

# Reliable®

## Model F1FR56 Series Quick-Response Extended Coverage (QREC) Sprinklers

K-factor 5.6 (80)

### Features

- Extended coverage quick-response sprinklers
- Pendant and horizontal sidewall (EC-8) deflectors
- Low profile, compact design
- Available in a wide variety of finishes

### Product Description

Reliable Model F1FR56 QREC series sprinklers are quick-response extended coverage standard spray automatic fire sprinklers utilizing a sensitive 3.0 mm glass bulb thermal element for use in light hazard occupancies.

Pendent and horizontal sidewall 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 or concealed, the Model F1FR56 QREC series sprinklers are specifically listed with and may only be installed with listed Reliable escutcheons and cover plates. Refer to the technical information on the following pages for specific listings for recessed and concealed installations and refer to Figures 3 and 4 for dimensional information.

Table A provides a summary of the approvals and availability of specific Model F1FR56 QREC 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 F1FR56 QREC Pendant

Model F1FR56 QREC  
Horizontal Sidewall

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

### Sprinkler Summary

Table A

Sprinkler Model	K-Factor gpm/psi <sup>1/2</sup> (lpm/bar <sup>1/2</sup> )	Orientation	Listings & Approvals	Max. Working Pressure psi (bar)	Sprinkler Identification Number (SIN)
F1FR56 QREC	5.6 (80)	Pendent	cULus	250 (17.2)	RA2845
		Concealed Pendent	cULus	250 (17.2)	RA2845
		Horizontal Sidewall	cULus, FM	175 (12)	RA2865

**Technical Specifications**

**Style:**

- Pendent
- Recessed Pendent
- Concealed Pendent

**Threads:** 1/2" NPT or ISO 7-R1/2

**Nominal K-Factor:** 5.6 (80 metric)

**Max. Working Pressure:**  
250 psi (17.2 bar)

**Material Specifications**

**Thermal Sensor:** 3 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**

Quick response

**Temperature Ratings**

135°F (57°C)

155°F (68°C)

**Recessed Escutcheons**

Model F1

Model F2

Model FP

**Cover Plate**

Model CCP (135°F [57°C])

**Sprinkler Wrenches**

Model W2 (non-recessed)

Model W4 (recessed or concealed)

**Listings and Approvals<sup>(1)</sup>**

cULus Listed

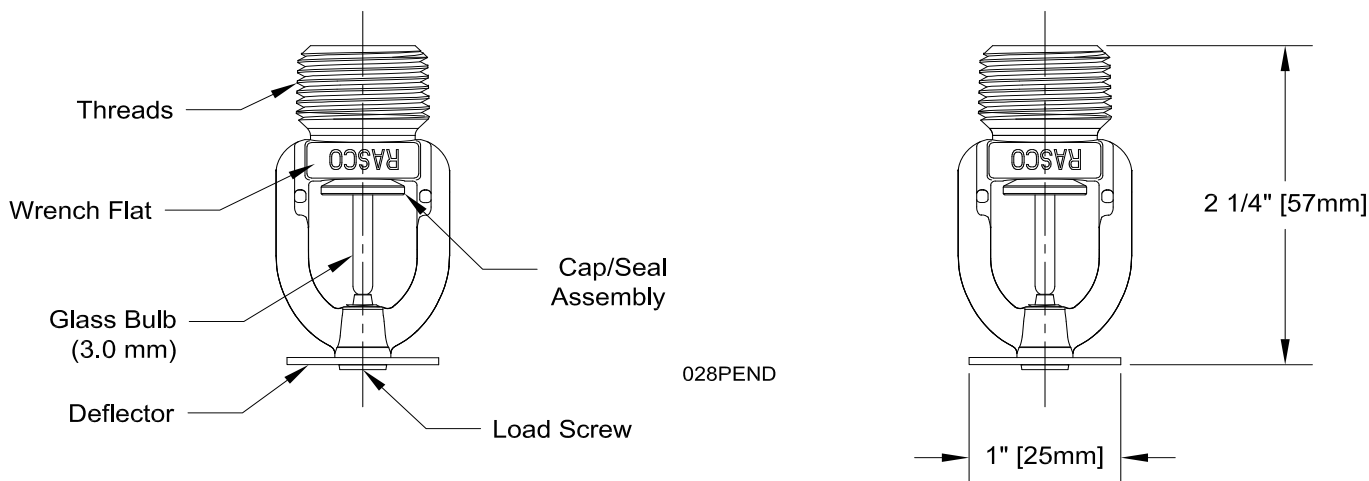


**Notes:**

1. Listed for light hazard use only.

**Model F1FR56 EC Pendent Sprinkler Components and Dimensions**

**Figure 1**



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

**F1FR56 EC Pendent Required Minimum Flow and Pressure**

**Table B**

Coverage Area ft x ft (m x m)	Flow gpm (L/min)	Pressure psi (bar)
16 x 16 (4.9 x 4.9)	26 (98.4)	21.6 (1.5)
18 x 18 (5.5 x 5.5)	33 (125.0)	34.7 (2.4)
20 x 20 (6.0 x 6.0) <sup>(1)</sup>	40 (151.4)	51.0 (3.5)

**Note:** For cULus Listing, limited to 135°F (57°C) temperature rating only.

**Model F1FR56 Extended Coverage Horizontal Sidewall Sprinkler**

**SIN RA2865**

**Technical Specifications**

**Style:**

- Horizontal Sidewall
- Recessed Horizontal Sidewall

**Threads:** 1/2" NPT or ISO 7-R1/2

**Nominal K-Factor:** 5.6 (80 metric)

**Max. Working Pressure:**

175 psi (12 bar)

**Material Specifications**

**Thermal Sensor:** 3 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**

Quick response

**Temperature Ratings**

135°F (57°C)

155°F (68°C)

175°F (79°C)

**Recessed Escutcheons**

Model F1

Model F2

Model FP

**Sprinkler Wrenches**

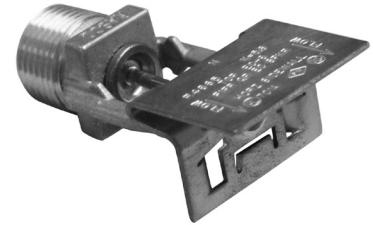
Model W2 (non-recessed)

Model W4 (recessed)

**Listings and Approvals<sup>(1)</sup>**

cULus Listed

FM Approved<sup>(2)</sup>

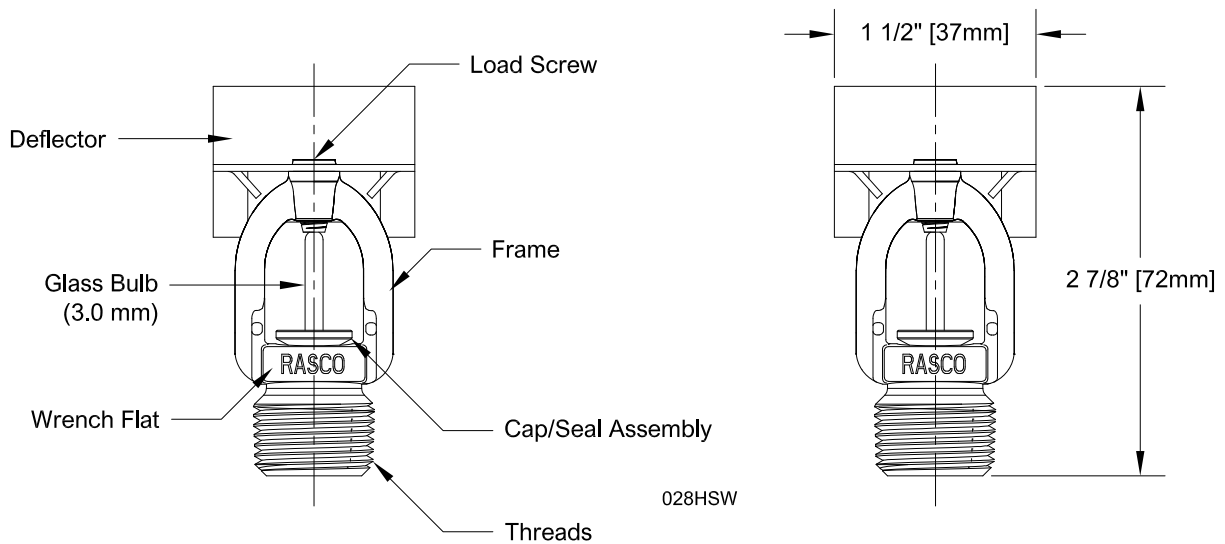


**Notes:**

1. Listed and Approved for light hazard only.
2. FM Approved in 135°F (57°C) temperature rating only.

**Model F1FR56 EC Horizontal Sidewall Sprinkler Components and Dimensions**

**Figure 2**

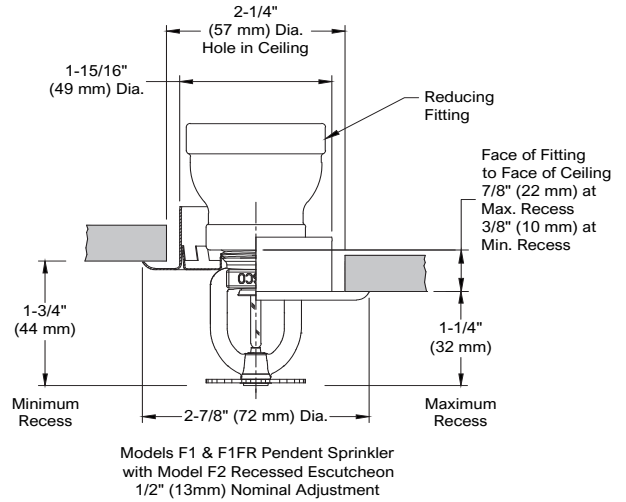
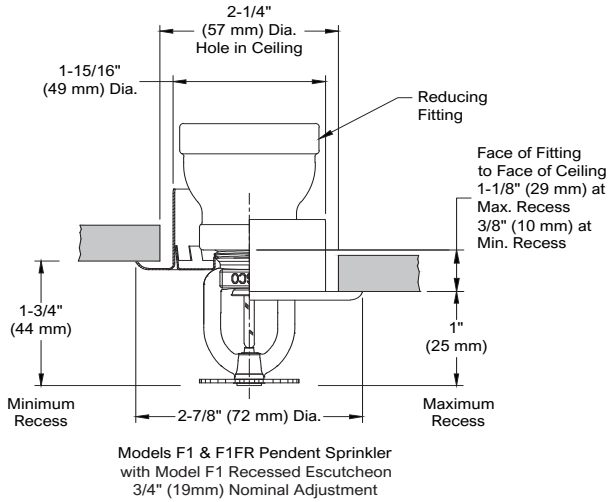


**Note:** Please refer to Figure 4 for recessed installation.

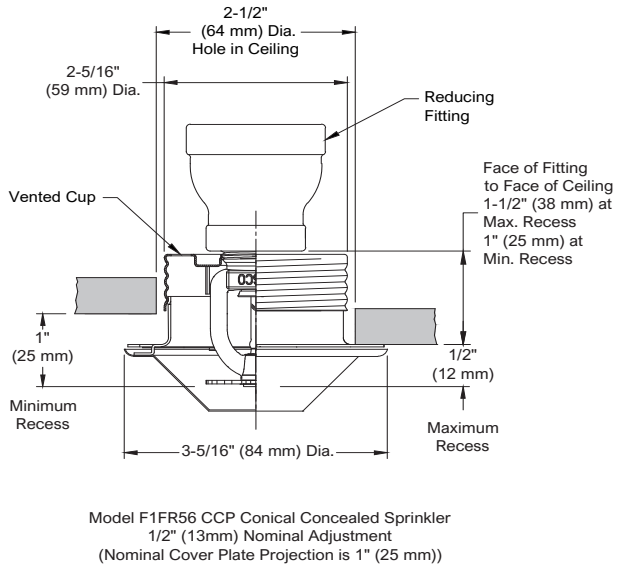
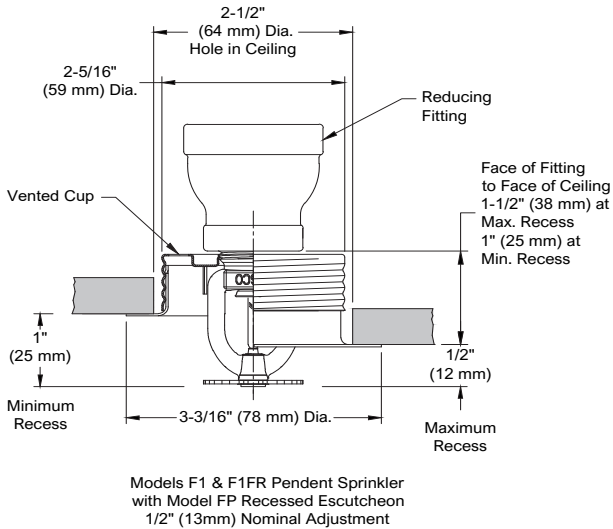
**F1FR56 EC Horizontal Sidewall Required Minimum Flow and Pressure**

**Table C**

Coverage Area ft x ft (m x m)	cULus		FM	
	Flow gpm (L/min)	Pressure psi (bar)	Flow gpm (L/min)	Pressure psi (bar)
16 x 16 (4.9 x 4.9)	26 (98.4)	21.6 (1.5)	26 (98.4)	21.5 (1.5)
16 x 18 (4.9 x 5.5)	29 (125.0)	26.6 (1.8)	30 (113.6)	28.5 (2.0)
16 x 20 (4.9 x 6.0)	32 (121.1)	32.4 (2.2)	33 (125.0)	34.5 (2.4)



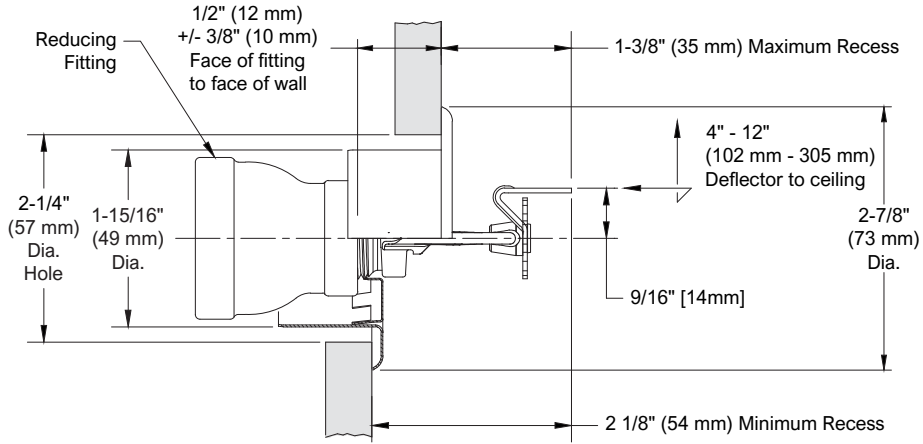
F1\_REC\_PEND\_CCP



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.

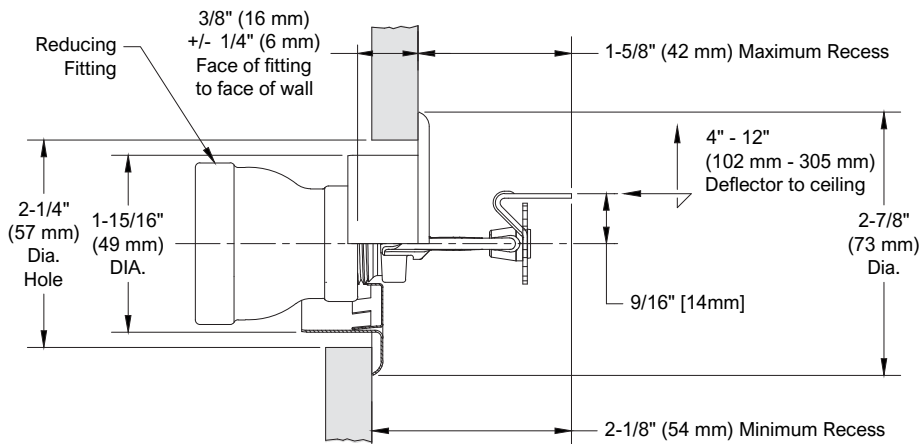
Note: Model CCP concealed assemblies may not be used where the pressure in the space above the ceiling is positive with respect to the protected area. Ensure that the openings in the Model CCP cup are unobstructed following installation.





Model F1FR Horizontal Sidewall Sprinkler  
with Model F1 Recessed Escutcheon  
3/4" (19mm) Nominal Adjustment

F1\_REC\_HSW\_NO FP



Model F1FR Horizontal Sidewall Sprinkler  
with Model F2 Recessed Escutcheon  
1/2" (13mm) Nominal Adjustment



Model F1 Recessed Escutcheon  
(Model F2 similar)

## Wrenches



Model W2 (non-recessed)



Model W4  
(recessed, concealed pendent)

## Finishes<sup>(1)</sup>

Table B

Standard Finishes			Special Application Finishes		
Sprinkler	F1, F2 and FP <sup>(2)</sup> Escutcheons	CCP Cover Plate <sup>(2)</sup>	Sprinkler	F1, F2 and FP <sup>(2)</sup> Escutcheons	CCP Cover Plate <sup>(2)</sup>
Bronze	Brass	Chrome	Electroless Nickel PTFE <sup>(3)(4)</sup>	Bright Brass	Bright Brass
Chrome	Chrome	White Paint	Bright Brass	Satin Chrome	Satin Chrome
White Polyester <sup>(3)</sup>	White Polyester		Satin Chrome	Custom Color Polyester	Custom Color Paint
			Custom Color Polyester <sup>(3)</sup>		

### Notes:

1. Paint or any other coating applied over the factory finish will void all approvals and warranties.
2. Model FP escutcheons and Model CCP sprinklers utilize a galvanized steel cup with a finished trim ring or cover plate.
3. cULus Listed as corrosion resistant.
4. FM Approved as corrosion resistant (horizontal sidewall only).

## Installation

Model F1FR EC Series sprinklers must be installed in accordance with NFPA13 and the requirements of all applicable authorities having jurisdiction using the Reliable sprinkler installation wrench identified in this bulletin. Any other wrench may damage the sprinkler. The Models W2 and W4 wrenches have two sets of jaws. Use the smallest set of jaws that fit on the wrench flats of the sprinkler. A leak tight sprinkler joint can be obtained with a torque of 8 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 F1FR EC 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](http://www.reliablesprinkler.com).

## Ordering Information

Specify the following when ordering:

### Model

- F1FR56 QREC

### Deflector/Orientation

- Pendent
- CCP Concealed Pendent
- Horizontal Sidewall

### Temperature Rating

- See sprinkler technical specifications

### Sprinkler Finish

- See Table B

### Recessed Escutcheon

- F1
- F2
- FP

### Escutcheon Finish

- See Table B

### CCP Cover Plate Temperature Rating

- 135°F (57°C)

### CCP Cover Plate Finish

- See Table B

### Sprinkler Wrench

- Model W2 (non-recessed)
- Model W4 (recessed, concealed)