



# Model HL-14 (SIN RA0512) Early Suppression Fast Response Sprinkler

Bulletin 005 Rev.B

## Product Description

The Reliable Model HL-14 Early Suppression Fast Response (ESFR) Sprinkler is intended for use against severe fire challenges. This sprinkler is designed to respond quickly to growing fires and will deliver a heavy water discharge to “suppress” rather than “control” fires.

**Note:** The Model HL-14 ESFR sprinkler utilizes a levered fusible alloy solder link in either a 165°F (74°C) or a 212°F (100°C) rating.

The sprinkler has a Nominal K Factor of 14.0 (metric 200) and will deliver approximately 100 gpm (397 L/min) of water at 50 psi (3,4 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 retaining a high momentum central core to penetrate and suppress fires occurring directly beneath the sprinkler in low storage height areas.



Model HL-14 ESFR Sprinkler

## Application and Installation

The Model HL-14 ESFR sprinkler is intended for installation in accordance with NFPA 13 (2002) and FM Loss Prevention Data Sheet 2-2 as well as the Authority Having Jurisdiction.

This sprinkler is intended for protection of palletized and solid piled and open frame single row, double row, multiple row and portable rack storage of most common materials including unexpanded and cartoned expanded plastics.

## Approvals

The Model HL-14 ESFR Sprinkler is FM approved [165°F (74°C) and 212°F (100°C) temperature ratings only] for use in buildings to 45 ft. (13.7m) high with storage heights to 40 ft. (12.1m) when installed in accordance with Factory Mutual Loss Prevention Data Sheet 2-2 or other FM Installation Standards.

The Model HL-14 ESFR Sprinkler is UL Listed and Certified for Canada (all ratings) for installation in accordance with NFPA Standards for storage heights to 35 ft. (10.7m) in buildings to 40 ft. (12.1m) high.

The Model HL-14 ESFR Sprinkler [165°F (74°C) and 212°F (100°C) temperature ratings only] is also approved by both the Verband der Schadenversicherer e.V. (VdS Germany) and the Loss Prevention Council (LPC, UK). VdS Germany requires review prior to each installation.

## Listings and Approvals

1. Listed by Underwriters Laboratories Inc. and UL certified for Canada (cULus)
2. Certified by FM Approvals
3. NYC MEA 258-93-E
4. Verband der Schadenversicherer e.V. (VdS Germany)
5. Loss Prevention Council (LPC, UK)

## Model HL-14 Temperature Ratings and Approvals

Classification	Sprinkler Temperature		Link Color	Frame Color	Maximum Ambient Temperature		Approvals	Sprinkler Identification Number (SIN)
	°F	°C			°F	°C		
Ordinary Intermediate	165 212	74 100	Black Gray	Uncolored White	100 150	38 66	UL, FM, ULC, NYC, VdS, LPCB UL, FM, ULC, NYC, VdS, LPCB	RA0512

## Installation Data

Sprinkler Type	Thread Size	“K” Factor		Maximum Working Pressure	Finish
		US	Metric		
Pendent Only	¾" (R¾)	14.0	200	175 psi (12,1 bar)	Bronze

## Maintenance

The Model HL-14 ESFR Sprinkler should be inspected quarterly and the sprinkler system maintained in accordance with NFPA 25. Do not clean sprinkler with soap and water, ammonia or any other cleaning fluid. 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, to minimize the potential for damage to sprinklers that would cause improper operation or non-operation.

Once operated, automatic sprinklers cannot be reassembled and reused. New sprinklers of the same size, type and temperature rating must be installed. A cabinet of replacement sprinklers should be provided for this purpose.

## Model HL-14 ESFR Sprinkler Specification

Sprinklers shall be Early Suppression Fast Response (ESFR) pendent suppression mode sprinklers specifically tested and [UL Listed] [FM Approved] for commodity storage applications. Sprinkler frame and deflector to be of bronze construction with deflector located inside the frame arms. Fusible link assembly shall utilize the strut and lever principle of operation with approved fast response black-painted or gray-painted beryllium-nickel thermal element. Water seal shall consist of a Teflon-coated Bellville spring washer and brass cap assembly containing no plastic parts. ESFR sprinklers shall have a nominal K-factor of 14.0 with ¾" NPT threaded end connections. Sprinkler temperature rating shall be [Ordinary 165°F (74°C)] [Intermediate 212°F (100°C)]. ESFR pendent sprinklers shall be Reliable Model HL-14 (Bulletin 005).

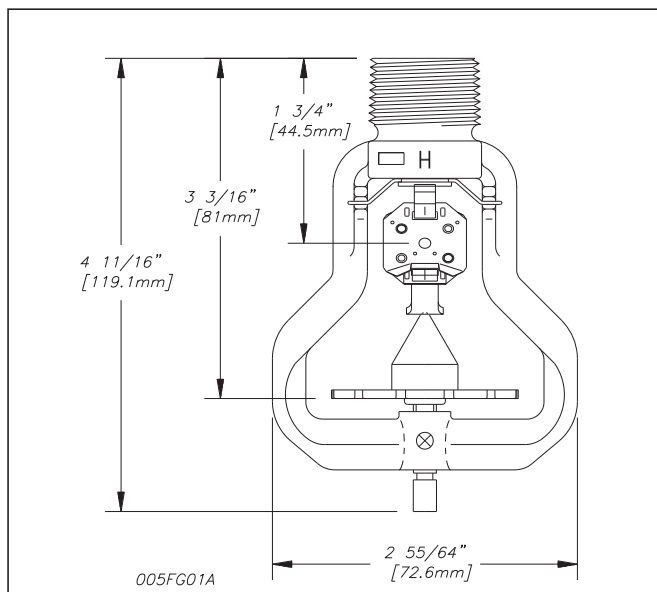
## Model H Sprinkler Wrench



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

## Ordering Information Specify:

1. Temperature rating
2. Thread type ¾" NPT or ISO 7-R¾



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



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