



Model KFR56 Series 300 psi (20,7 bar) Rated Quick Response Standard Spray

Model KFR56-300 Sprinkler Types

Standard Upright
Standard Pendent
Horizontal Sidewall

Model KFR56-300 Recessed Sprinkler Types

Recessed Pendent F1/F2/FP
Recessed Horizontal Sidewall F1/F2/FP

Model KFR56-300 Concealed Sprinkler Types

Concealed Pendent CCP

Listing & Approvals

1. Underwriters Laboratories Inc. and Certified for Canada (cULus)(All orientations).

UL Listing Category

Sprinklers, Automatic & Open (VNIV)
Quick Response Sprinkler

Product Description

Reliable Models KFR56-300 QR Upright, Pendent, Horizontal Sidewall, and Concealed Sprinklers are high pressure rated automatic sprinklers which can handle a maximum service pressure of 300 psi (20,7 bar).

These automatic sprinklers are quick response sprinklers which utilize a soldered link. They have demonstrated response times in laboratory tests which are five to ten times faster than standard response sprinklers. This quick response enables Model KFR56-300 sprinklers to apply water to a fire much faster than standard response sprinklers of the same temperature rating.

The temperature rating of the sprinkler is identified by marking on deflector: for visual temperature identification, the 212°F soldered links are factory marked with green stripe as shown in Figure 1.

Application

The most common applications for Model KFR56-300 Series Quick Response Sprinklers will be in fire protection systems for high rise buildings where a quick response rating is required and the pressure entering the sprinkler system is in excess of 175 psi (12 bar). The use of these sprinklers will provide opportunity to reduce or eliminate the need for pressure reducing valves.



Upright



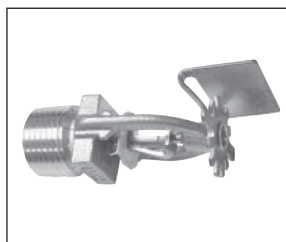
Pendent



Recessed
Pendent/FP



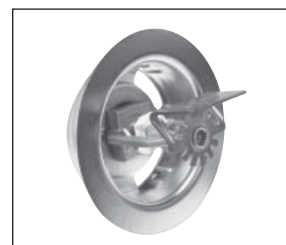
Recessed
Pendent/F1/F2



Horizontal Sidewall
(HSW)



Recessed
Horizontal Sidewall F1/F2



Recessed
Horizontal Sidewall FP
(HSW)



CCP Concealed
Pendent

Installation

Quick response sprinklers are intended for installation as specified in NFPA 13. Quick response sprinklers and standard response sprinklers should not be intermixed.

The Model KFR56-300 Recessed Quick Response Sprinklers are to be installed as shown. The Model F1, F2 & FP Escutcheons illustrated are the only recessed escutcheons to be used with the Model KFR56-300 Sprinklers. The use of any other recessed escutcheon will void all approvals and negate all warranties.

Model KFR56-300 Sprinkler Information Table

Orientation	Nominal Orifice (15mm)	Thread Size	Nominal K Factor		Sprinkler Height	Approvals	Temperature	Frame / Deflector Finish	Fusible Element Color	Sprinkler Identification Number (SIN)	Installation Wrench
			US	Metric							
Pendent	1/2" NPT (R1/2)	1/2" NPT (R1/2)	5.6	80	2.25" (57mm)	cULus	165°F / 74°C	Bronze	White	RA3914	Model D
								Chrome	Silver		
								White Polyester	White		
								Bronze	White w/ Green stripe		
								Chrome	Silver w/ Green stripe		
								White Polyester	White w/ Green stripe		
Recessed Pendent (FP, F1 & F2) (Refer to Figures 2 & 3)	1/2" NPT (R1/2)	1/2" NPT (R1/2)	5.6	80	2.25" (57mm)	cULus	165°F / 74°C	Bronze	White	RA3914	Model RC1
								Chrome	Silver		
								White Polyester	White		
								Bronze	White w/ Green stripe		
								Chrome	Silver w/ Green stripe		
								White Polyester	White w/ Green stripe		
Concealed (Refer to Figures 4 & 5)	1/2" NPT (R1/2)	1/2" NPT (R1/2)	5.6	80	2.25" (57mm)	cULus	165°F / 74°C Sprinkler 135°F / 57°C Coverplate 212°F / 100°C Sprinkler 165°F / 74°C Coverplate	Bronze	White	RA3914	Model RC1
								Chrome	Silver		
								White Polyester	White		
								Bronze	White w/ Green stripe		
								Chrome	Silver w/ Green stripe		
								White Polyester	White w/ Green stripe		
Upright	1/2" NPT (R1/2)	1/2" NPT (R1/2)	5.6	80	2.25" (57mm)	cULus	165°F / 74°C	Bronze	White	RA3924	Model D
								Chrome	Silver		
								White Polyester	White		
								Bronze	White w/ Green stripe		
								Chrome	Silver w/ Green stripe		
								White Polyester	White w/ Green stripe		
HSW	1/2" NPT (R1/2)	1/2" NPT (R1/2)	5.6	80	2.63" (67mm)	cULus	165°F / 74°C	Bronze	White	RA3934	Model D
								Chrome	Silver		
								White Polyester	White		
								Bronze	White w/ Green stripe		
								Chrome	Silver w/ Green stripe		
								White Polyester	White w/ Green stripe		
Recessed HSW (FP, F1 & F2) (Refer to Figures 6 & 7)	1/2" NPT (R1/2)	1/2" NPT (R1/2)	5.6	80	2.63" (67mm)	cULus	165°F / 74°C	Bronze	White	RA3934	Model GFR2
								Chrome	Silver		
								White Polyester	White		
								Bronze	White w/ Green stripe		
								Chrome	Silver w/ Green stripe		
								White Polyester	White w/ Green stripe		

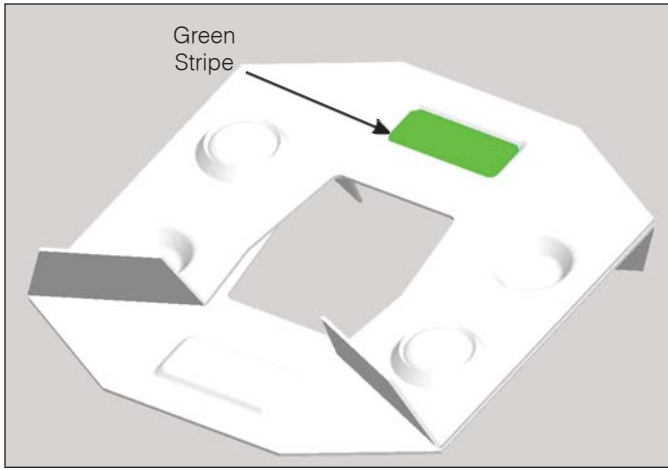


Figure 1

When installing Model KFR56-300 Sprinklers, use the installation wrench specified in the information table on page 2 of this bulletin. Any other type of wrench may damage these sprinklers.

NOTE: A leak tight 1/2" NPT (R1/2) 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.

The Model KFR56-300/ CCP Concealed Sprinkler uses the 1/2" orifice, 1/2" NPT (R1/2), 165°F (74°C) or 212°F (100°C) Model KFR56-300 Pendent Sprinkler with a threaded Model CCP cup which is factory attached to the sprinkler. The assembly is completed by the installation of the attractive, low profile, 135°F (57°C) or 165°F (74°C) rated Model CCP push on cover plate assembly. The cover plate and sprinkler cup assemblies are joined using a cover plate skirt with flexible tabs for threaded engagement. A choice of two cover plate assemblies provide either 1/2" (13mm) or 5/16" (8mm) of cover adjustment.

Do not install these sprinklers in ceilings which have positive pressure in the space above.

After a 2 5/8" (67mm) diameter hole is cut in the ceiling, the sprinkler is easily installed with the Model RC1 Wrench. A Teflon* based thread sealant should be applied to the sprinkler threads only. The Model RC1 Wrench is then used to engage the sprinkler wrenching surfaces and to install the sprinkler in the fitting. When inserting or removing the wrench from the sprinkler/cup assembly, care should be taken to prevent damage to the sprinkler. **DO NOT WRENCH ON ANY OTHER PART OF THE SPRINKLER.** The cover plate is then pushed onto the cup. Final adjustment is made by hand turning the cover plate until the skirt flange makes full contact with the ceiling. Cover plate removal requires turning in the counter clockwise direction.

After installation, inspect all sprinklers to ensure that there is a gap between the cover plate and ceiling and that the four cup slots are open and free from any air flow impediment to the space above.

*DuPont Registered Trade Mark

Concealed cover plate/cup assemblies are listed only for use with specific sprinklers. The use of any other concealed cover plate/cup assembly with the Model KFR56-300 Pendent Sprinkler or the use of the Model CCP Concealed cover plate assembly on any sprinkler with which it is not specifically listed may prevent good fire protection and will void all guarantees, warranties, listings and approvals.

Maintenance

Model KFR56-300 Series 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 fluids. Remove dust by using a soft brush or gentle vacuuming. Remove any sprinkler that 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.

Maximum Working Pressure

300 psi (20,7 bar)

100% Factory tested hydrostatically to 600 psi (41,4 bar)

Finishes ⁽¹⁾

Standard Finishes		
Sprinkler	Escutcheon	Cover plate
Bronze	Brass	Chrome White
Chrome Plated	Chrome	
Black or White Polyester	Plated	
Coated	White Painted	
Special Application Finishes		
Sprinkler	Escutcheon	Cover plate
Bright Brass ⁽³⁾	Bright Brass	Bright Brass
Black Plated	Black Plated	Satin
Black Paint ⁽²⁾	Black Paint	Off White
Off White ⁽²⁾	Off White	Black Paint
Satin Chrome	Satin Chrome	Black Plated

⁽¹⁾ Other finishes and colors are available on special order. Custom paints are semi-gloss unless specified otherwise.

Consult the factory for details on fusible element color and other details.

Ordering Information

Specify:

1. Sprinkler Model
2. Sprinkler Orientation
3. Temperature Rating
4. Sprinkler Finish⁽¹⁾
5. Escutcheon Type (Where applicable)
6. Escutcheon Finish (where applicable)
7. Cover plate Model (Where applicable)
8. Cover plate Adjustment (Where applicable)
9. Cover plate Finish

Note: When Model KFR56-300 Recessed sprinklers are ordered, the sprinklers and escutcheons are packaged separately.

Model KFR56-300 Quick Response Recessed Pendent Sprinklers

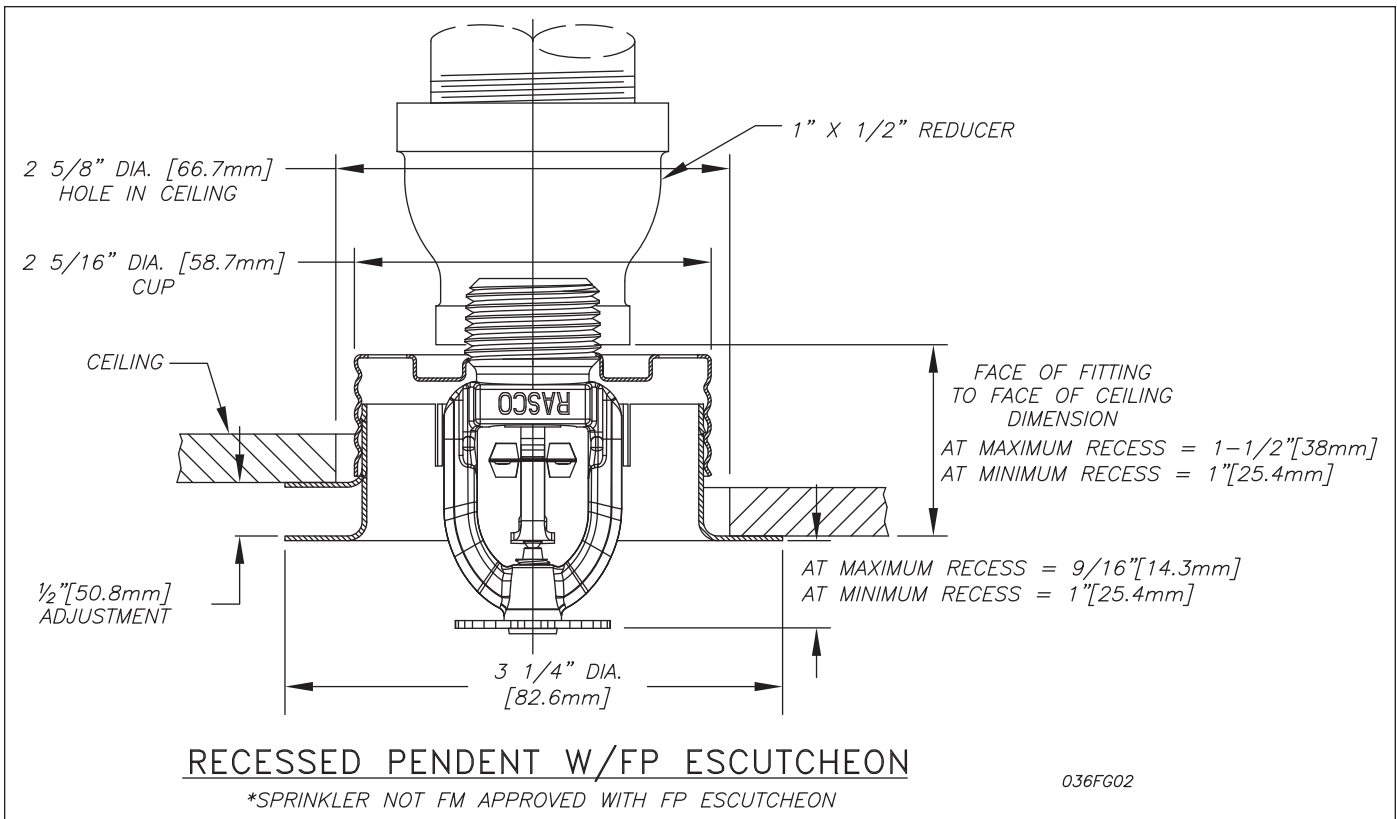


Figure 2

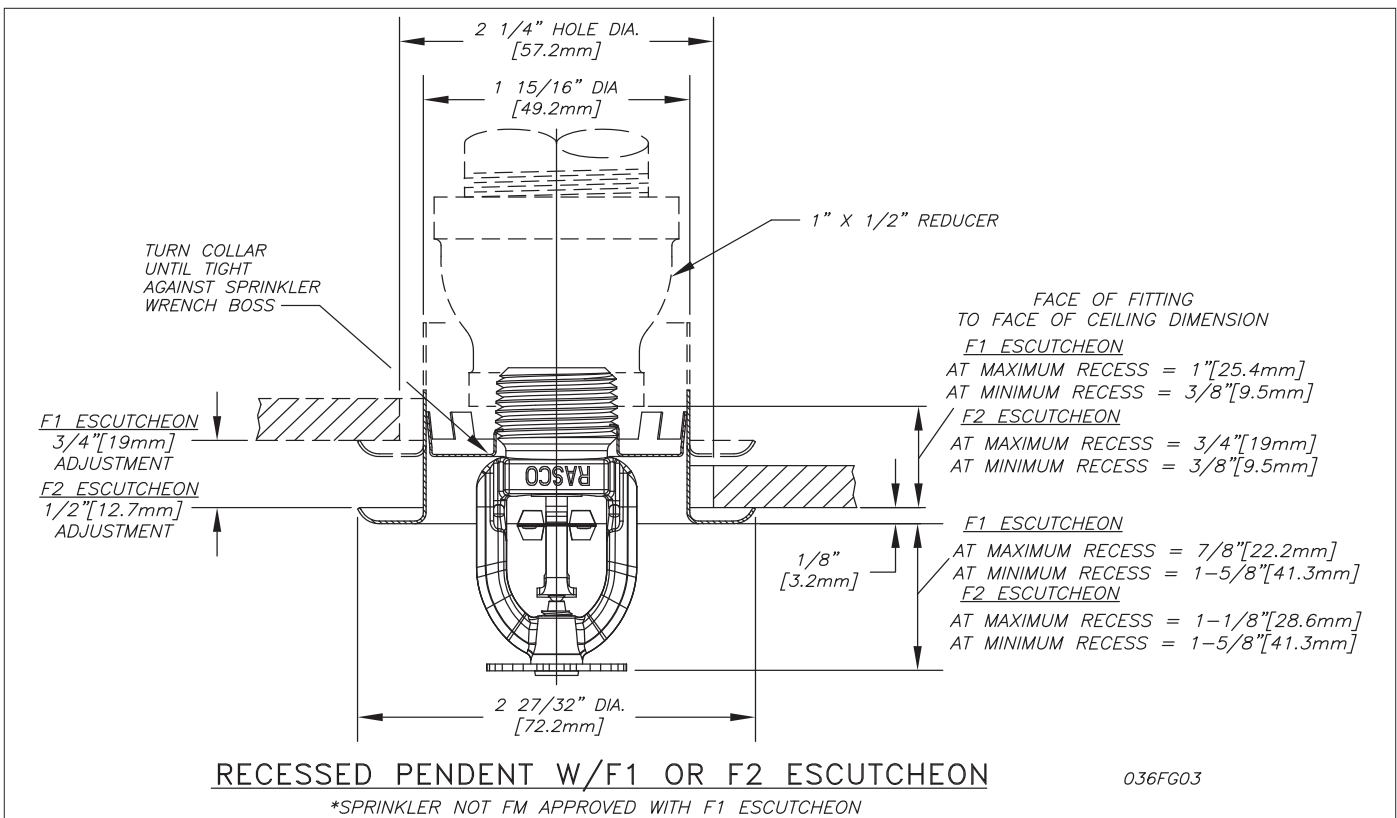


Figure 3

Model KFR56-300 Quick Response Concealed Pendent Sprinklers

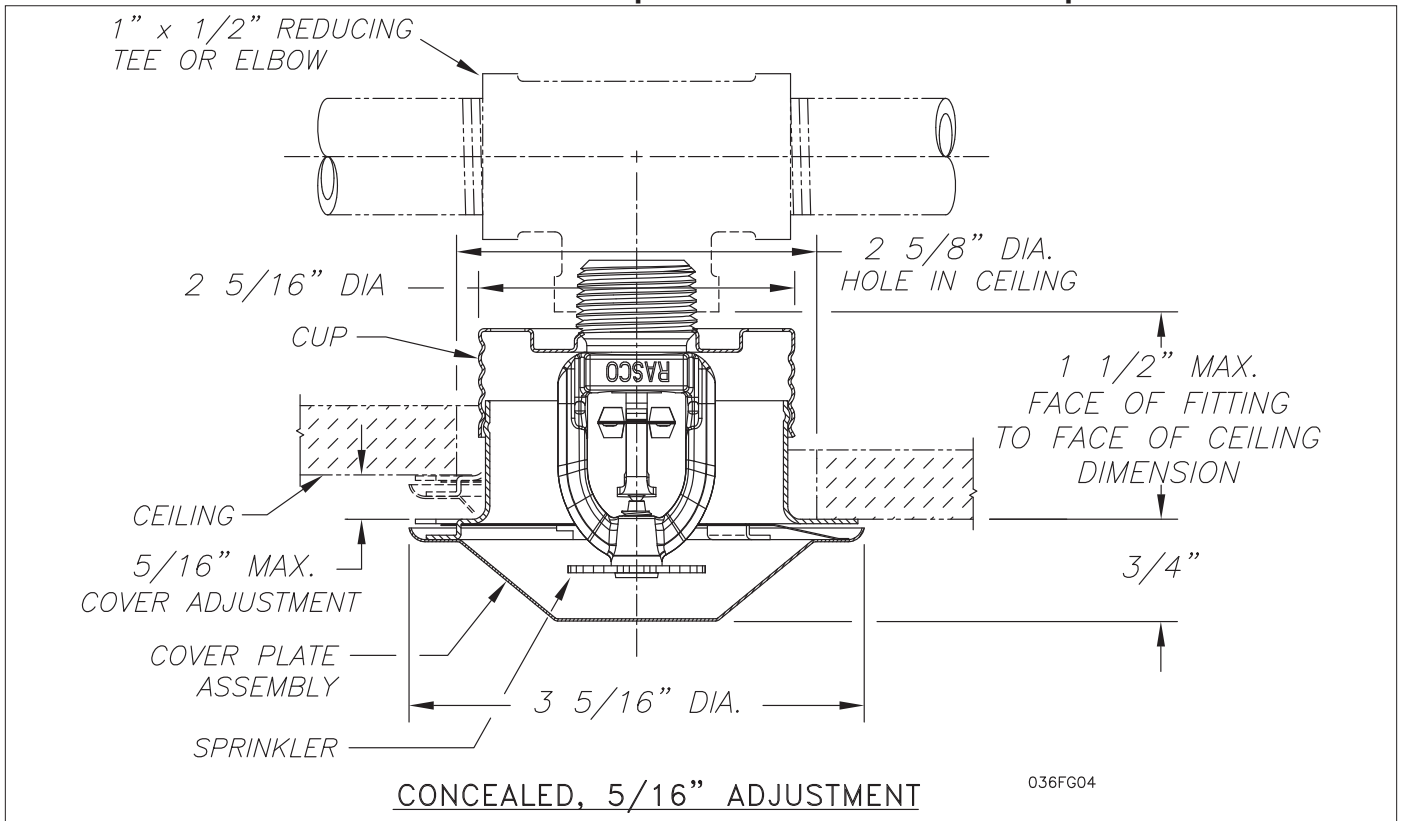


Figure 4

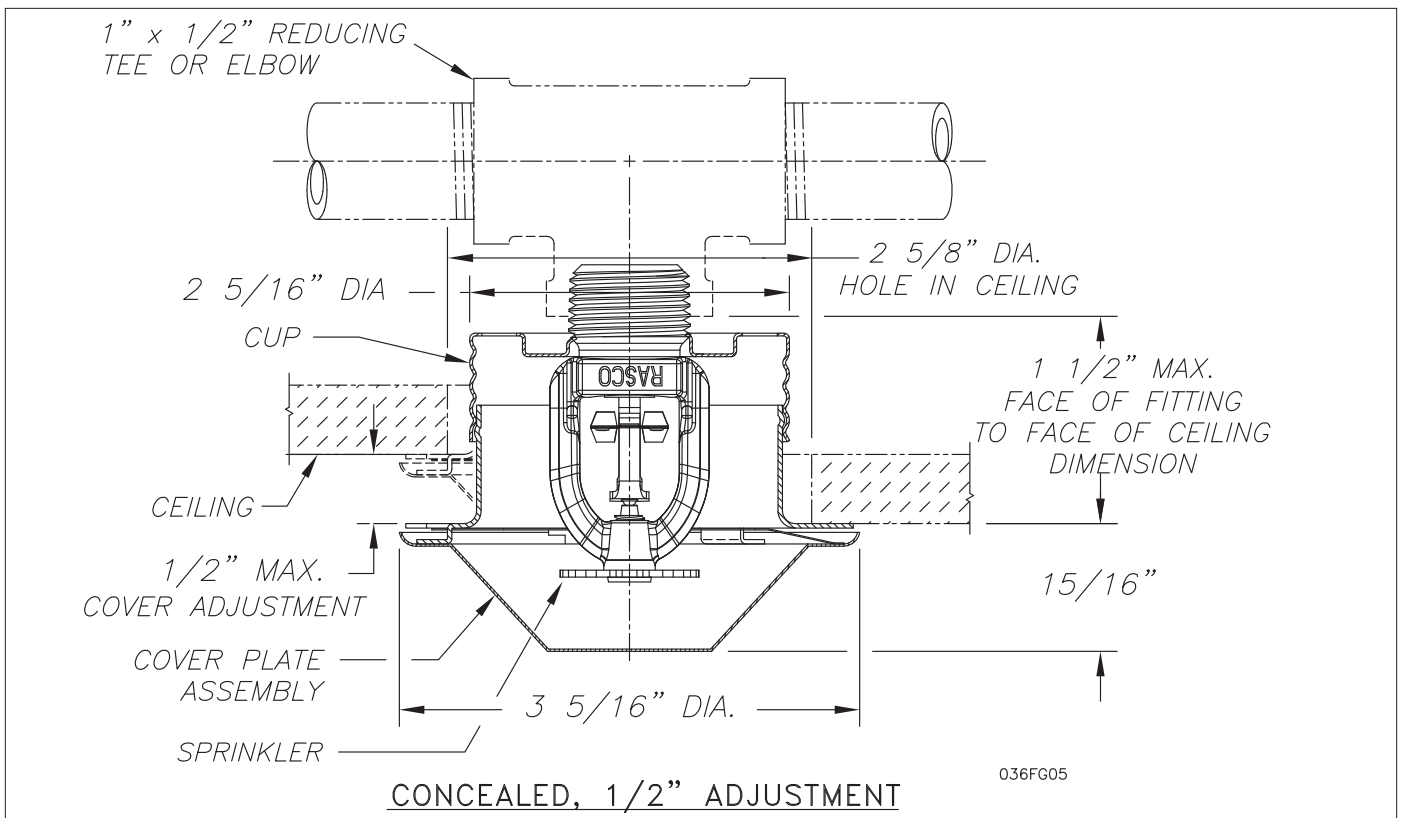


Figure 5

Model KFR56-300 Quick Response Horizontal Sidewall Sprinklers

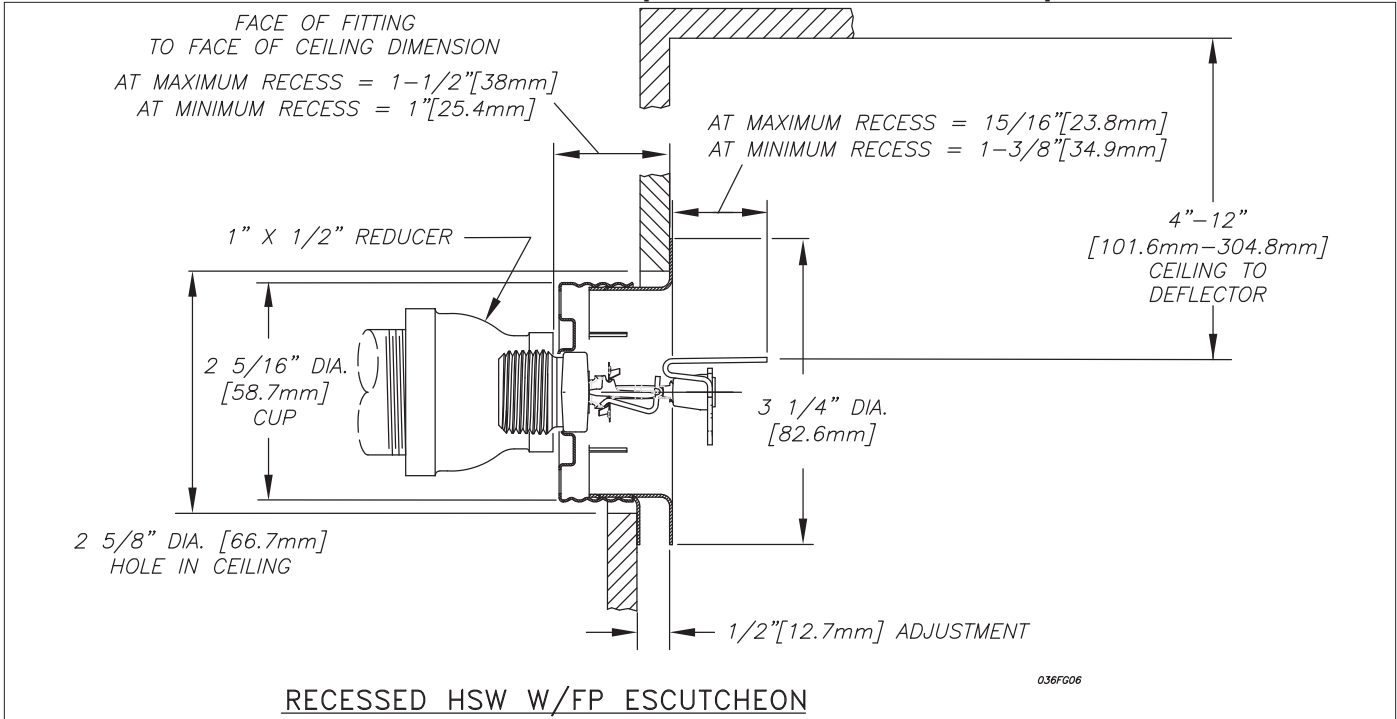


Figure 6

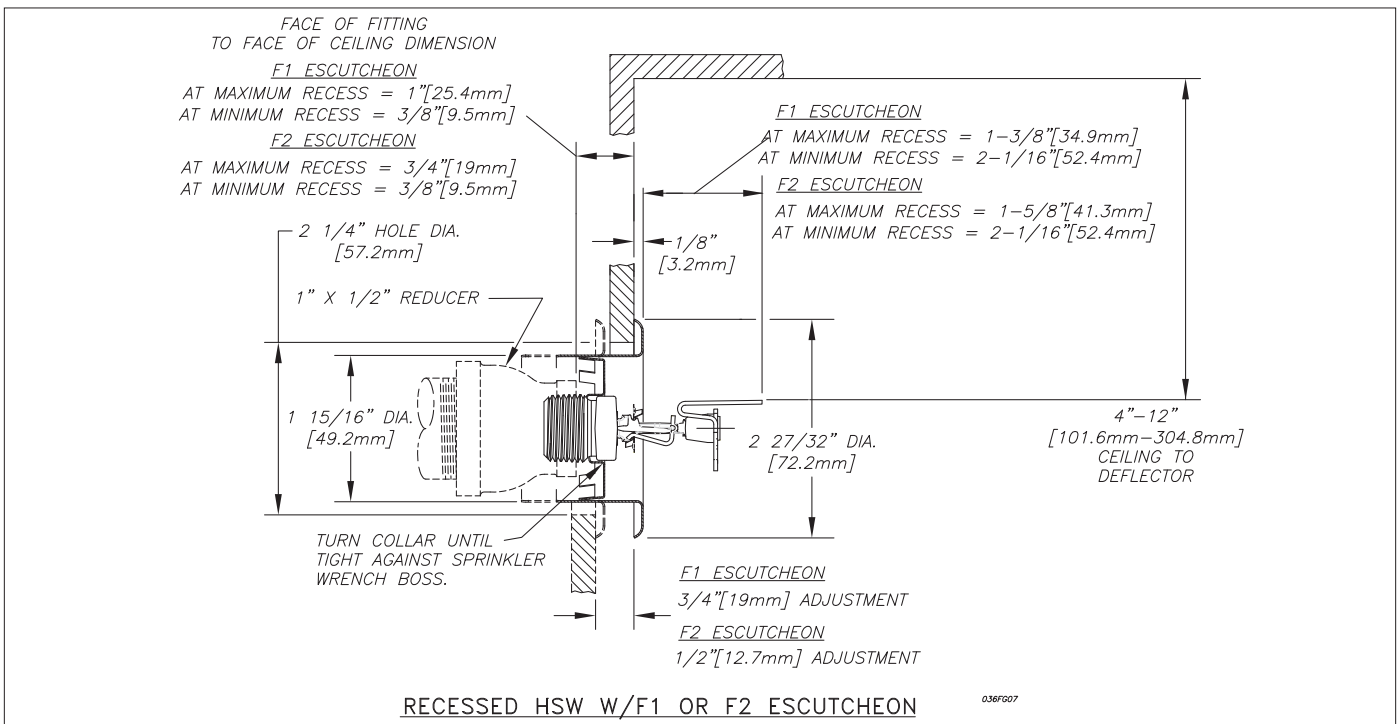


Figure 7

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

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