Reliable®

# F1-56-300 Series
# Standard Response Sprinklers

K-factor 5.6 (80)

## Features

- Standard coverage standard-response sprinklers
- 300 psi (20.7 bar) rated
- Upright and pendent deflectors
- Low profile, compact design
- Available in a wide variety of finishes

## Product Description

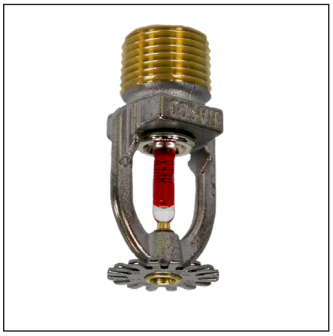
Reliable Model F1-56-300 series sprinklers are 300 psi (20.7 bar) rated, standard-response standard spray automatic fire sprinklers utilizing a 5.0 mm glass bulb thermal element.

Pendent sprinklers may be installed exposed or surface mounted using escutcheons such as the Reliable Models B, C, or HB (reference Technical Bulletin 204). When installed recessed, the Model F1-56-300 series sprinklers are specifically listed with and may only be installed with Reliable listed recessed escutcheons. Refer to the technical information on the following pages for specific listings for recessed and concealed installations and refer to Figure 3 for dimensional information.

When fitted with an approved water shield, these sprinklers may considered intermediate sprinklers for use in racks, below grated walkways, and other areas where intermediate level sprinklers are required.

Table A provides a summary of the approvals and availability of specific Model F1 series sprinkler configurations. Additional technical information for each sprinkler model is provided on the following pages.

**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.



Model F1-56-300 Pendent



Model F1-56-300 Upright

**Note:** Not all versions of the product are shown.

**F1-56-300 Series Sprinkler Summary** — **Table A**

| Sprinkler Model | K-Factor gpm/psi$^{1/2}$ (lpm/bar$^{1/2}$) | Orientation | Listings & Approvals | Max. Working Pressure psi (bar) | Sprinkler Identification Number (SIN) |
|---|---|---|---|---|---|
| F1-56-300 | 5.6 (80) | Upright | cULus | 300 (20.7) | RA2525 |
| | | Pendent | | | RA2514 |

## Model F1-56-300 Upright Sprinkler — SIN RA2525

**Technical Specifications**
**Style:** Upright
**Threads:** 1/2" NPT or ISO 7-R1/2
**Nominal K-Factor:** 5.6 (80 metric)
**Max. Working Pressure:** 300 psi (20.7 bar)

**Material Specifications**
**Thermal Sensor:** 5 mm Glass Bulb
**Sprinkler Frame:** Brass Alloy
**Cap:** Bronze Alloy
**Sealing Washer:** Nickel with PTFE
**Load Screw:** Copper Alloy
**Deflector:** Brass Alloy

**Sprinkler Finishes**
(See Table B)

**Sensitivity**
Standard response

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

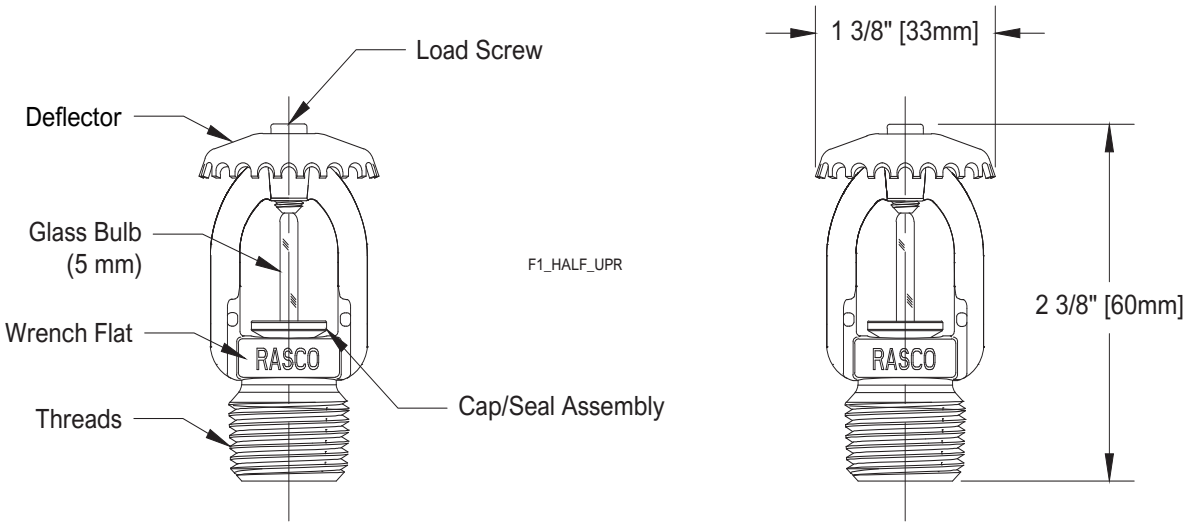
**Guards & Shields**
F-1 Guard
F-3 Guard with Shield

**Sprinkler Wrench**
Model W2
Model W14 (with guard installed)

**Listings and Approvals**
cULus Listed



**Model F1-56-300 Upright Sprinkler Components and Dimensions** — **Figure 1**



## Model F1-56-300 Pendent Sprinkler — SIN RA2514

**Technical Specifications**

**Style:**
Pendent
Recessed Pendent

**Threads:** 1/2" NPT or ISO 7-R1/2
**Nominal K-Factor:** 5.6 (80 metric)
**Max. Working Pressure:** 300 psi (20.7 bar)

**Material Specifications**

**Thermal Sensor:** 5 mm Glass Bulb
**Sprinkler Frame:** Brass Alloy
**Cap:** Bronze Alloy
**Sealing Washer:** Nickel with PTFE
**Load Screw:** Copper Alloy
**Deflector:** Brass Alloy

**Sprinkler Finishes**
(See Table B)

**Sensitivity**
Standard response

**Temperature Ratings** (1)
135°F (57°C)
155°F (68°C)
175°F (79°C)
200°F (93°C)
286°F (141°C)
360°F (182°C)

**Recessed Escutcheons**
Model F1
Model F2
Model FP

**Guards & Shields**(2)
F-7 Guard
F-8 Guard/Shield Kit
S-1 Shield

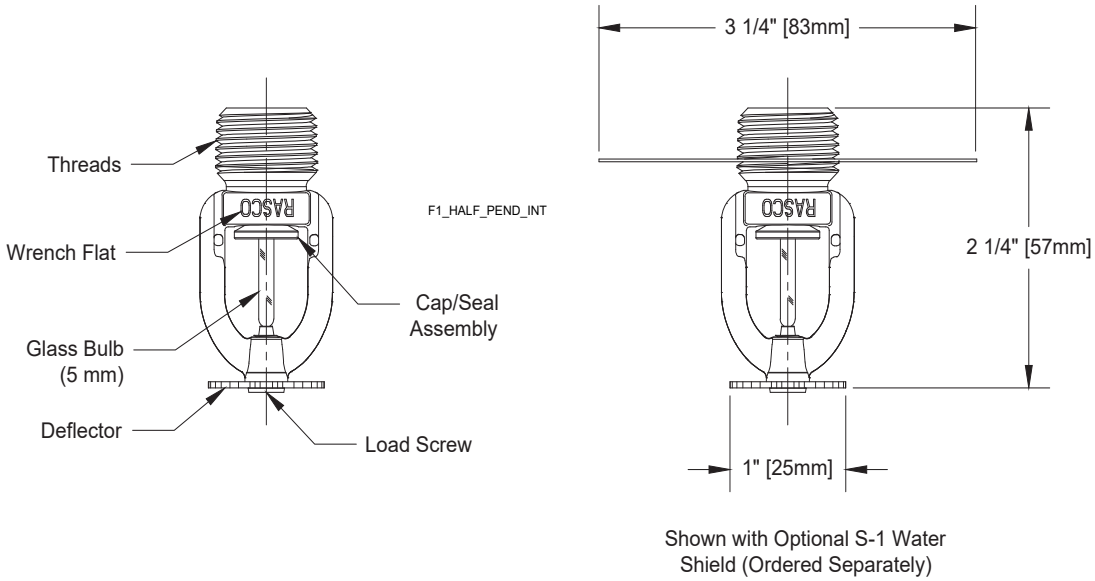
**Sprinkler Wrenches**
Model W2 (non-recessed)
Model W1 (recessed or concealed)
Model W14 (with guard installed)

**Listings and Approvals**
cULus Listed



**Notes:**
1. 286°F (141°C) and higher temperature rated sprinkler not listed for recessed use.
2. Not suitable for recessed pendent installation.

**Model F1-56-300 Pendent Sprinkler Components and Dimensions** — **Figure 2**

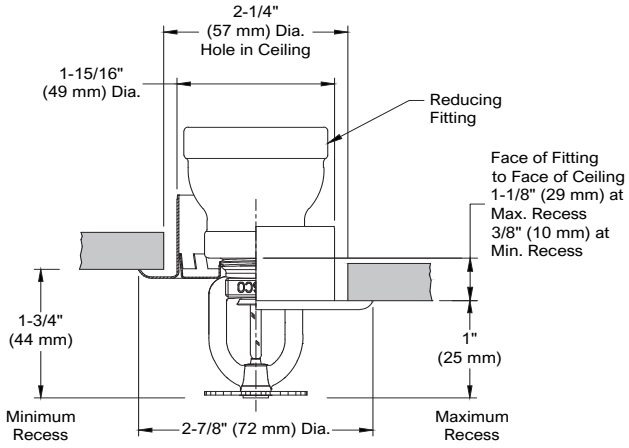



Shown with Optional S-1 Water Shield (Ordered Separately)

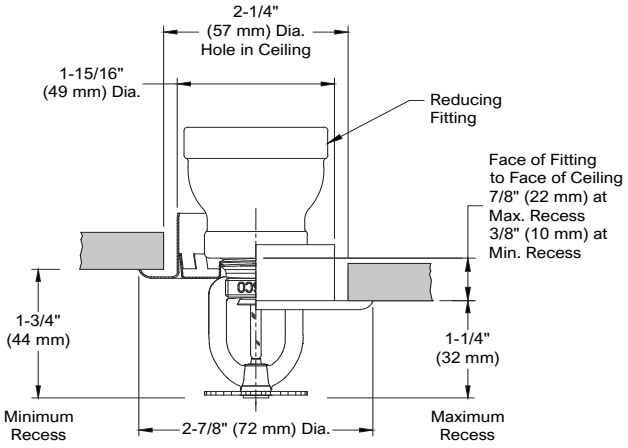
**Note:** Please refer to Figure 3 for recessed installation.

## Recessed Installation: Pendent Sprinklers

**Figure 3**

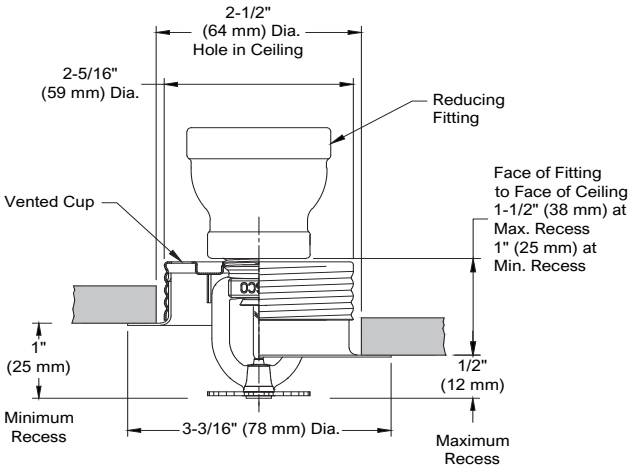



Models F1 & F1FR Pendent Sprinkler
with Model F1 Recessed Escutcheon
3/4" (19mm) Nominal Adjustment




Models F1 & F1FR Pendent Sprinkler
with Model F2 Recessed Escutcheon
1/2" (13mm) Nominal Adjustment

F1_REC_PEND




Models F1 & F1FR Pendent Sprinkler
with Model FP Recessed Escutcheon
1/2" (13mm) Nominal Adjustment

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.



F1 Recessed Escutcheon
(F2 Similar)



FP Recessed Escutcheon

## Wrenches




Model W2 (upright, pendent)



Model W14 (New frame with guard installed)




Model W1
(recessed, concealed pendent)

**Finishes[1]**

**Table B**

| Standard Finishes | | Special Application Finishes | |
|---|---|---|---|
| **Sprinkler** | **F1, F2 and FP[2] Escutcheons** | **Sprinkler** | **F1, F2 and FP[2] Escutcheons** |
| Bronze | Brass | Electroless Nickel PTFE[3] | Bright Brass |
| Chrome | Chrome | Bright Brass[4] | Satin Chrome |
| White Polyester[3] | White Polyester | Satin Chrome | Custom Color Polyester |
| | | Custom Color Polyester[3] | |
| | | Lead[3] | |
| | | Wax[3][6] | |
| | | Wax over Lead[3][6] | |

**Notes:**
1. Paint or any other coating applied over the factory finish will void all approvals and warranties.
2. Model FP escutcheons utilize a galvanized steel cup with a finished trim ring.
3. cULus Listed as corrosion resistant.
4. For 200°F (93°C) maximum temperature rated sprinklers only.
5. Clear wax used on ordinary temperature rated sprinklers; brown wax used on intermediate temperature rated sprinklers. Brown wax may be used on high temperature rated sprinklers where the ambient temperature does not exceed 150°F (66°C).

## Installation

Model F1 Series sprinklers must be installed in accordance with NFPA13 and the requirements of all applicable authorities having jurisdiction. Model F1-56-300 Series sprinklers must be installed with the Reliable sprinkler installation wrench identified in this Bulletin. Any other wrench may damage the sprinkler. A leak tight sprinkler joint can be obtained with a torque of 6 to 18 lb-ft (11 to 24 N·m). Do not tighten sprinklers over the maximum recommended installation torque. Exceeding the maximum recommended installation torque may cause leakage or impairment of the sprinkler.

Glass bulb sprinklers have orange bulb protectors or protective caps 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.

## Maintenance

Reliable Model F1-56-300 series sprinklers should be inspected and the sprinkler system maintained in accordance with NFPA 25, as well as the requirements of any Authorities Having Jurisdiction.

Prior to installation, sprinklers should remain in the original cartons and packaging until used. This will minimize the potential for damage to sprinklers that could cause improper operation or non-operation.

Do not clean sprinklers with soap and water, ammonia liquid or any other cleaning fluids. Remove dust by gentle vacuuming without touching the sprinkler.

Replace any sprinkler which has been painted (other than factory applied). A stock of spare sprinklers should be maintained to allow quick replacement of damaged or operated sprinklers. Failure to properly maintain sprinklers may result in inadvertent operation or non-operation during a fire event.

## Guarantee

For the guarantee, terms, and conditions, visit www.reliablesprinkler.com.

## Ordering Information

**Specify the following when ordering:**

**Model**
- F1-56-300

**Deflector/Orientation**
- Upright
- Pendent

**Temperature Rating**
- See sprinkler technical specifications

**Sprinkler Finish**
- See Table B

**Recessed Escutcheon***
- F1
- F2
- FP

**Escutcheon Finish**
- See Table B

**Sprinkler Wrench**
- Model W2 (upright, non-recessed pendent)
- Model W1 (recessed & concealed pendent)
- Model W14 (new frame with guard installed)

**Note:** 286°F (141°C) and higher temperature rated sprinklers are not listed to be used recessed.

P/N 9999970624