



# K-22 Magnum Model H22 (SIN R6611) Early Suppression Fast Response (ESFR) Sprinkler

## Performance Characteristics: Single Sprinkler Minimum Pressure and Flow

### Features

1. Eliminates in-rack sprinklers for 45' high buildings.
2. Lower flows offer opportunities to reduce:
  - Interior Piping
  - Fire Pump Sizes
  - Underground Pipe
  - Tank Sizes
3. Maximum deflector distance from ceiling (roof) is 18" (457mm).
4. Available in 155°F and 200°F.



Model H22 Sprinkler

Bldg. Height	UL		FM , VdS & LPCB	
	Pressure	Flow	Pressure	Flow
* 45 ft. (13.7m)	40 psi (2,8 bar)	142 gpm (537 L/min)	50 psi (3,4 bar)	158 gpm (597 L/min)
40 ft. (12.2 m)	40 psi (2,8 bar)	142 gpm (537 L/min)	45 psi (3,1 bar)	150 gpm (567 L/min)
35 ft. (10.7m)	35 psi (2,4 bar)	133 gpm (503 L/min)	35 psi (2,4 bar)	133 gpm (503 L/min)
30 ft. (9.1 m)	25 psi (1,7 bar)	112 gpm (423 L/min)	25 psi (1,7 bar)	112 gpm (423 L/min)

\* with up to 40 ft. (12.2 m) storage (In-rack sprinklers are not required)

## Requirements

### Product Description

The Model H22 Early Suppression Fast Response (ESFR) Sprinkler is intended for use against severe fire challenges. This sprinkler is designed to respond quickly to growing fires with a high volume of water discharge to "suppress" rather than "control" fires at lower pressures and without in-rack sprinklers for 35' (10.7m) to 40' (12.2m) storage as is required with a K14 or K17 ESFR.

The H22 Sprinkler utilizes a 2.5mm glass bulb in either 155°F or 200°F temperature ratings. The sprinkler has a Nominal K Factor of 22.4 (320 metric) and will deliver approximately 112 gpm (424 L/min) of water at 25 psi (1,7 bar).

The deflector and frame provide a broad, very symmetrical, hemispherical pattern capable of suppressing fires between sprinklers in high storage height areas and at the same time maintaining good central core distribution to penetrate and suppress fires occurring directly beneath the sprinkler.

### Application and Installation

The Model H22 ESFR sprinkler is intended for installation in accordance with NFPA 13, Factory Mutual (FM) Loss Prevention Data Sheet 2-2, and Loss Prevention Certification Board (LPCB) Technical Bulletin TB209:2005:1, as well as the Authority Having Jurisdiction.

This sprinkler is intended for protection of Class I to IV Commodities and Group A or B plastics, which includes cartoned unexpanded plastics. The storage can be palletized and solid piled, open frame single row or multiple row and portable rack storage.

### Approval Organizations

1. Listed by Underwriters Laboratories Inc. and UL certified for Canada (cULus). Listed for installation in accordance with NFPA standards for storage heights to 40ft. (12.2m) in buildings to 45ft. (13.7m) high.
2. Factory Mutual Research Corp. (FM)  
The H22 Sprinkler is for use in buildings with ceilings up to 45ft. (13.7m) high with storage heights to 40 ft. (12.2m) when installed in accordance with FM Loss Prevention Data Sheet 2-2 or other FM Installation Standards.
3. NYC MEA 258-93-E
4. VdS Schadenverhütung (VdS)
5. Loss Prevention Certification Board (LPCB)

## K-22, Model H22 Temperature Ratings and Approvals

Classification	Sprinkler Temperature Rating		Bulb Color	Frame Color	Maximum Ambient Temperature		Approvals	Sprinkler Identification No. (SIN)
	°F	°C			°F	°C		
Ordinary	155	68	Red	Uncolored	100	38	cULus, FM, NYC VdS, LPCB	R6611
Intermediate	200	93	Green	White	150	66		R6611

## Installation Data

Sprinkler Type	Nominal Orifice	Thread Size	Nominal K Factor		Maximum Working Pressure	Finish
			US	Metric		
Pendent Only	0.87" (22.1mm)	1" NPT R1	22.4	320	175 psi (12,1 bar)	Bronze



Use only the Model H1 sprinkler wrench for removal and installation. Any other type of wrench may damage the sprinkler.

## Maintenance

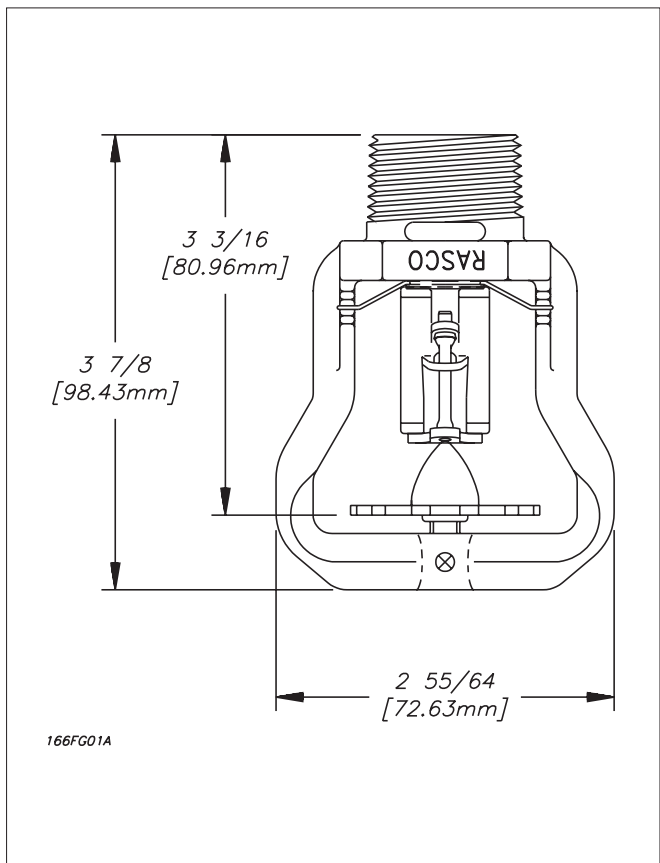
The Model H22 Sprinkler should be inspected quarterly and the sprinkler system maintained in accordance with NFPA 25. Do not clean sprinklers with soap and water, ammonia or any other cleaning fluids. Remove dust by using a soft brush or gentle vacuuming. Remove any sprinkler that has been painted (other than factory applied) or damaged in any way. A stock of spare sprinklers should be maintained to allow quick replacement of damaged or operated sprinklers. Prior to installation, sprinklers should be maintained in the original cartons and packaging until used. This will minimize the potential for damage to sprinklers that would cause improper operation or non-operation.

## Ordering Information

Specify:

1. Temperature Rating
2. Thread type 1" NPT or ISO 7/1-R1

**Patents:** This product is covered by one or more of the following patents; US 6,450,265; US 6,502,643; US 6,868,917; AU 722593, GB 2336777



The equipment presented in this bulletin is to be installed in accordance with the latest pertinent Standards of the National Fire Protection Association, Factory Mutual Research Corporation, or other similar organizations and also with the provisions of governmental codes or ordinances whenever applicable.

Products manufactured and distributed by Reliable have been protecting life and property for over 80 years, and are installed and serviced by the most highly qualified and reputable sprinkler contractors located throughout the United States, Canada and foreign countries.

Manufactured by



**The Reliable Automatic Sprinkler Co., Inc.**

(800) 431-1588  
(800) 848-6051  
(914) 829-2042  
www.reliablesprinkler.com

Sales Offices  
Sales Fax  
Corporate Offices  
Internet Address



Revision lines indicate updated or new data.

EG Printed in USA 1/06 P/N 9999970170