

Reliable®

Model KFR56-300 Series Sprinklers

Quick-response, Standard Spray Fusible Link Sprinklers

K5.6 (80 metric), 300 psi (20.7 bar) rated
cULus Listed

Product Description

Model KFR56-300 series sprinklers are standard spray, quick-response sprinklers with a fusible link operating element. The sprinklers are cULus Listed for a maximum working pressure of 300 psi (20.7 bar). See Table C for available finishes. All KFR56-300 sprinklers have a nominal K-factor of 5.6 (80 metric).

Model KFR56-300 series sprinklers are available in Ordinary (165°F [74°C]) or Intermediate (212°F [100°C]) temperature classification. Model KFR56-300 Pendent sprinklers are available with Model F1, Model F2, or Model FP recessed escutcheons.

Application

Model KFR56-300 series sprinklers are listed and approved for installation in accordance with NFPA 13. Follow requirements of NFPA 13 for Quick-response Standard Spray Sprinklers when installing Model KFR56-300 series sprinklers.

Installation

Model KFR56-300 series sprinklers must be installed in accordance with the requirements of NFPA 13. The Model F1, F2, and FP escutcheons are the only recessed escutcheons listed and approved for use with Model KFR56-300 Pendent sprinklers. The use of any other recessed escutcheon will void all approvals and warranties. Do not install Model FP escutcheons in ceilings that are positively pressurized with respect to the occupied space below.

Use only the Model W2 sprinkler wrench for installing Model KFR56-300 series pendent, upright, and horizontal sidewall sprinklers, and use only the Model W1 wrench for installing Model KFR56-300 series recessed pendent, conical concealed pendent (CCP), and recessed horizontal sidewall sprinklers. The use of wrenches other than those specified may damage these sprinklers.

Recommended installation torque is 14-20 ft-lbs (19 – 27 N·m). Do not tighten sprinklers over the maximum recommended torque. Exceeding the maximum recommended torque may cause leakage or impairment of the sprinklers.

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 KFR56-300 Pendent



Model KFR56-300 Upright



Model CCP



Model KFR56-300 HSW

Listings & Approvals

Listed by Underwriters Laboratories, Inc. and UL Certified for Canada (cULus)

- Sprinklers, Automatic and Open (VNIV)

Model KFR Series Sprinkler Summary

Table A

Sprinkler Model	Orientation	Listing or Approval	Max. Working Pressure psi (bar)	Sprinkler Identification Number (SIN)
KFR56-300 Pendent	Pendent	cULus	300 (20.7)	RA3914
KFR56-300 Upright	Upright	cULus	300 (20.7)	RA3924
KFR56-300 HSW	HSW	cULus	300 (20.7)	RA3934

Technical Specifications

Style: Pendent, Recessed Pendent, or Conical
Concealed Pendent

Threads: 1/2" NPT or ISO7-1R1/2

Nominal K-Factor: 5.6 (80 metric)

Max. Working Pressure: 300 psi (20.7 bar)

Material Specifications

Thermal Sensor: Beryllium Nickel

Strut and Lever: Stainless Steel

Roto-clip: Stainless Steel

Sprinkler Frame: Brass Alloy

Cap: Bronze Alloy

Sealing Washer: Nickel with PTFE

Load Screw: Copper Alloy

Deflector: Brass Alloy

Sprinkler Wrenches

Model W2 (pendent)

Model W1 (recessed)

Model W14 (with guard installed)

Listings and Approvals

cULus Listed

Sprinkler Finishes

(See Table C)

Sensitivity

Quick-response

Temperature Ratings

165°F (74°C), Gray Link

212°F (100°C), White Link

Recessed Escutcheons/Cover Plates

Model F1 escutcheon

Model F2 escutcheon

Model FP escutcheon

Model CCP cover plate

Guards/Water Shields

F-7 Guard

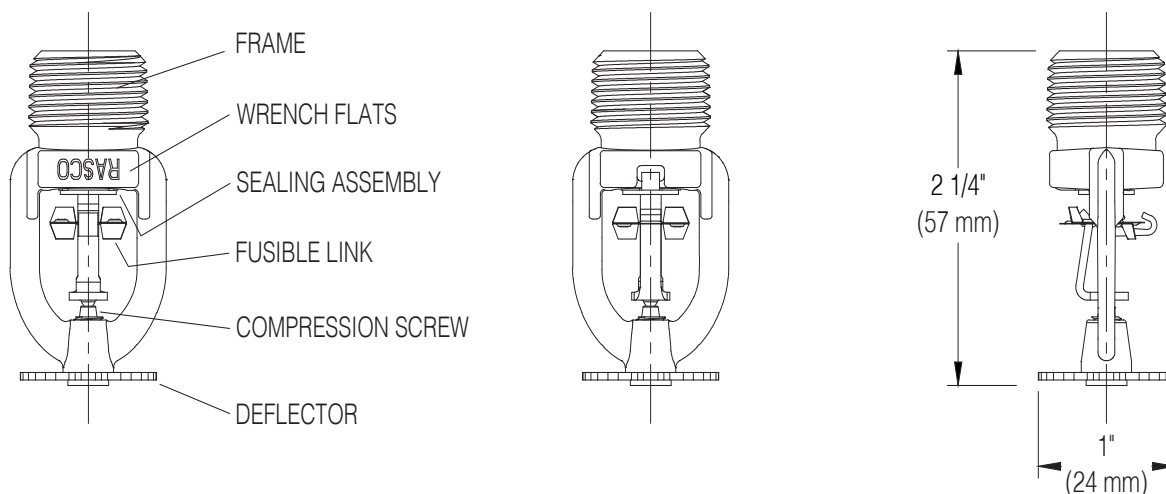
F-8 Guard/Water Shield

S-1 Water Shield



Model KFR56-300 Pendent Sprinkler Components and Dimensions

Figure 1



Technical Specifications

Style: Upright
Threads: 1/2" NPT or ISO7-1R1/2
Nominal K-Factor: 5.6 (80 metric)
Max. Working Pressure: 300 psi (20.7bar)

Material Specifications

Thermal Sensor: Beryllium Nickel
Strut and Lever: Stainless Steel
Roto-clip: Stainless Steel
Sprinkler Frame: Brass Alloy
Cap: Bronze Alloy
Sealing Washer: Nickel with PTFE
Load Screw: Copper Alloy
Deflector: Brass Alloy

Sprinkler Wrench

Model W2
 Model W14 (with guard installed)

Listings and Approvals

cULus Listed

Sprinkler Finishes
 (See Table C)

Sensitivity
 Quick-response

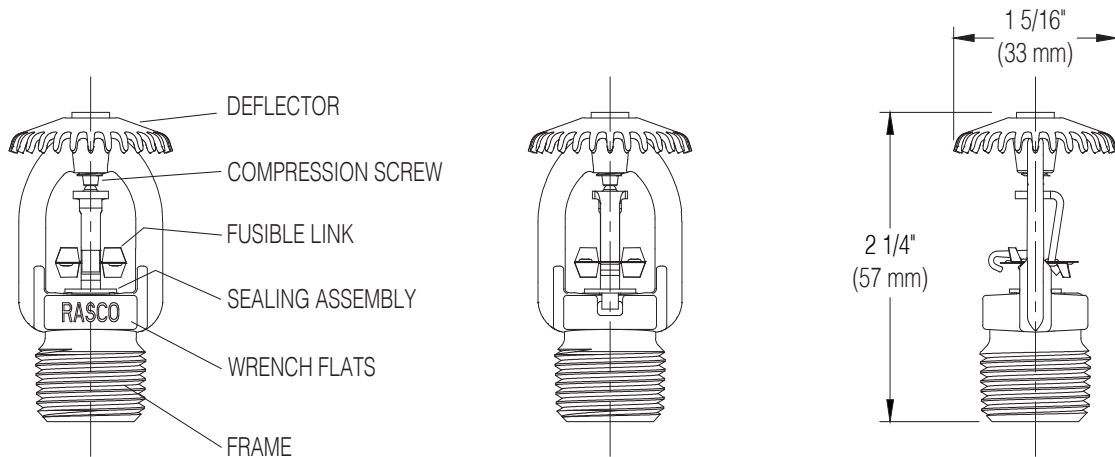
Temperature Ratings
 165°F (74°C), Gray Link
 212°F (100°C), White Link

Guards/Water Shields
 F-1 Guard
 F-3 Guard/Water Shield



Model KFR56-300 Upright Sprinkler Components and Dimensions

Figure 2



Technical Specifications

Style: HSW or Recessed HSW
Threads: 1/2" NPT or ISO7-1R1/2
Nominal K-Factor: 5.6 (80 metric)
Max. Working Pressure: 300 psi (20.7 bar)

Material Specifications

Thermal Sensor: Beryllium Nickel
Strut and Lever: Stainless Steel
Roto-clip: Stainless Steel
Sprinkler Frame: Brass Alloy
Cap: Bronze Alloy
Sealing Washer: Nickel with PTFE
Load Screw: Copper Alloy
Deflector: Brass Alloy

Sprinkler Wrench

Model W2 (HSW)
 Model W1 (recessed)
 Model W14 (with guard installed)

Listings and Approvals

cULus Listed⁽¹⁾

Sprinkler Finishes

(See Table C)

Sensitivity

Quick-response

Temperature Ratings

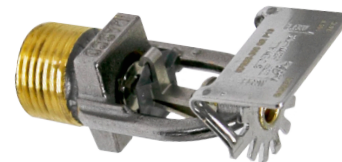
165°F (74°C), Gray Link
 212°F (100°C), White Link

Recessed Escutcheons

Model F1 escutcheon
 Model FP escutcheon

Guards

F-7 Guard

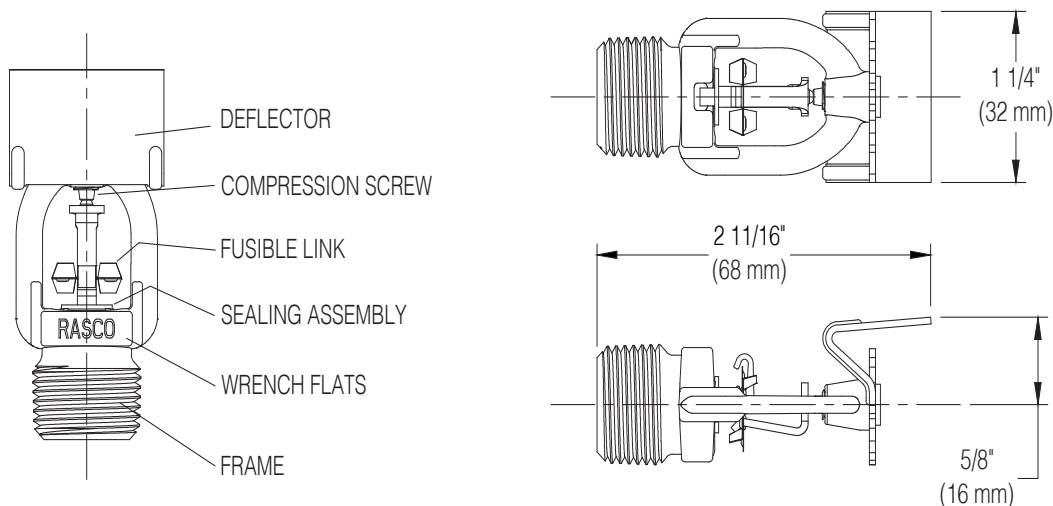


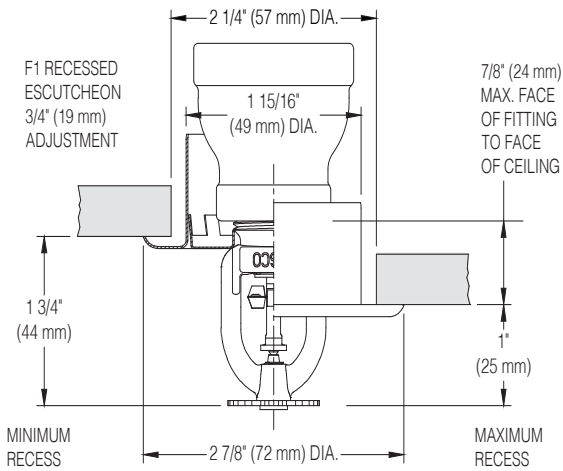
Notes:

1. cULus Listed for Light and Ordinary Hazard when installed exposed or surface mounted. Listed for Light Hazard ONLY when installed recessed.

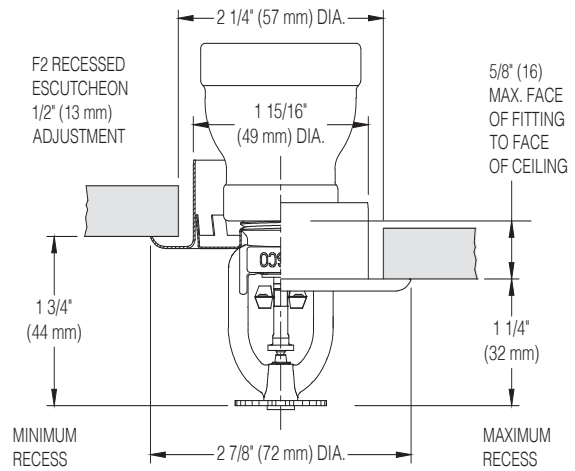
Model KFR56-300 HSW Sprinkler Components and Dimensions

Figure 3

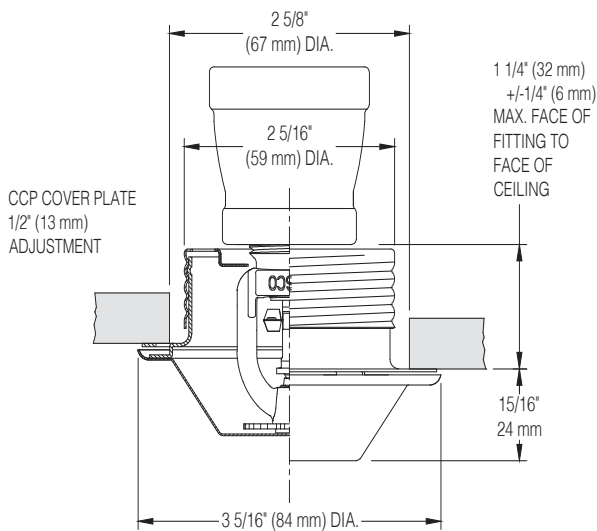




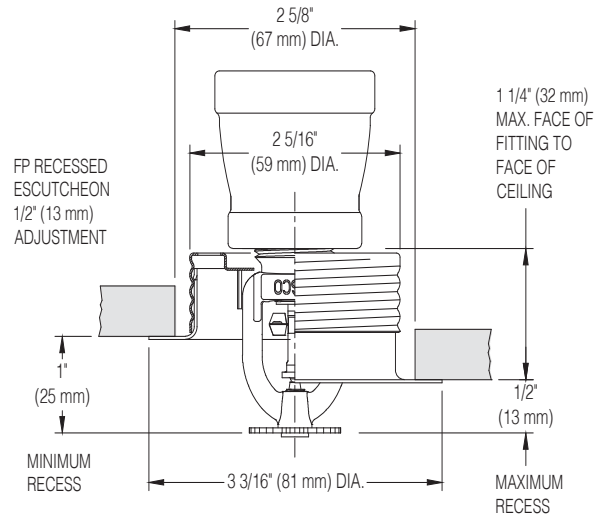
F1 RECESSED ESCUTCHEON INSTALLATION



F2 RECESSED ESCUTCHEON INSTALLATION



CCP COVER PLATE INSTALLATION

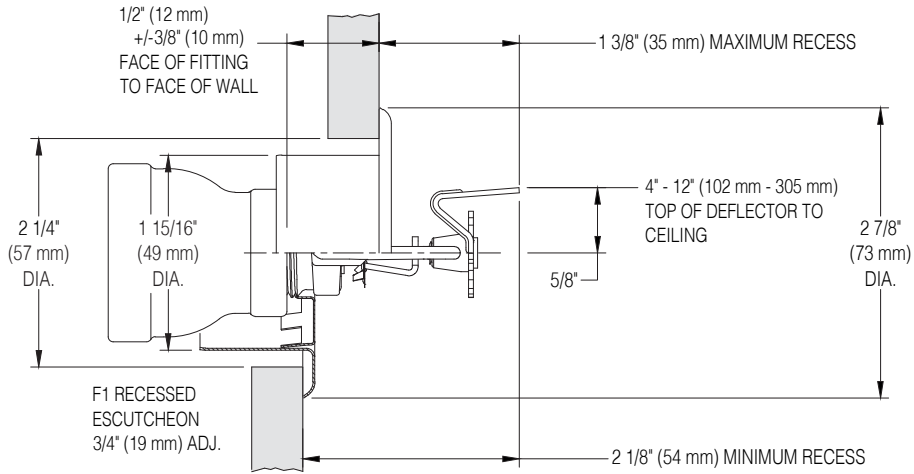


FP RECESSED ESCUTCHEON INSTALLATION

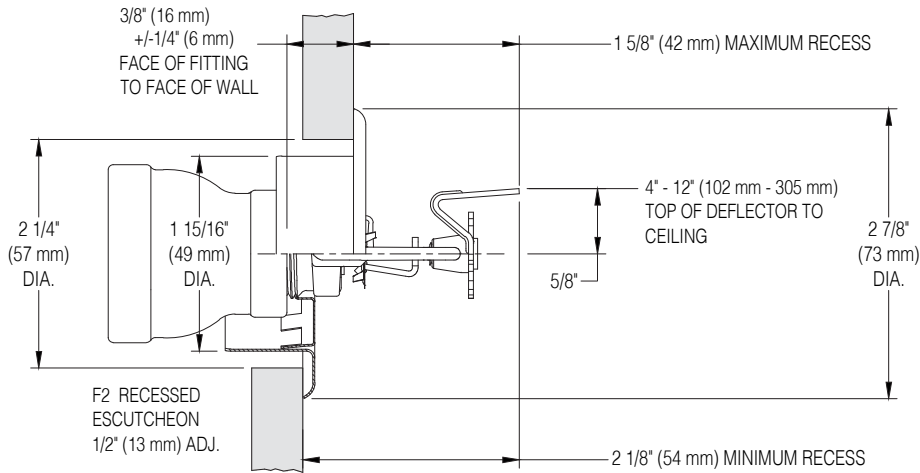
Note: Model KFR sprinklers with Model CCP cover plate or Model FP recessed escutcheon may not be used in locations where the pressure in the ceiling above the sprinkler is positive with respect to the protected space. Ensure that the holes in the sprinkler cup are unobstructed following installation.



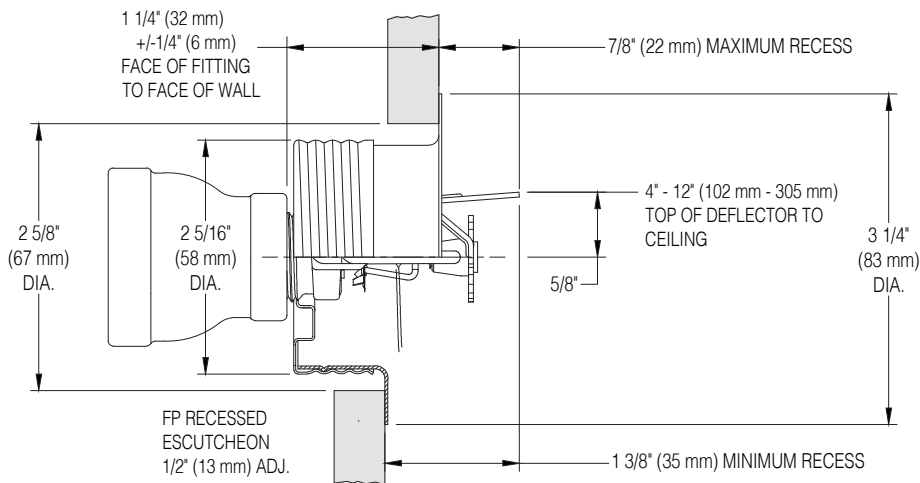
Note: Photos are intended to depict escutcheon style; actual sprinkler will vary.



F1 RECESSED ESCUTCHEON INSTALLATION



F2 RECESSED ESCUTCHEON INSTALLATION



FP RECESSED ESCUTCHEON INSTALLATION

Note: Model KFR sprinklers with Model FP recessed escutcheon may not be used in locations where the pressure in the space behind the sprinkler is positive with respect to the protected space. Ensure that the holes in the sprinkler cup are unobstructed following installation.

Sprinklers, Escutcheons, and Cover Plate Finishes⁽¹⁾

Table C

Standard Finishes			Special Application Finishes		
Sprinkler	F1, F2 , and FP ⁽²⁾ Escutcheons	CCP Cover Plate	Sprinkler	F1, F2 , and FP ⁽²⁾ Escutcheons	CCP Cover Plate
Bronze	Brass	--	Bright Brass	Bright Brass	Bright Brass
Chrome Plated	Chrome Plated	Chrome Plated	Satin Chrome	Satin Chrome	Satin Chrome
White Polyester	White Polyester	White Paint	Black Polyester	Black Polyester	Black Paint
			Custom Color Polyester	Custom Color Polyester	Custom Color Paint

Notes:

⁽¹⁾ Paint or any other coating applied over the factory finish will void all approvals and warranties.

⁽²⁾ The Model FP escutcheon assembly consists of an unfinished galvanized cup with a finished escutcheon ring.

Wrench



Model W2 (upright, pendent, & HSW)



Model W1 (recessed pendent & HSW, CCP)



Model W14 (with guard installed)

Maintenance

Reliable Model KFR56-300 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 Reliable Automatic Sprinkler Co., Inc. guarantee, terms, and conditions, visit www.reliablesprinkler.com.

Ordering Information

Specify the following when ordering.

Sprinkler

- Model (KFR56-300 Pendent, KFR56-300 Upright, or KFR56-300 HSW)
- Temperature Rating [165°F (74°C) or 212°F (100°C)]
- Threads (1/2" NPT or ISO 7-1 R1/2)
- Finish (See Table C)

Escutcheon or Coverplate

- Type (None, F1, F2, FP, or CCP)
- Finish (See Table C)

Guards/Water Shields

- See sprinkler information pages in this bulletin

Sprinkler Wrench

- W2 (Pendent, Upright, & HSW)
- W1 (Recessed Pendent & HSW, CCP)
- W14 (with guard installed)