.4 m.
 - *Maximum distance from wall:* 2.8 m.
 - *Requirements concerning obstructions:* See DIOM Manual Section 5.3 Nozzle obstructions.

6. Special Conditions for Use and Installation

Sinorix® shall be installed according to installation details shown in “Standard Construction Details for the product belonging to documentation RISEFR 040-0205”.

The manufacturer shall prepare a relevant detailed manual to provide a specification of the system as listed in paragraph 5 if applicable. This manual shall, in addition, include at least the following:

- Any system constraints crucial to the operation.
- Full functional system description.

- Full installation and commissioning instructions.
- Full operation instructions.
- The maintenance information shall include at least a full maintenance schedule and instructions.
- *Labeling*: For traceability, the product shall be labeled with "OF" as well as the documentation RISEFR 040-0205, and the DIOM Manual shall follow the product.
- Design, Installation, Operation and Maintenance Manual (DIOM), Sinorix® Water Mist Fire Fighting Systems for the protection of OH1 Office, rev. 1, 2026-01-15.
- Requirement specification CEN/TS 14972:2011 Annex A.3.
- Siemens A/S, Data Sheet No. NO-032800-OF-P-6.28-12-057-000000. (OF), 2025-12-03.

7. Basis for the Documentation

This documentation is based on the properties documented in the following reports and drawings:

- Test of SEM-SAFE® High Pressure Water Mist System, VdS Versuchsaufbau für den Anwendungsfall "Büro" and CEN/TS 14972:2008 Annex A.3 Fire test protocol for office occupancies of Ordinary Hazard Group 1, Danish Institute of Fire and Security Technology (DBI) report no. PE10051b, 2011-12-14.
- Statement of increased tolerances for OF nozzle, RISE Fire Research AS, 2019-11-26.

8. Validity

The validity of this appendix is uniquely linked to the first page of the document with the requirements, conditions and expiration date expressed.

9. Technical Management

Project Manager is Erik Westbye Jacobsen and Discipline Manager Documentation is Asbjørn Østnor, RISE Fire Research AS, Trondheim.

Verification

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Document

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Main document

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