

Reliable®

Model N25 ESFR Pendent Sprinkler

175 psi (12 bar) rated

Features

- FM Approved as a quick-response storage sprinkler
- Fusible link operating element

Product Description

The Reliable Model N25 Early Suppression Fast Response (ESFR) Sprinkler is intended for use against severe fire challenges. The sprinkler is designed to respond quickly to a growing fire and deliver a heavy discharge of water to suppress the fire. The Model N25 is FM Approved as a quick response storage sprinkler.

The Model N25 ESFR Sprinkler utilizes a levered fusible alloy solder link in either a 165°F (74°C) or 212°F (100°C) temperature rating. The sprinkler has a nominal K Factor of 25.2 (metric 360), and is available with 1" NPT or ISO 7-1R1 threads.

The small deflector and frame provide a broad, symmetrical, hemispherical pattern capable of suppressing fires between sprinklers in high-piled storage areas. At the same time, a high momentum central core discharge penetrates and suppresses fires occurring directly beneath the sprinkler in lower height storage areas.

The N25 ESFR sprinkler is less susceptible to damage due to the smaller deflector and frame design, and has passed rough use and abuse testing required for approval without the need for plastic protectors.

Important! Reliable fire sprinklers must be handled, stored, and installed in accordance with the guidelines in Caution Sheet 310 and this bulletin. Failure to follow these instructions may result in unintended operation or nonoperation of the fire protection system.



Model N25 ESFR Sprinkler

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Table A

Model	Nominal K-factor gpm/psi ^{1/2} (L/min/bar ^{1/2})	Approvals	Sprinkler Identificaiton Number (SIN)
N25	25.2 (360)	FM, CNBOP-PIB, CE	RA0912

Technical Specifications

Style: Pendent
Connection: 1" NPT or ISO7 R-1 threads
Nominal K-Factor: 25.2 (360)
Max. Working Pressure: 175 psi (12 bar)

Material Specifications

Thermal Sensor: Beryllium Nickel Solder Link
Sprinkler Frame: Brass Casting
Button: Copper Alloy
Sealing Assembly: Nickel with PTFE
Load Screw: Stainless Steel
Deflector: Bronze
Levers: Stainless Steel
Ejection Spring: Stainless Steel

Sprinkler Finishes

Standard (Brass Only)

Sensitivity

Quick-Response

Temperature Ratings

Ordinary: 165°F (74°C)
 Intermediate: 212°F (100°C)

Guards and Shields (for threaded sprinklers only)

K25 Guard (Intermediate level ONLY)
 S-5 Water Shield (Intermediate level ONLY)

Sprinkler Wrench

Model W5

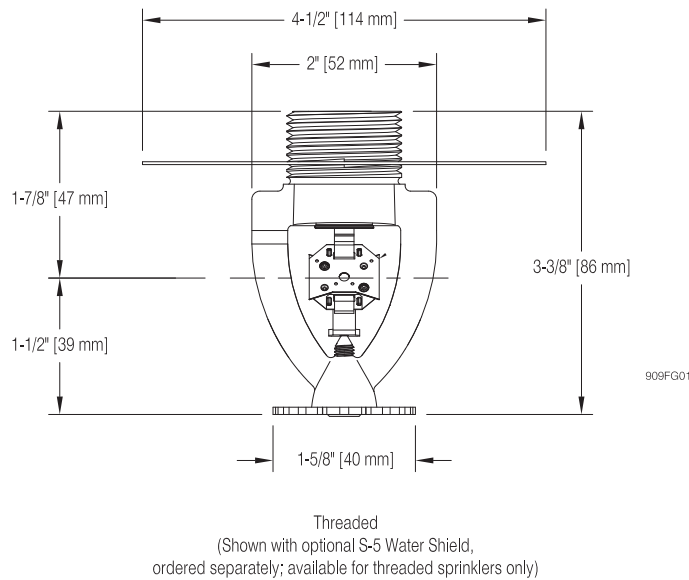
Listings and Approvals

FM Approved
 CNBOP-PIB
 CE (2809-CPR-F0053)



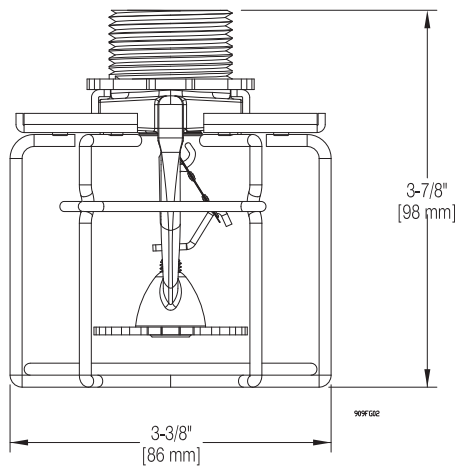
Model N25 Sprinkler Components and Dimensions

Figure 1



Model N25 ESFR Sprinkler with Model 25 Guard (ONLY for intermediate level use)

Figure 2



Model N25 ESFR Commodity Selection and Design Criteria Overview

Table B

Storage Type	NFPA	FM GLOBAL
Sprinkler Type	ESFR	Storage
Response Type	ESFR	QR
System Type	Wet	Wet
Temperature Rating °F (°C)	165, 212 (74, 100)	165, 212 (74, 100)
Roof Construction	See NFPA 13	See FM Global 2-0
Ceiling Slope	See NFPA 13	See FM Global 2-0
Maximum Coverage Area	See NFPA 13	See FM Global 2-0
Minimum Coverage Area	See NFPA 13	See FM Global 2-0
Maximum Spacing	See NFPA 13	See FM Global 2-0
Minimum Spacing	See NFPA 13	See FM Global 2-0
Minimum Clearance to Commodity	See NFPA 13	See FM Global 2-0
Sprinkler Distance to Ceiling	See NFPA 13	See FM Global 2-0
Open Frame, Single, Double, Multiple Row, or Portable Rack Storage of Class I - IV Commodity and Group A Plastic	See NFPA 13	See FM 2-0 and 8-9
Solid Pile or Palletized Storage of Class I - IV Commodity and Group A Plastic	See NFPA 13	See FM 2-0 and 8-9
Idle Pallet Storage	See NFPA 13	See FM 2-0, 8-9 and 8-24
Rubber Tire Storage	See NFPA 13	See FM 2-0 and 8-3
Rolled Paper Storage	See NFPA 13	See FM 8-21
Flammable Liquid Storage	See NFPA 30	See FM 7-29
Aerosol Storage	See NFPA 30B	See FM 7-31
Auto Components in Portable Racks	See NFPA 13	See FM 2-0 and 8-9

Installation

Model N25 sprinklers are intended for installation in accordance with NFPA 13 and FM Loss Prevention Data Sheets 2-0 and 8-9, as well as the requirements of any Authorities Having Jurisdiction. See Table B for information on NFPA and FM Global design criteria for the Model N25 sprinklers.

For threaded sprinklers only, use the Model W5 sprinkler wrench for installation (Figure 3). Any other type of wrench may damage the sprinkler. A grooved wrench boss is provided on the sprinkler to limit the potential for the wrench to slip during installation.

Model N25 sprinklers should be tightened between 14 - 40 lbs-ft (19 - 54 N-m) torque. Do not tighten sprinklers over the maximum recommended torque. Exceeding the maximum recommended torque may cause leakage or impairment of the sprinklers.

Caution: When handling sprinklers, hold sprinklers only by the frame arms and do not apply any force on the link assembly. Damaged sprinklers must be replaced immediately.

Maintenance

Reliable Model N25 sprinklers should be inspected and the sprinkler system maintained in accordance with NFPA 25, as well as the requirements of any Authorities Having Jurisdiction.

Prior to installation, sprinklers should remain in the original cartons and packaging until used. This will minimize the potential for damage to sprinklers that could cause improper operation or non-operation.

Do not clean sprinklers with soap and water, ammonia liquid or any other cleaning fluids. Remove dust by gentle vacuuming without touching the sprinkler.

Replace any sprinkler which has been painted (other than factory applied). A stock of spare sprinklers should be maintained to allow quick replacement of damaged or operated sprinklers.

Failure to properly maintain sprinklers may result in inadvertent operation or non-operation during a fire event.

Model W5 Sprinkler Wrench

Figure 3



Guarantee

For the Reliable Automatic Sprinkler Co., Inc. guarantee, terms, and conditions, visit www.reliablesprinkler.com.

Ordering Information

Specify:

- Sprinkler: [N25]
- Temperature Rating: [165°F (74°C)] [212°F (100°C)]
- End Connection: [1" NPT] [ISO7 R-1]