

# Reliable®

## Model KFR56 Sprinklers

Quick Response Standard Spray

### Model KFR56 Sprinkler Types

- Standard Upright
- Standard Pendent
- Horizontal Sidewall

### Model KFR56 Recessed Sprinkler Types

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

### Model KFR56 Concealed Sprinkler Types

- Concealed Pendent CCP

### Listing & Approvals

- Underwriters Laboratories Inc. and Certified for Canada (cULus)(All orientations).
- Factory Mutual Approvals (FM)

### UL Listing Category

- Sprinklers, Automatic & Open (VNIV)
- Quick Response Sprinkler

### Product Description

Reliable Model KFR56 Series Sprinklers are quick response sprinklers which combine the durability of a standard sprinkler with the attractive low profile of a decorative sprinkler.

The automatic sprinklers utilize a soldered link and have demonstrated response times in laboratory tests which are five to ten times faster than standard response sprinklers. This quick response enables these sprinklers to apply water to a fire much faster than standard sprinklers of the same temperature rating.

The temperature rating of the sprinkler is marked on the deflector, and can also be determined by color of the thermal link. 165°F (74°C) sprinklers will have a gray link and 212°F (100°C) sprinklers will have a white link.

### Application

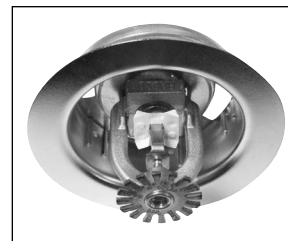
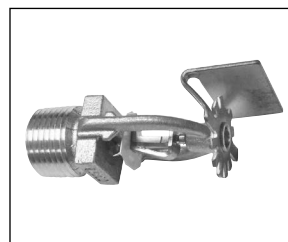
Quick response sprinklers are used in fixed fire protection systems: Wet, Dry or Preaction. Care must be exercised that the orifice size, temperature rating, deflector style and sprinkler type are in accordance with the latest published standards of the National Fire Protection Association or the approving Authority Having Jurisdiction (AHJ). Models KFR56 sprinklers are intended for installation as specified in NFPA 13 in both light and ordinary Hazard applications. Quick response sprinklers and standard response sprinklers should not be intermixed.



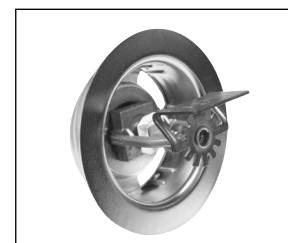
Upright



Pendent

Recessed  
Pendent/FPRecessed  
Pendent/F1/F2

Horizontal Sidewall (HSW)

Recessed  
Horizontal Sidewall F1/F2Recessed 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 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 Sprinklers. The use of any other recessed escutcheon will void all approvals and negate all warranties.

**Model KFR56 Sprinkler Information Table**

**Table A**

Orientation	Nominal Orifice	Thread Size	Nominal K Factor		Sprinkler Height	Approvals	Temperature*	Frame / Deflector Finish	Sprinkler Identification Number (SIN)	Installation Wrench
			US	Metric						
Pendent (Refer to Figure 1)	1/2" (15mm)	1/2" NPT (R1/2)	5.6	80	2.25" (57mm)	cULus, FM	165°F / 74°C	Bronze Chrome White Polyester	RA3614	Model W2
							212°F / 100°C	Bronze Chrome White Polyester		
Recessed Pendent (FP, F1 & F2) (Refer to Figures 2 & 3)	1/2" (15mm)	1/2" NPT (R1/2)	5.6	80	2.25" (57mm)	cULus, FM (F2 Escutcheon only)	165°F / 74°C	Bronze Chrome White Polyester	RA3614	Model GFR2
							212°F / 100°C	Bronze Chrome White Polyester		
Concealed (Refer to Figure 4)	1/2" (15mm)	1/2" NPT (R1/2)	5.6	80	2.25" (57mm)	cULus	165°F / 74°C Sprinkler 135°F / 57°C Coverplate	Bronze	RA3614	Model GFR2
							212°F / 100°C Sprinkler 165°F / 74°C Coverplate	Bronze		
Upright (Refer to Figure 1)	1/2" (15mm)	1/2" NPT (R1/2)	5.6	80	2.25" (57mm)	cULus, FM	165°F / 74°C	Bronze Chrome White Polyester	RA3624	Model W2
							212°F / 100°C	Bronze Chrome White Polyester		
HSW	1/2" (15mm)	1/2" NPT (R1/2)	5.6	80	2.63" (67mm)	cULus, FM	165°F / 74°C	Bronze Chrome White Polyester	RA3634	Model W2
							212°F / 100°C	Bronze Chrome White Polyester		
Recessed HSW (FP, F1 & F2) (Refer to Figures 5 & 6)	1/2" (15mm)	1/2" NPT (R1/2)	5.6	80	2.63" (67mm)	cULus, FM (F2 Escutcheon only)	165°F / 74°C	Bronze Chrome White Polyester	RA3634	Model GFR2
							212°F / 100°C	Bronze Chrome White Polyester		

\*Link color for 165°F (74°C) sprinklers is gray, link color for 212°F (100°C) sprinklers is white.

When installing Model KFR56 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/ CCP Concealed Sprinkler uses the 1/2" orifice, 1/2" NPT (R1/2), 165°F (74°C) or 212°F (100°C) Model KFR56 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.

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 GFR2 Wrench. A PTFE based thread sealant should be applied to the sprinkler threads only. The Model GFR2 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.

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 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

The Model KFR56 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 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 to minimize the potential for damage to sprinklers that would cause improper operation or non-operation.

## Maximum Working Pressure

175 psi (12 bar)

100% Factory tested hydrostatically to 500 psi (34.5 bar)

## Finishes\*

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

\*Note: Other finishes and colors are available on special order. Custom paints are semi-gloss unless specified otherwise.

## Ordering Information

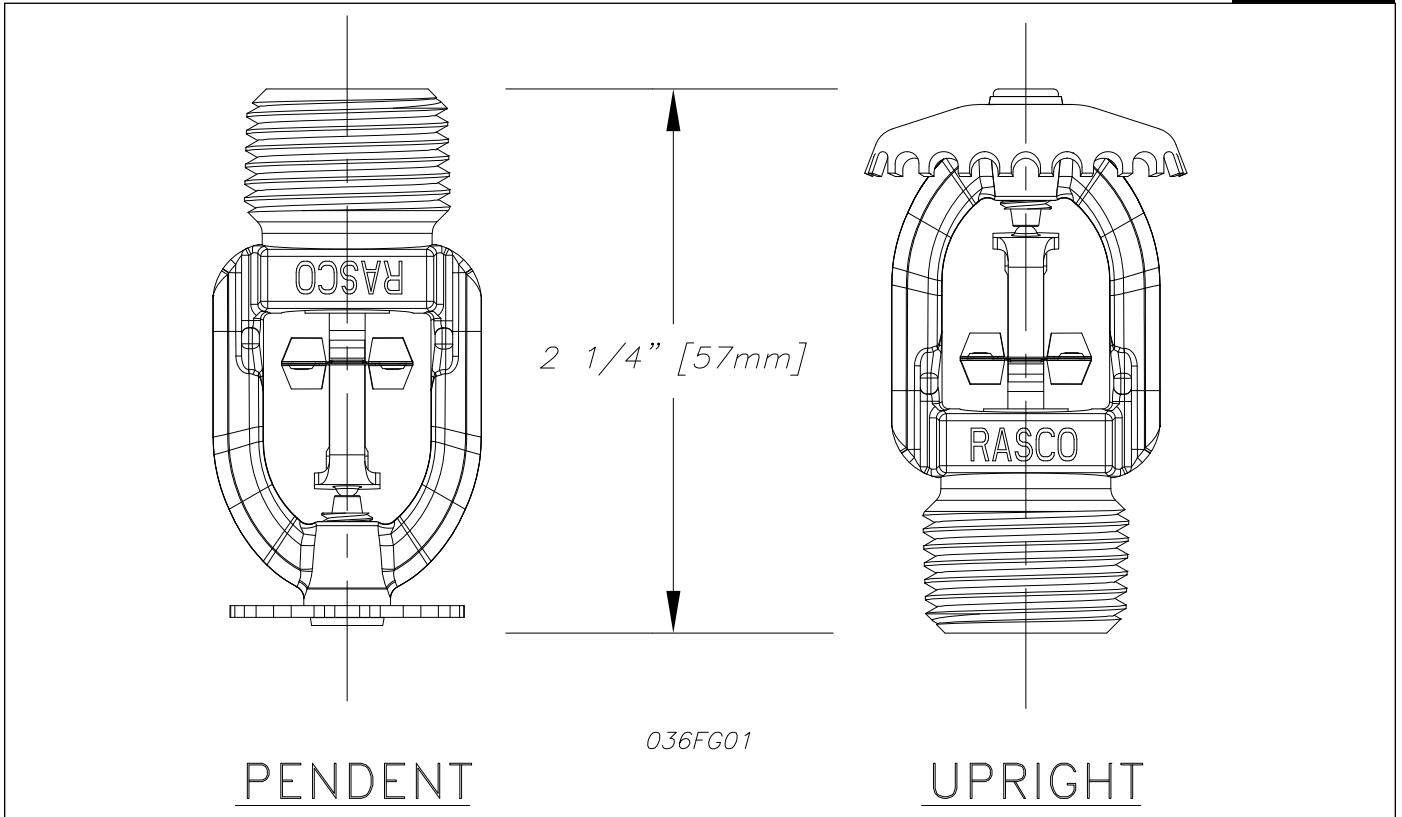
### Specify:

- Sprinkler Model
  - Upright
  - Pendent
  - Recessed Pendent (F1, F2, or FP)
  - Horizontal Sidewall\*
  - Recessed Horizontal Sidewall (F1, F2, or FP)
  - CCP Concealed
- Temperature Rating
  - 165°F (74°C)
  - 212°F (100°C)
- Sprinkler Finish (See above)
- Escutcheon or Cover Plate Finish (See above)

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

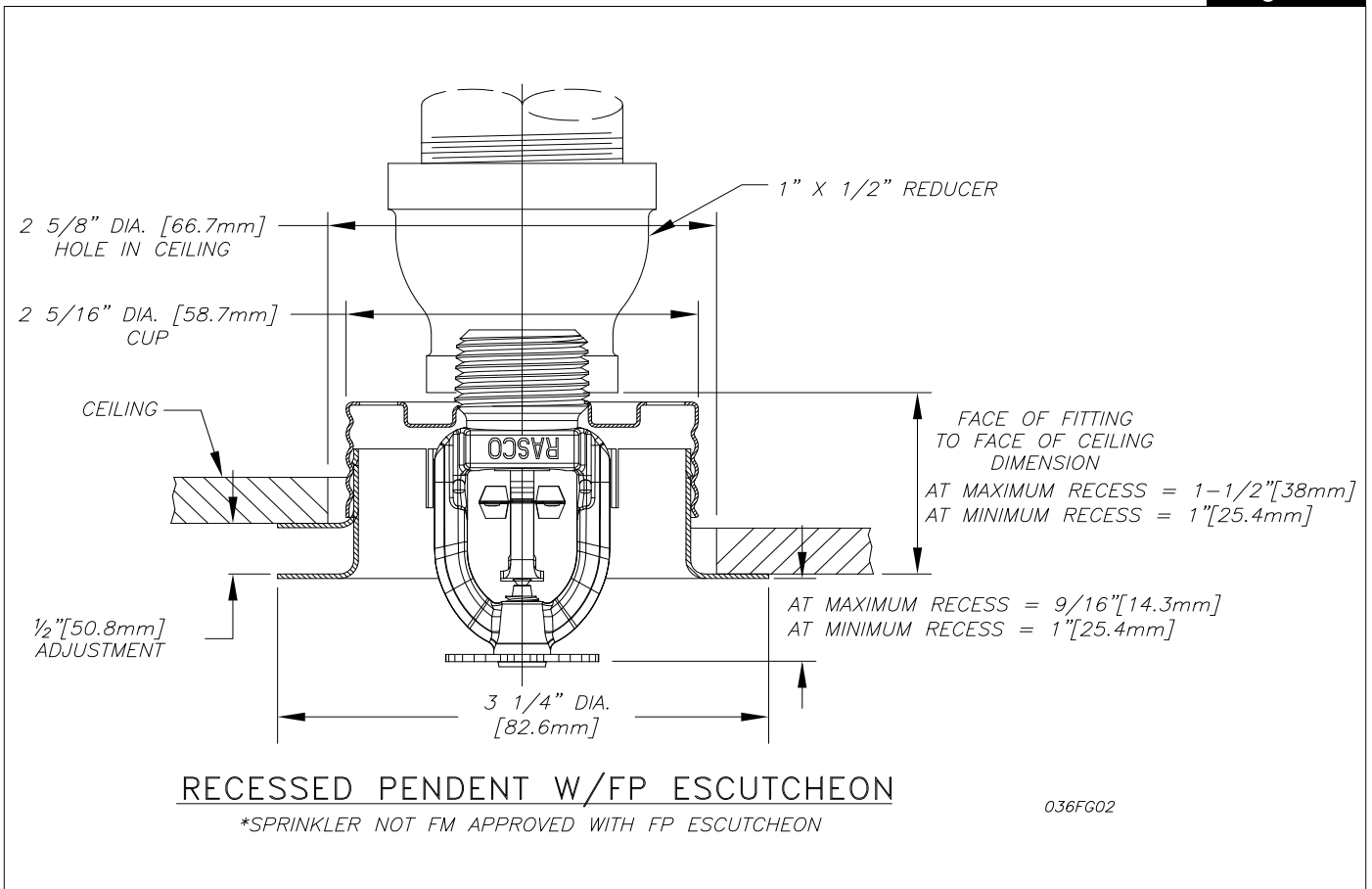
Model KFR56 Quick Response Recessed Pendent Sprinklers

Figure 1



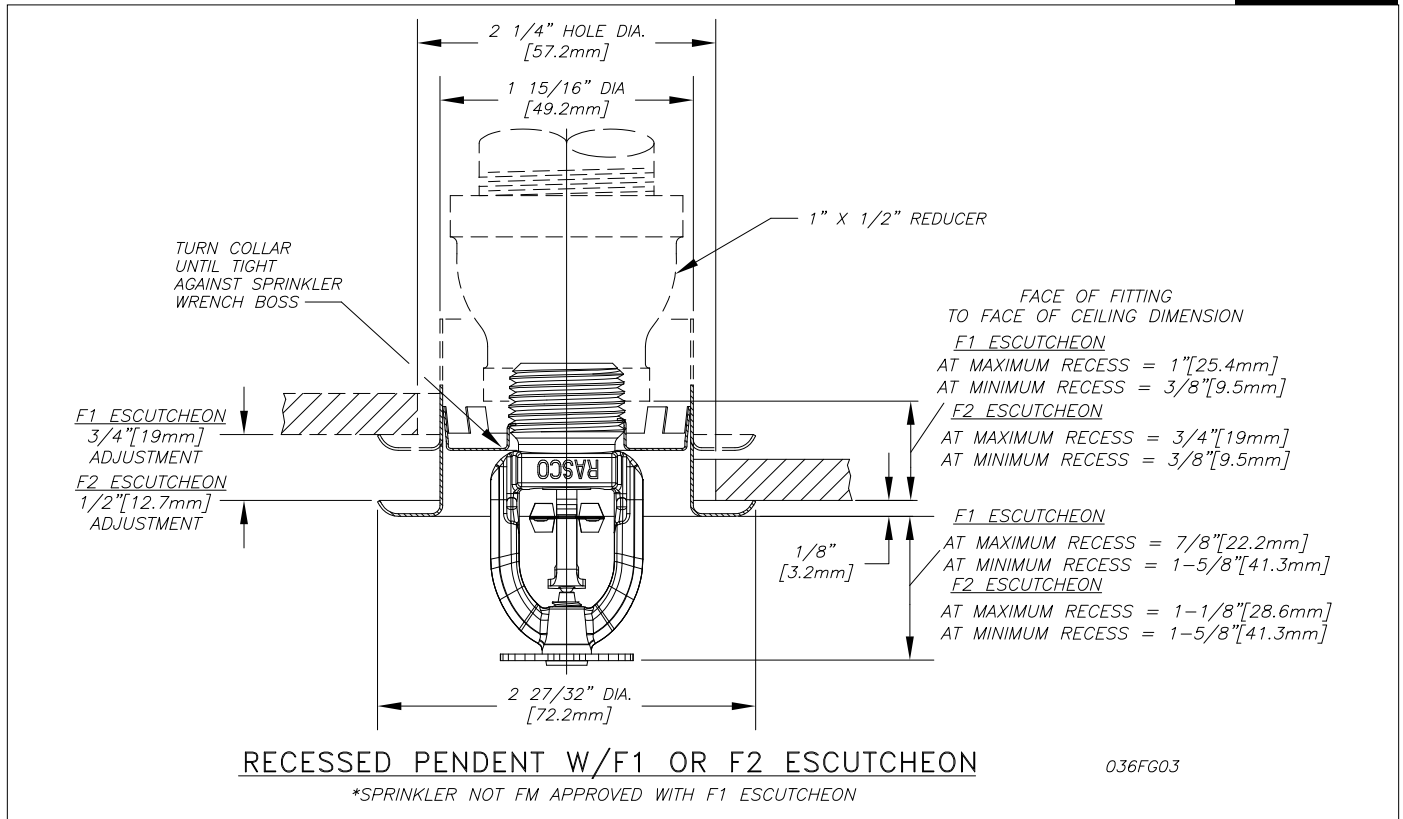
Model KFR56 Quick Response Recessed Pendent Sprinklers

Figure 2



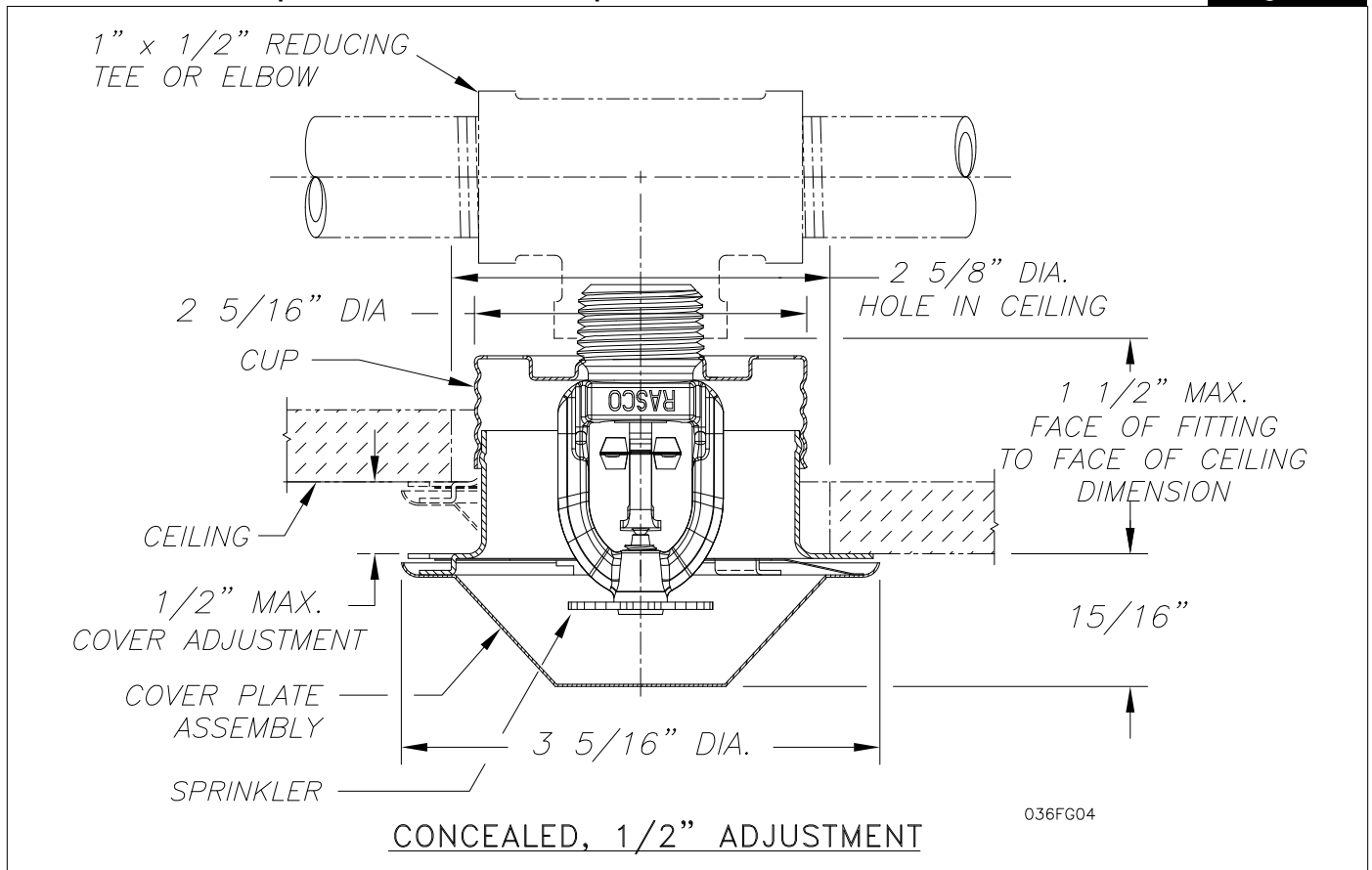
Model KFR56 Quick Response Concealed Pendent Sprinklers

Figure 3



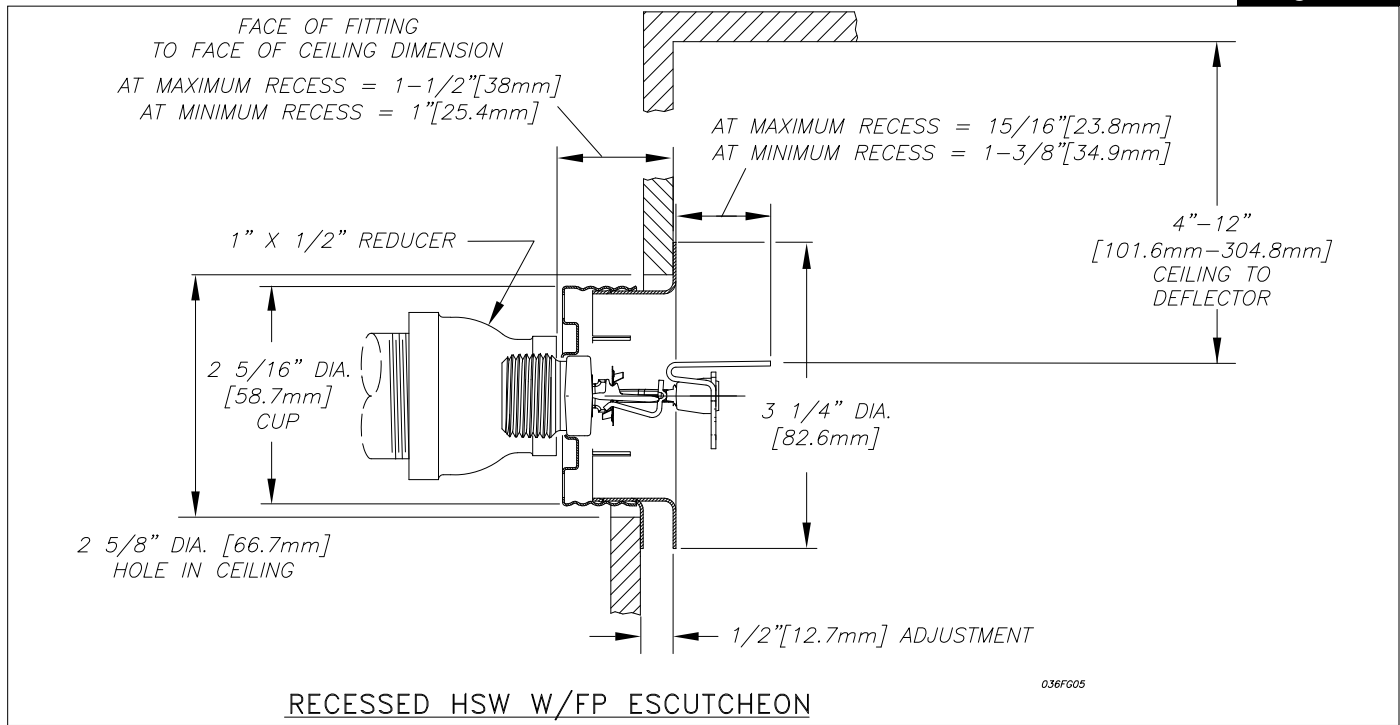
Model KFR56 Quick Response Concealed Pendent Sprinklers

Figure 4



**Model KFR56 Quick Response Horizontal Sidewall Sprinklers**

**Figure 5**



**Model KFR56 Quick Response Horizontal Sidewall Sprinklers**

**Figure 6**

