

Reliable®

Model F1FR-SS Series Stainless Steel Sprinklers

Standard spray, quick-response

cULus Listed, FM Approved
VdS Approved, CE Listed

Features

- Type 316 stainless steel alloy frame, deflector, and cap
- cULus Listed and FM Approved as Corrosion Resistant sprinklers
- Available as Upright, Pendent, or Recessed Pendent sprinklers
- Available with polyester finishes.

Product Description

Model F1FR-SS series sprinklers are standard spray, quick-response sprinklers intended for installation in accordance with NFPA 13. The sprinklers are cULus Listed and FM Approved as Corrosion Resistant sprinklers and feature a frame, deflector, and cap made of Type 316 stainless steel alloy.

Model F1FR-SS series sprinklers include upright and pendent sprinklers. Model F1FR-SS series pendent sprinklers are cULus Listed for installation with Reliable Model F1 and FP recessed escutcheons. The Reliable Model F2 escutcheon is cULus Listed and FM Approved for use with Model F1FR-SS series sprinklers. Reliable Model B one-piece escutcheons are also available. All escutcheons listed in this bulletin are manufactured Type 316 stainless steel alloy.

All Model F1FR-SS series sprinklers use a 3 mm glass bulb operating element and beryllium-nickel alloy sealing washer gold plated per MIL-G-45204, Type 3, Class 2 with PTFE tape on both sides.

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.



F1FR56SS Upright



F1FR80SS Upright



F1FR56SS Pendent



F1FR80SS Pendent



Model F1
Recessed Escutcheon



Model F2
Recessed Escutcheon



Model FP
Recessed Escutcheon



Model B
Escutcheon

Table A

Sprinkler Model	Nominal K-Factor gpm/psi ^{1/2} (l/min/bar ^{1/2})	Thread Size NPT or ISO7-1	Sprinkler Identification Number (SIN)
F1FR56SS Pendent	5.6 (80)	1/2	RA6514
F1FR56SS Upright	5.6 (80)	1/2	RA6524
F1FR80SS Pendent	8.0 (115)	3/4	RA6512
F1FR80SS Upright	8.0 (115)	3/4	RA6522

Technical Specifications

Style: Pendant or Recessed Pendant
Threads: 1/2" NPT or ISO 7-1R1/2
Nominal K-Factor: 5.6 (80 metric)
Max. Working Pressure: 175 psi (12 bar)

Material Specifications

Thermal Sensor: 3 mm glass bulb
Frame: Type 316L stainless steel
Sealing Washer: Beryllium-nickel alloy gold plated per MIL-G-45204, Type 3, Class 2 w/ PTFE tape on both sides.
Load Screw: Type 316 stainless steel
Deflector: Type 316 stainless steel
Cap: Type 316 stainless steel

Recessed Escutcheons⁽¹⁾

F1 (cULus Listed)
F2 (cULus Listed, FM Approved)
FP (cULus Listed)

Guards and Shields⁽²⁾

D-1 Guard (cULus & FM)
 D-5 Guard & Shield (cULus & FM)
 C-1 Guard (FM)⁽³⁾
 C-5 Guard & Shield (FM)
 D-4 Guard & Shield (FM)
 S-1 Shield (cULus & FM)

Finishes

See Table B

Sensitivity

Quick-response

Temperature Rating

135°F (57°C)
 155°F (68°C)
 175°F (79°C)
 200°F (93°C)
 286°F (141°C)

Sprinkler Wrench

Model W2 (pendent)
 Model W4 (recessed pendent)

Listings and Approvals

cULus Listed
 FM Approved
 CE Listed (0786-CPR-40331)
 VdS Approved (G421006)

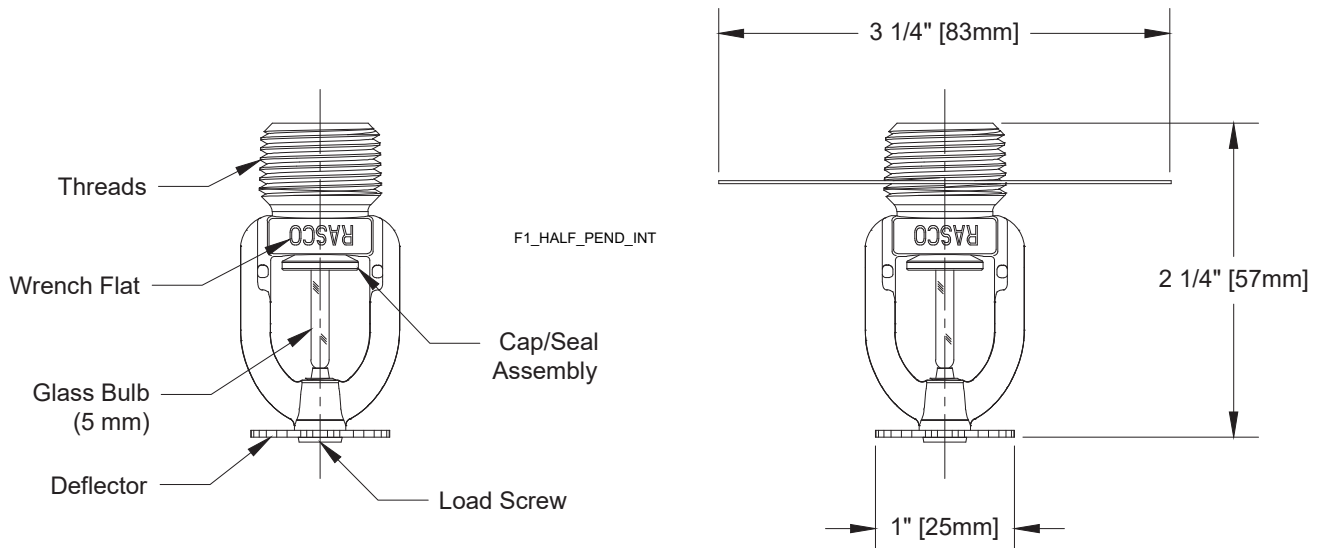


Notes:

1. For use only with maximum 200°F temperature rated sprinklers.
2. Guards and shields are formed from steel and are not considered corrosion resistant.
3. The Model C1 guard is available FM Approved in Type 316 stainless steel.

Model F1FR56SS Pendant Sprinkler Components and Dimensions

Figure 1



Shown with Optional S-1 Water Shield (Ordered Separately)

Note: See page 6 for recessed installation.

Technical Specifications

Style: Upright
Threads: 1/2" NPT or ISO 7-1R1/2
Nominal K-Factor: 5.6 (80 metric)
Max. Working Pressure: 175 psi (12 bar)

Material Specifications

Thermal Sensor: 3 mm glass bulb
Frame: Type 316L stainless steel
Sealing Washer: Beryllium-nickel alloy gold plated per MIL-G-45204, Type 3, Class 2 w/ PTFE tape on both sides.
Load Screw: Type 316 stainless steel
Deflector: Type 316 stainless steel
Cap: Type 316 stainless steel

Guards and Shields⁽¹⁾

D-1 Guard (cULus)
 D-3 Guard & Shield (cULus)
 C-1 Guard (FM)⁽²⁾
 C-3 Guard & Shield (cULus, FM)

Finishes

See Table B

Sensitivity

Quick-response

Temperature Rating

135°F (57°C)
 155°F (68°C)
 175°F (79°C)
 200°F (93°C)
 286°F (141°C)

Sprinkler Wrench

Model W2

Listings and Approvals

cULus Listed
 FM Approved
 CE Listed (0786-CPR-40332)
 VdS Approved (G421008)

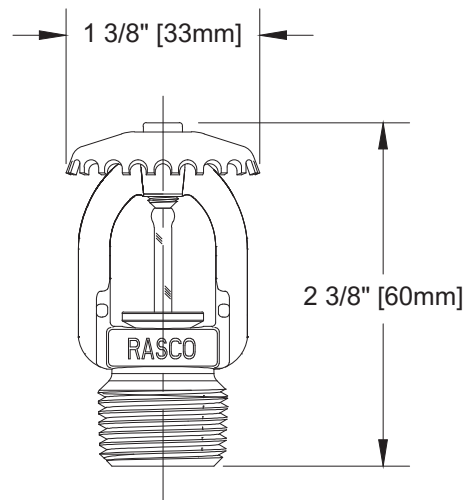
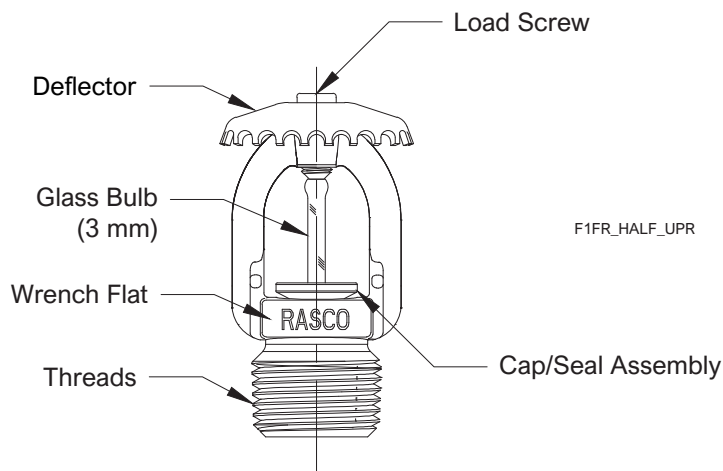


Note:

1. Guards and shields are formed from steel and are not considered corrosion resistant.
2. The Model C1 guard is available FM Approved in Type 316 stainless steel.

Model F1FR56SS Upright Sprinkler Components and Dimensions

Figure 2



Technical Specifications

Style: Pendant or Recessed Pendant
Threads: 3/4" NPT or ISO 7-1R3/4
Nominal K-Factor: 8.0 (115 metric)
Max. Working Pressure: 175 psi (12 bar)

Finishes

See Table B

Sensitivity

Quick-response

Material Specifications

Thermal Sensor: 3 mm glass bulb
Frame: Type 316L stainless steel
Sealing Washer: Beryllium-nickel alloy gold plated per MIL-G-45204, Type 3, Class 2 w/ PTFE tape on both sides.
Load Screw: Type 316 stainless steel
Deflector: Type 316 stainless steel
Cap: Type 316 stainless steel

Temperature Rating

135°F (57°C)
 155°F (68°C)
 175°F (79°C)
 200°F (93°C)
 286°F (141°C)

Sprinkler Wrench

Model W2 (pendent)
 Model W4 (recessed pendent)

Recessed Escutcheons⁽¹⁾

F1 (cULus Listed)
F2 (cULus Listed, FM Approved)
FP (cULus Listed)

Listings and Approvals

cULus Listed
 FM Approved
 CE Listed (0786-CPR-40337)
 VdS Approved (G421012)

Guards and Shields⁽²⁾

D-1 Guard (cULus)
 D-5 Guard & Shield (cULus)
 S-2 Shield (cULus, FM)
 C-1 Guard (FM)⁽³⁾
 C-5 Guard & Shield (FM)

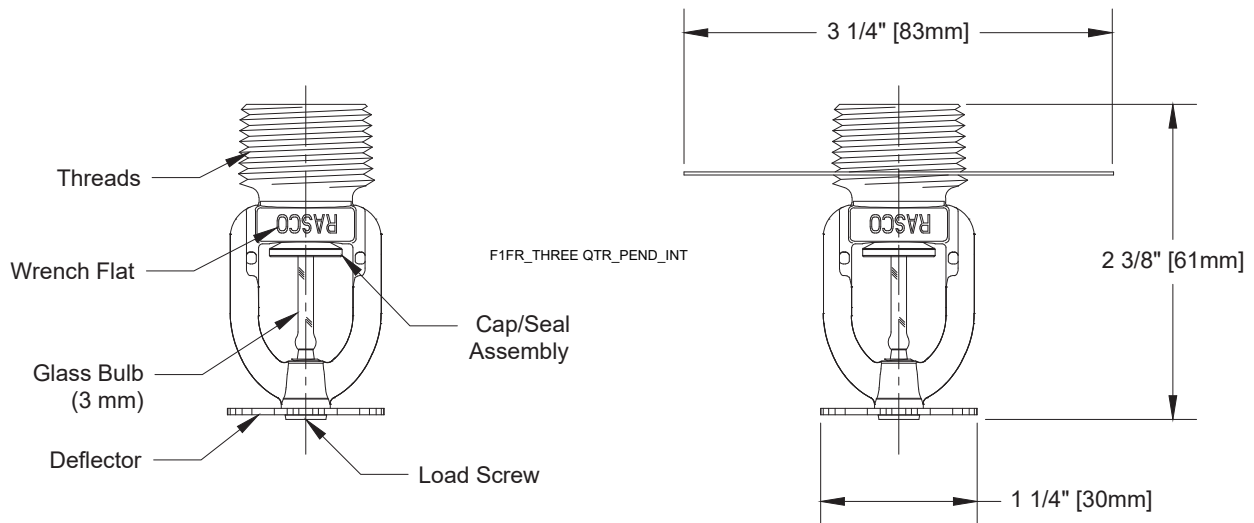


Notes:

1. For use only with maximum 200°F temperature rated sprinklers.
2. Guards and shields are formed from steel and are not considered corrosion resistant.
3. The Model C1 guard is available FM Approved in Type 316 stainless steel.

Model F1FR80SS Pendant Sprinkler Components and Dimensions

Figure 3



Shown with Optional S-1 Water Shield (Ordered Separately)

Note: See page 6 for recessed installation.

Technical Specifications

Style: Upright
Threads: 3/4" NPT or ISO 7-1R3/4
Nominal K-Factor: 8.0 (115 metric)
Max. Working Pressure: 175 psi (12 bar)

Material Specifications

Thermal Sensor: 3 mm glass bulb
Frame: Type 316L stainless steel
Sealing Washer: Beryllium-nickel alloy gold plated per MIL-G-45204, Type 3, Class 2 w/ PTFE tape on both sides.
Load Screw: Type 316 stainless steel
Deflector: Type 316 stainless steel
Cap: Type 316 stainless steel

Guards and Shields⁽¹⁾

D-1 Guard (cULus)
 D-3 Guard & Shield (cULus)
 C-1 Guard (FM)⁽²⁾
 C-3 Guard & Shield (cULus, FM)

Finishes

See Table B

Sensitivity

Quick-response

Temperature Rating

135°F (57°C)
 155°F (68°C)
 175°F (79°C)
 200°F (93°C)
 286°F (141°C)

Sprinkler Wrench

Model W2

Listings and Approvals

cULus Listed
 FM Approved
 CE Listed (0786-CPR-40336)
 VdS Approved (G421011)

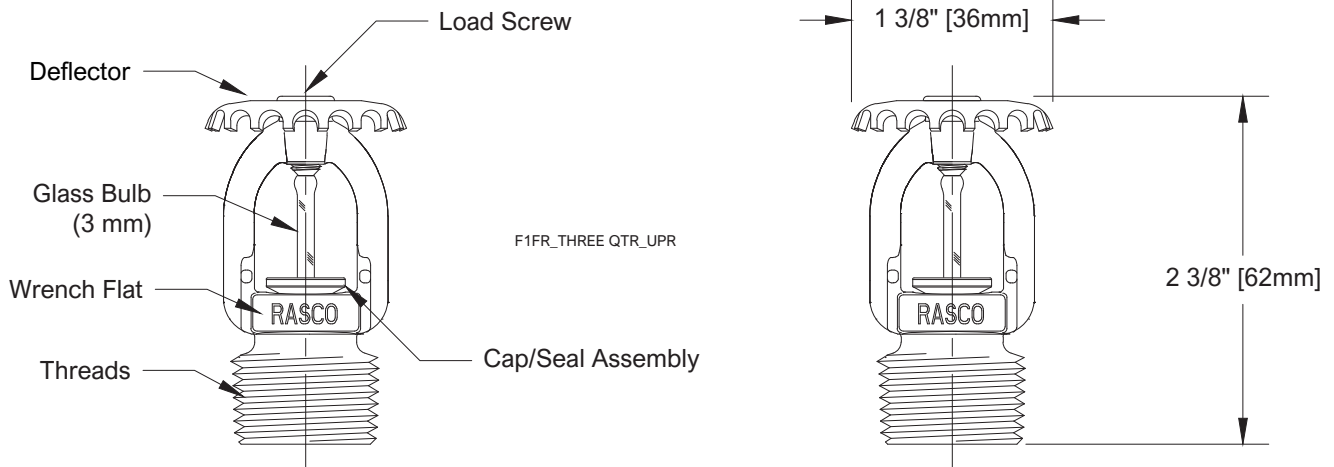


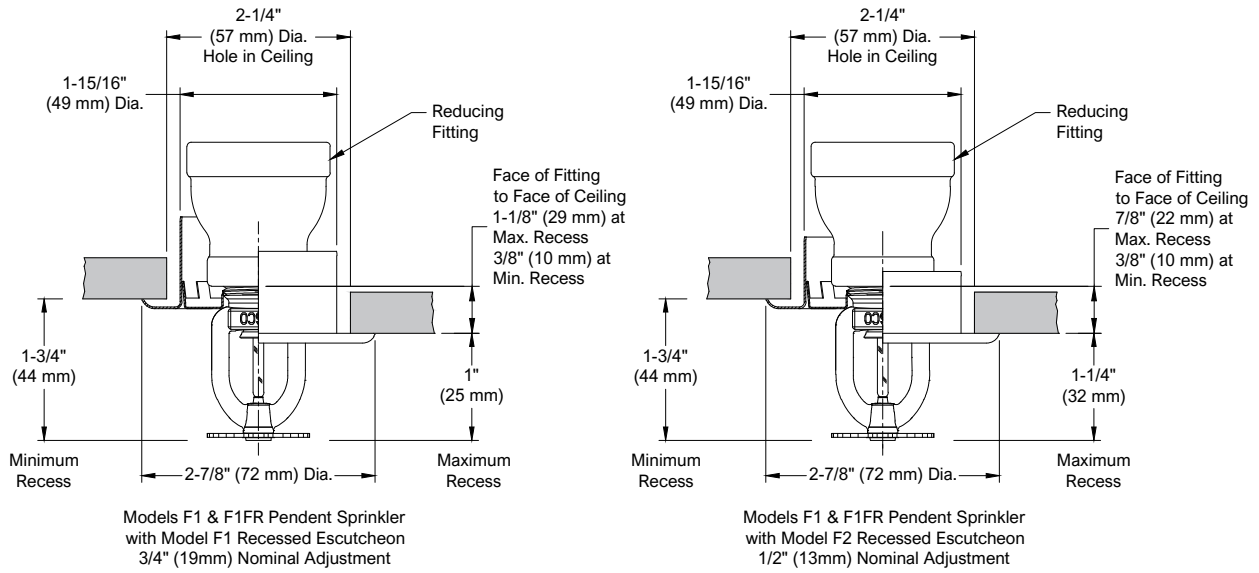
Note:

1. Guards and shields are formed from steel and are not considered corrosion resistant.
2. The Model C1 guard is available FM Approved in Type 316 stainless steel.

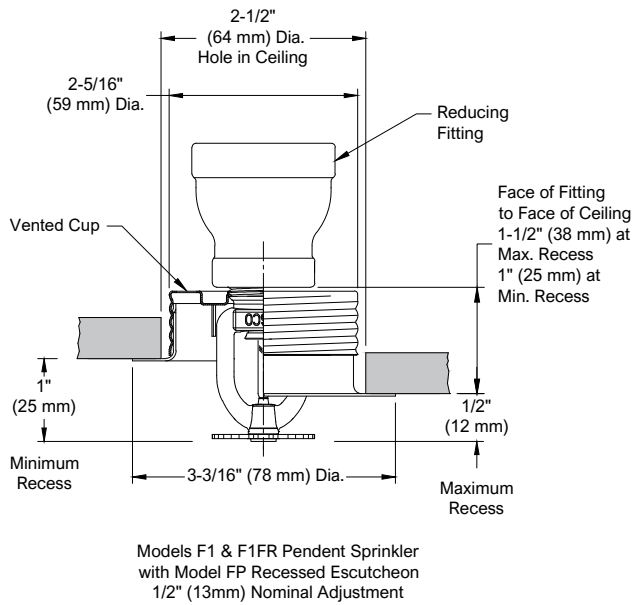
Model F1FR80SS Upright Sprinkler Components and Dimensions

Figure 4





F1_REC_PEND



Note: Model FP recessed assemblies may not be used where the pressure in the space above the ceiling is positive with respect to the protected area. Ensure that the openings in the Model FP cup are unobstructed following installation.

Wrench



Model W2 (upright, non-recessed pendent)



Model W4 (recessed pendent)

Application

Model F1FR-SS series sprinklers are standard spray, quick-response sprinklers intended for installation in accordance with NFPA 13 and the requirements of applicable Authorities Having Jurisdiction. Model F1FR-SS series sprinklers are cULus Listed and FM Approved as Corrosion Resistant sprinklers. Verify compatibility with the environment where the sprinkler will be located prior to installation.

Installation

Glass bulb sprinklers have orange bulb protectors to minimize bulb damage during shipping, handling, and installation. Reliable sprinkler installation wrenches are designed to install sprinklers with bulb protectors in place. Remove the bulb protector at the time when the sprinkler system is placed in service for fire protection. Removal of the bulb protector before this time may leave the bulb vulnerable to damage. Remove bulb protectors by undoing the clasp by hand. Do not use tools to remove bulb protectors.

Model F1FR-SS series sprinklers must be installed with the Reliable sprinkler installation wrench identified in this Bulletin. Any other wrench may damage the sprinkler. Recommended installation torque is 8 to 18 lb/ft (11 to 24 N/m) for 1/2" NPT and ISO7-1R1/2 sprinklers or 14 to 20 lb/ft (19 to 27 N/m) for 3/4" NPT and ISO7-1R3/4 sprinklers. Do not tighten sprinklers over the maximum recommended installation torque. Exceeding the maximum recommended installation torque may cause leakage or impairment of the sprinkler.

Recessed pendent sprinklers are to be installed as shown in Fig. 5. Model F1FR-SS series recessed pendent sprinklers may only be installed with the Reliable Model F1 stainless steel, Model F2 stainless steel, or Model FP stainless steel recessed escutcheon. The use of any other recessed escutcheon will void all approvals and negate all warranties.

Finishes

Table B

Sprinkler Finishes	Escutcheon Finishes
None White Polyester Custom Color Polyester	None White Polyester Custom Color Polyester

Maintenance

Model F1FR-SS series sprinklers should be inspected 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 gentle vacuuming. Replace 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.

Listings and Approvals

- cULus Listed
- FM Approved
- VdS Approved, CE Listed (see sprinkler pages for number)

Guarantee

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

Ordering Information

Specify the following when ordering:

Model

- [F1FR56SS] [F1FR80SS]

Orientation

- [Upright] [Pendent]

Temperature Rating

- See sprinkler pages

Threads

- [NPT] [ISO7-1]

Sprinkler Finish

- See Table B

Recessed Escutcheon (SS)

- [F1] [F2] [FP]

One-Piece Escutcheon (SS)

- B

Escutcheon Finish

- See Table B

Sprinkler Wrench

- Model W2 (upright, non-recessed pendent)
- Model W4 (recessed pendent)