

Reliable®

Model F1S5 Series Special Response Standard Spray

Model F1S5-56 Sprinkler

Standard Upright (SU)
Standard Pendent (SP)
Conventional (C u/p)

Model F1S5-40 Sprinkler

Standard Pendent (SP)

Model F1S5 LO Large Orifice Sprinkler

Standard Upright (SU)
Standard Pendent (SP)
Conventional (C u/p)

Model F1S5 LO Large Orifice Sprinkler with 1/2" Connection Threads

Standard Upright (SU)
Standard Pendent (SP)

Model F1S5-56 Recessed Sprinkler

Standard Pendent
w/F1, F2 and FP Recessed Escutcheon

Model F1S5-40 Recessed Sprinkler

Standard Pendent
w/F1, F2 and FP Recessed Escutcheon

Model F1S5 LO Large Orifice Recessed Sprinkler with 1/2" Connection Threads

Standard Pendent
w/F1, F2 and FP Recessed Escutcheon

Approvals

VdS Schadenverhütung GmbH

- SP K57 - Certificate Gxxxx, EC Certificate 0786-CPR-xxxx
- SP K80 - Certificate G4080043, EC Certificate 0786-CPD-40238
- SU K80 - Certificate G4990035, EC Certificate 0786-CPD-40143
- C u/p K80 - Certificate G4050047, EC Certificate 0786-CPD-40147
- Recessed SP - Certificate G4080045, EC Certificate 0786-CPD-40240
- SP K115 - Certificate G411005, EC Certificate 0786-CPD-40280
- SU K115 - Certificate G411006, EC Certificate 0786-CPD-40281
- SP K115 - Certificate G4990038, EC Certificate 0786-CPD-40146
- SU K115 - Certificate G4990037, EC Certificate 0786-CPD-40145
- C u/p K115 - Certificate G4050048, EC Certificate 0786-CPD-40148

Product Description

The F1S5 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 F1S5 Series Recessed glass bulb sprinkler. Recessing the F1S5 Series enhances its already low profile decorative appearance, and facilitates a rapid and perfect installation.



F1S5 Upright



F1S5 LO Upright



F1S5 Pendent



F1S5 LO Pendent



F1S5 Conventional



Recessed
Pendent/F1/F2



Recessed
Pendent/FP

Model F1S5 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 F1S5 Series Automatic Sprinkler utilizes a special response 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. This glass bulb is specially constructed to provide fast thermal response.

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 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.

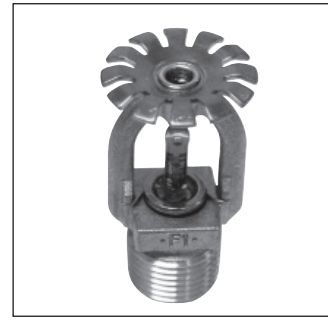
The F1S5 Series Sprinkler temperature rating is identified by the color of the glass bulb capsule as well as frame color where applicable.



Upright



Pendent



Conventional

Model F1S5-56 Upright, Pendent & Conventional Sprinklers



F1S5 LO Upright



F1S5 LO Pendent



F1S5 LO Conventional

Model F1S5 LO Upright, Pendent & Conventional Sprinklers

Installation Wrench: Model D Sprinkler Wrench

Installation Data:

Nominal Orifice	Thread Size	Nominal K Factor		Sprinkler Height	Sprinkler Identification		RTI (fts ^{1/2}) [ms ^{1/2}]	
		US	Metric		Upright	Pendent		
Standard-Upright (SU) and pendent Deflectors Marked to Indicate Position								
1/2" (15mm) ⁽¹⁾	1/2" NPT(R1/2)	5.6	80	2.25" (57mm)	SU	SP	(90-130) [50-70]	
1/2" (15mm)	R1/2" BSPT	4.0	57	2.25" (57mm)	--	SP		
Conventional-Install in Upright or Pendent Position								
15mm ⁽¹⁾	1/2" NPT(R1/2)	5.6	80	57mm	C u/p			
Model F1S5 Large Orifice Upright & Pendent Sprinklers								
20mm	R1/2 & R3/4	8.0	115	58mm	SU	SP	(90-150) [50-80]	
Conventional-Install in Upright or Pendent Position								
20mm	R3/4	8.0	115	58mm	C u/p			

Model F1S5-40 Recessed Pendent Sprinkler
Model F1S5-56 Recessed Pendent Sprinkler
Model F1S5 Large Orifice Recessed Pendent Sprinkler

Installation Wrench: Model GFR2 Sprinkler Wrench

Installation Data:

Nominal Orifice	Thread Size	K Factor		Sprinkler Height	Sprinkler Identification	⁽¹⁾ RTI _c (fts ^{1/2}) [ms ^{1/2}]
		US	Metric			
½" (15mm)	½" NPT(R½)	5.6	80	2.25" (57mm)	SP ⁽²⁾	(110-150) [60-80]
Model F1S5 Large Orifice Recessed Pendent Sprinklers⁽³⁾						(90-150) [50-80]
20mm	R½ & R¾	8.0	115	58mm	SP	

⁽¹⁾ c = 1.09 (ft/s)^{1/2} [0.60 (m/s)^{1/2}]

⁽²⁾ VdS Approval for 155°F (68°C), 175°F (79°C), and 200°F (93°C) only.

⁽³⁾ Currently not VdS Approved.

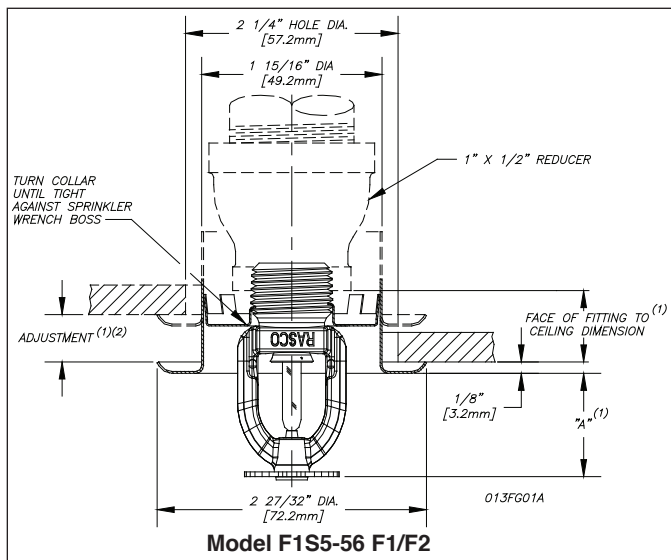


Fig. 1

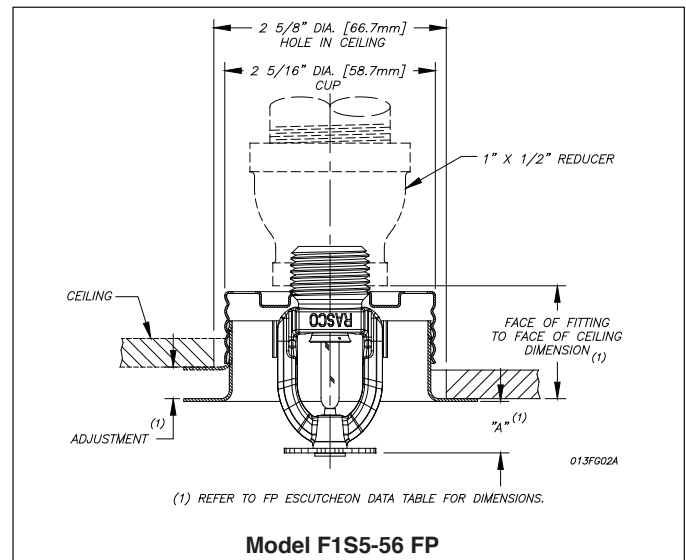


Fig. 2

Model F1S5-40, F1S5-56, F1S5 LO & F1S5-56, F1S5 LO Recessed Sprinklers Application

Model F1S5-40, F1S5-56, F1S5 LO and F1S5-56, F1S5 LO 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 F1S5 Series sprinklers are special 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 F1S5-40, F1S5-56 and F1S5 LO Recessed Sprinklers are to be installed with a maximum recess of ¾ inch (19mm). The Model F1, F2 & FP Escutcheons illustrated are the only recessed escutcheon to be used with the Model F1S5-56 and F1S5 LO Pendent Sprinklers. The use of any other recessed escutcheon will void all approvals and negate all warranties. When installing Model F1S5-40, F1S5-56 and F1S5 LO Recessed Pendent use the Model GFR2 Sprinkler Wrench. Any other type of wrench may damage these sprinklers.

Note: A leak tight 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 of Sprinkler
6. Sprinkler Finish
7. Escutcheon Finish (where applicable)

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

Escutcheon Data

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

Maintenance

The Models F1S5-40, F1S5-56, F1S5 LO, F1S5-56 Recessed & F1S5 LO 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⁽¹⁾

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	141	286	225°F (107°C)	Blue

⁽¹⁾ VdS Approval for Recessed Pendent Sprinkler 155°F (68°C), 175°F (79°C), and 200°F (93°C) only.

Finish⁽¹⁾

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

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

⁽²⁾ 200°F (93°C) maximum.

⁽³⁾ 155°F to 200°F (68°C to 93°C) ratings only.

⁽⁴⁾ 286°F (141°C) sprinklers may be coated for ambient conditions not exceeding 150°F (66°C).

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

Reliable[®]

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EG. Printed in U.S.A. 05/15 P/N 9999970400