

Reliable®

Model F1 Series Standard Response Standard Spray

Model F1 56 Sprinkler Types

Standard Upright
Standard Pendent
Conventional
Vertical Sidewall
Horizontal Sidewall

Model F1 56 Recessed Sprinkler Types

Pendent/F1/F2/FP
Horizontal Sidewall

Approval Organizations

1. Underwriters Laboratories Inc. and certified for Canada (cULus)
2. Factory Mutual Approvals (FM)
 - Light Hazard - No Limitations
 - Ordinary Hazard - Group 1 & 2, wet systems only.
3. Loss Prevention Council (LPCB, UK)
4. VdS Schadenverhütung GmbH

UL Listing Category

Sprinklers, Automatic & Open (VNIV)

Product Description

The F1 Series Glass Bulb Sprinkler combines the durability of a standard sprinkler with the attractive low profile of a decorative sprinkler. Whether installed on exposed piping or in an office ceiling, it is functional and attractive.

Beautifully versatile is the description for the Reliable Model F1 Series Recessed glass bulb sprinkler. Recessing the F1 Series enhances its already low profile decorative appearance, and facilitates a rapid and perfect installation.

Model F1 Series Recessed escutcheon is highly adjustable. The two piece construction makes field installation a very easy and rapid task. This also allows ceiling panels to later be removed without shutting down the fire protection system, thus facilitating maintenance of above ceiling services.

The F1 Series Automatic Sprinkler utilizes a 5.0 mm frangible glass bulb. The glass bulb consists of an accurately controlled amount of special fluid hermetically sealed inside of a precisely manufactured glass capsule.

At normal temperatures, the glass bulb contains the fluid in both the liquid phase and in the vapor phase. The vapor phase can be seen as a small bubble. As heat is applied, the liquid expands forcing the bubble smaller



Upright



Pendent



Vertical Sidewall



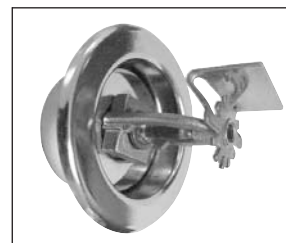
Conventional



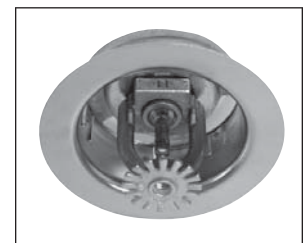
Horizontal Sidewall



Recessed
Pendent/F1/F2



Recessed
Horizontal Sidewall



Recessed
Pendent/FP

and smaller as the liquid pressure increases. Continued heating forces the liquid to push out against the bulb, causing the glass to shatter, opening the waterway and allowing the deflector to distribute the discharging water.

The F1 Series Sprinkler temperature rating is identified by the color of the glass bulb capsule as well as frame color where applicable

Model F1 56 Upright, Pendent & Conventional Sprinklers

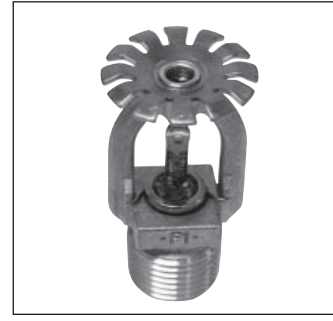
Installation Wrench: Model D Sprinkler Wrench



Upright



Pendent



Conventional

Installation Data:

Nominal Orifice	Thread Size	Nominal K Factor		Sprinkler Height	Approval Organization	Sprinkler Identification Number (SIN)	
		US	Metric			Upright	Pendent
Standard-Upright (SSU) and pendent Deflectors Marked to Indicate Position							
1/2" (15mm) ⁽¹⁾	1/2" NPT(R1/2)	5.6	80	2.25" (57mm)	1, 2, 3, 4	RA1325 ⁽²⁾	RA1314 ⁽²⁾⁽³⁾
Conventional-Install in Upright or Pendent Position							
15mm ⁽¹⁾	1/2" NPT(R1/2)	5.6	80	57mm	3, 4	RA1375	

⁽¹⁾ Refer to Bulletin 024 for Special Response Sprinklers (F1S5-56)

⁽²⁾ cULus corrosion resistant (Polyester coated) sprinkler.

⁽³⁾ Polyester coated FM Approved sprinkler.

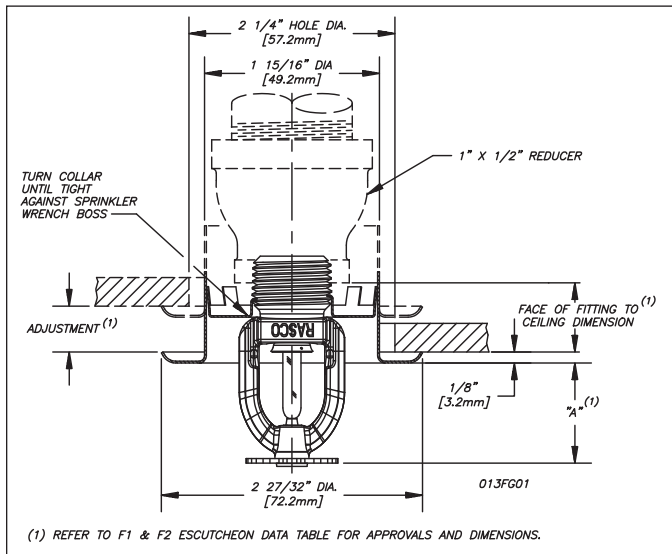
Model F1 56 Recessed Pendent Sprinkler⁽¹⁾

Installation Wrench: Model GFR2 Sprinkler Wrench

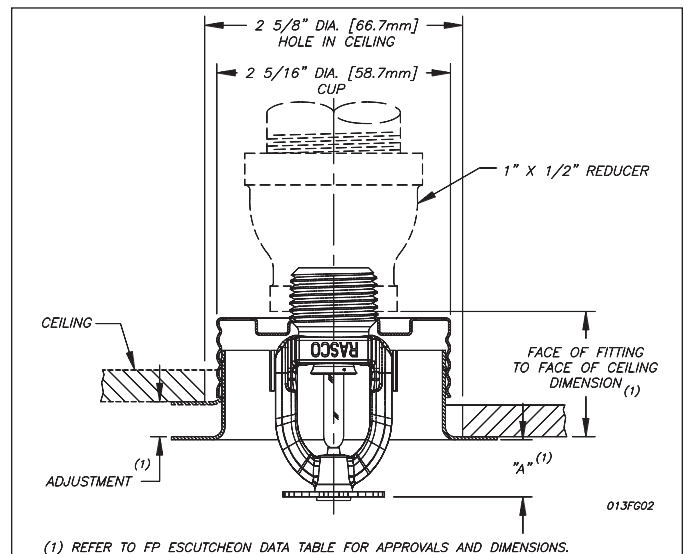
Installation Data:

Nominal Orifice	Thread Size	K Factor		Sprinkler Height	Sprinkler Identification Number (SIN)
		US	Metric		
1/2" (15mm)	1/2" NPT(R1/2)	5.6	80	2.25" (57mm)	RA1314

⁽¹⁾ Refer to escutcheon data table for approvals & dimensions



Model F1 56/F1 or F2



Model F1 56/FP

Model F1 Vertical Sidewall Sprinkler

Installation Wrench: Model D Sprinkler Wrench

Installation Position: Upright or Pendent

Approval Type: Light Hazard Occupancy

U.S. Patent No. 6,374,920

Sprinkler Type	Deflector to Ceiling Distance (Min. - Max.)
Upright	4" (102mm) - 12" (305mm)
Pendent	4" (102mm) - 12" (305mm)



Vertical Sidewall

Installation Data:

Nominal Orifice	Thread Size	Nominal K Factor		Sprinkler Height	Approval (1) Organizations	Sprinkler Identification Numbers (SIN)
		US	Metric			
1/2" (15mm)	1/2" NPT (R1/2)	5.6	8.0	2.25" (57mm)	1,2,3	RA1385

(1) LPC Approval is pendent only, 57°C through 141°C ratings.

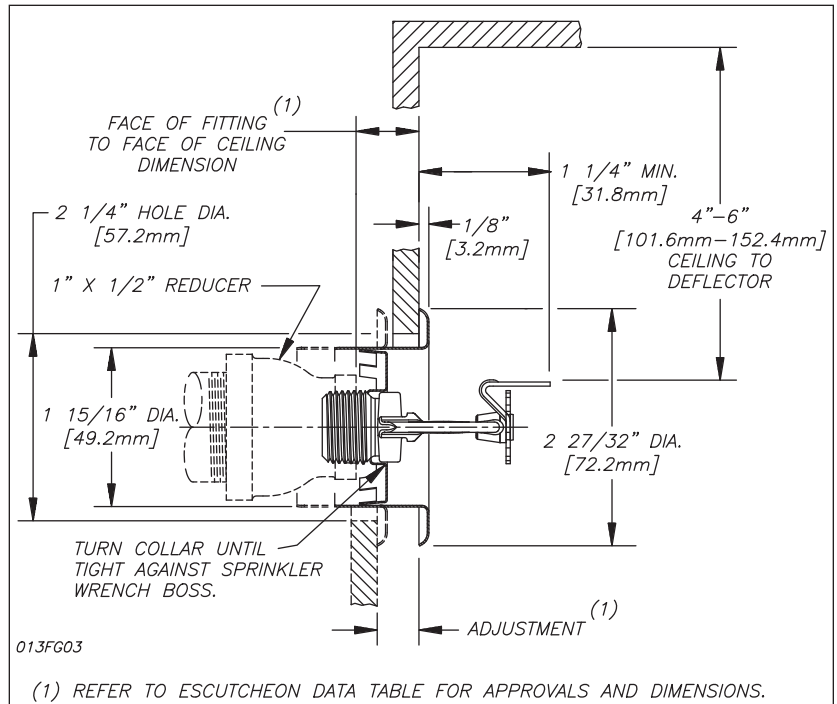
Model F1 Horizontal Sidewall Sprinkler

Deflector: HSW

Installation Wrench: Model D Sprinkler Wrench



Horizontal Sidewall



Installation Data: Horizontal Sidewall

Nominal Orifice	Thread Size	Nominal K Factor		Sprinkler Height	Approval Organizations		Sprinkler Identification Numbers (SIN)
		US	Metric		Light Hazard	Ordinary Hazard	
1/2" (15mm)	1/2" NPT (R1/2)	5.6	80	2.63" (67mm)	1,2	1	RA1335

Model F1 56 & F1 56 Recessed Sprinklers

Application

Model F1 56 and F1 56 Recessed sprinklers are used in fixed fire protection systems: Wet, Dry, Deluge or Preaction. Care must be exercised that the orifice size, temperature rating, deflector style and sprinkler type are in accordance with the latest published standards of the National Fire Protection Association or the approving Authority Having Jurisdiction Installation.

Installation

Model F1 Series sprinklers are standard response sprinklers intended for installation as specified in NFPA 13. They must also be installed with the Model D Sprinkler Wrench specifically designed by Reliable for use with these sprinklers.

The Model F1 56 Recessed Sprinklers are to be installed with a maximum recess of 3/4 inch (19mm). The Model F1, F2, and FP Escutcheon illustrated are the only recessed escutcheon to be used with the Model F1 56 Pendant Sprinklers. The use of any other recessed escutcheon will void all approvals and negate all warranties. When installing Model F1 56 Recessed Pendant use the Model GFR2 Sprinkler Wrench. Any other type of wrench may damage these sprinklers.

Note: A leak tight 1/2" NPT (R1/2) sprinkler joint can be obtained with a torque of 8-18 ft-lbs (10,8 - 24,4 N-m). Do not tighten sprinklers over maximum recommended torque. It may cause leakage or impairment of the sprinklers.

Glass bulb sprinklers have orange covers to protect the bulb during the installation process. REMOVE THIS PROTECTION ONLY AFTER THE SYSTEM HAS BEEN HYDROSTATICALLY TESTED AND, WHEN APPLICABLE, THE ESCUTCHEONS HAVE BEEN INSTALLED. RASCO wrenches are designed to install sprinklers when covers are in place.

Ordering Information

Specify:

1. Sprinkler Model
2. Sprinkler Type
3. Orifice Size
4. Deflector Type
5. Temperature Rating:
 - Specify when ordering
 - Model F1 56 Pendant Sprinkler
6. Sprinkler Finish
7. Escutcheon Finish (where applicable)

Note: When Model F1 Recessed Sprinklers are ordered, the sprinklers and escutcheons are packaged separately.

Escutcheon Data ⁽¹⁾

Escutcheon Model	Approvals	Adjustment	"A" Dimension	Face of Fitting to Ceiling or Wall Dimension
F1	1,3,4	Max Recessed Min Recessed	1 1/2" (38.1mm) 3/4" (19.1mm)	3/16" - 15/16" (5m - 24mm)
F2	1,2,3,4	Max Recessed Min Recessed	1 1/2" (38.1mm) 1" (25mm)	3/16" - 1 1/16" (5m - 17mm)
FP Push-on/ Thread-off	1,4	Max Recessed Min Recessed	7/16" (11mm) 15/16" (24mm)	1 1/2" (38.1mm) 1" (25mm)

⁽¹⁾ SIN: RA1335 - cULus and FM permits use with F1 or F2 escutcheons for light hazard only.

Maintenance

The Models F1 56 and F1 56 Recessed Sprinklers 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 fluid. Remove any sprinkler which 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.

Temperature Ratings

Classification	Sprinkler Temperature		Max. Ambient Temp.	Bulb Color
	°C	°F		
Ordinary	57	135	100°F (38°C)	Orange
Ordinary	68	155	100°F (38°C)	Red
Intermediate	79	175	150°F (66°C)	Yellow
Intermediate	93	200	150°F (66°C)	Green
High ⁽¹⁾	141	286	225°F (107°C)	Blue
Extra High ⁽¹⁾	182	360	300°F (149°C)	Mauve

⁽¹⁾ Not available for recessed Sprinklers.

Finish⁽¹⁾

Standard Finishes	
Sprinkler	Escutcheon
Bronze	Brass
Chrome	Chrome
White Polyester Coated ⁽⁶⁾⁽⁷⁾	White Painted
Special Application Finishes	
Sprinkler	Escutcheon
Bright Brass ⁽²⁾	Bright Brass
Black Plated	Black Plated
Black Paint ⁽³⁾	Black Paint
Off White ⁽³⁾	Off White
Satin Chrome	Satin Chrome
Lead Plated ⁽³⁾⁽⁴⁾	
Wax Coated ⁽³⁾⁽⁴⁾⁽⁵⁾	
Wax Over Lead ⁽³⁾⁽⁴⁾⁽⁵⁾	

⁽¹⁾ Other colors and finishes are available on special order. Consult factory for details.

⁽²⁾ 200°F (93°C) maximum.

⁽³⁾ UL and ULC listed only.

⁽⁴⁾ 155°F to 200°F (68°C to 93°C) ratings only.

⁽⁵⁾ 286°F (141°C) sprinklers may be coated for ambient conditions not exceeding 150°F (66°C).

⁽⁶⁾ cULus listed "corrosion resistant" applies to SIN Number RA1325 (Upright) and RA1314 (Pendant).

⁽⁷⁾ FM Approved finish as "Polyester Coated" applies only to SIN number RA1314 (Pendant)

The equipment presented in this bulletin is to be installed in accordance with the latest published 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 90 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.

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