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.

Listings & Approvals

Listed by Underwriters Laboratories, Inc. and UL Certified for Canada (cULus)
- Sprinklers, Automatic and Open (VNIV)

Table A

<table>
<thead>
<tr>
<th>Sprinkler Model</th>
<th>Orientation</th>
<th>Listing or Approval</th>
<th>Max. Working Pressure psi (bar)</th>
<th>Sprinkler Identification Number (SIN)</th>
</tr>
</thead>
<tbody>
<tr>
<td>KFR56-300 Pendent</td>
<td>Pendent</td>
<td>cULus</td>
<td>300 (20.7)</td>
<td>RA3914</td>
</tr>
<tr>
<td>KFR56-300 Upright</td>
<td>Upright</td>
<td>cULus</td>
<td>300 (20.7)</td>
<td>RA3924</td>
</tr>
<tr>
<td>KFR56-300 HSW</td>
<td>HSW</td>
<td>cULus</td>
<td>300 (20.7)</td>
<td>RA3934</td>
</tr>
</tbody>
</table>

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.
Model KFR56-300 Pendent sprinkler

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 J (with guard installed)

Listings and Approvals
cULus Listed

Sprinkler Finishes
(See Table C)
Sensitivity
Quick-response
Temperature Ratings
165°F (74°C)
212°F (100°C)

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

Components
- FRAME
- WRENCH FLATS
- SEALING ASSEMBLY
- FUSIBLE LINK
- COMPRESSION SCREW
- DEFLECTOR

Dimensions
- 2 1/4" (57 mm)
- 1" (24 mm)
Model KFR56-300 Upright Sprinkler

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 J (with guard installed)

Listings and Approvals
- cULus Listed

Sprinkler Finishes
(See Table C)

Sensitivity
- Quick-response

Temperature Ratings
- 165°F (74°C)
- 212°F (100°C)

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

Sprinkler Wrench Model W2 Model J (with guard installed)

Listings and Approvals cULus Listed

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 J (with guard installed)

### Listings and Approvals
- cULus Listed

### Sprinkler Finishes
- (See Table C)

### Sensitivity
- Quick-response

### Temperature Ratings
- 165°F (74°C)
- 212°F (100°C)

### Recessed Escutcheons
- Model F1 escutcheon
- Model FP escutcheon

### Guards
- F-7 Guard

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### Model KFR56-300 HSW Sprinkler Components and Dimensions

**Figure 3**

![Model KFR56-300 HSW Sprinkler Components and Dimensions](image)

**Components**
- Deflector
- Compression Screw
- Fusible Link
- Sealing Assembly
- Wrench Flats
- Frame

**Dimensions**
- 1 1/4" (32 mm)
- 2 11/16" (68 mm)
- 5/8" (16 mm)
**Recessed Escutcheon Dimensions**

<table>
<thead>
<tr>
<th>Type</th>
<th>Adjustment Inch (mm)</th>
<th>Maximum Face of Fitting to Ceiling Inch (mm)</th>
<th>Minimum Face of Fitting to Ceiling Inch (mm)</th>
<th>Maximum Deflector Distance Below Ceiling Inch (mm)</th>
<th>Minimum Deflector Distance Below Ceiling Inch (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>F1</td>
<td>3/4 (19)</td>
<td>7/8 (24)</td>
<td>1/8 (3)</td>
<td>1-3/4 (44)</td>
<td>1 (25)</td>
</tr>
<tr>
<td>F2</td>
<td>1/2 (12)</td>
<td>5/8 (16)</td>
<td>1/8 (3)</td>
<td>1-3/4 (44)</td>
<td>1-1/4 (32)</td>
</tr>
<tr>
<td>FP</td>
<td>1/2 (12)</td>
<td>1-1/2 (38)</td>
<td>1 (25)</td>
<td>1 (25)</td>
<td>1/2 (12)</td>
</tr>
<tr>
<td>CCP</td>
<td>1/2 (12)</td>
<td>1-1/2 (38)</td>
<td>1 (25)</td>
<td>1 (25)</td>
<td>1/2 (12)</td>
</tr>
</tbody>
</table>

*Note: Face of fitting to ceiling dimensions are based on nominal thread make up. Verify dimensions based on fitting and thread sealing method prior to installation.*

**Recessed Escutcheon and Conical Concealed Cover Plate Diagrams**

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**F1 RECESSED ESCUTCHEON INSTALLATION**

- 2 1/4" (57 mm) DIA.
- 1 1/2" (38 mm) max. face of fitting to face of ceiling
- 1 3/4" (44 mm) minimum recess
- 2 7/8" (72 mm) DIA. maximum recess
- 2 5/8" (67 mm) DIA.
- 1 1/4" (32 mm) max. face of fitting to face of ceiling
- 3 5/16" (84 mm) DIA.

**F2 RECESSED ESCUTCHEON INSTALLATION**

- 2 1/4" (57 mm) DIA.
- 1 1/2" (38 mm) max. face of fitting to face of ceiling
- 1 3/4" (44 mm) minimum recess
- 2 7/8" (72 mm) DIA. maximum recess
- 2 5/8" (67 mm) DIA.
- 1 1/4" (32 mm) max. face of fitting to face of ceiling

**CCP COVER PLATE INSTALLATION**

- 3 5/16" (84 mm) DIA.
- 15/16" (24 mm)

**FP RECESSED ESCUTCHEON INSTALLATION**

- 3 3/16" (81 mm) DIA.
- 1 3/4" (32 mm) max. face of fitting to face of ceiling
- 1/2" (13 mm)

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July 2019
www.reliablesprinkler.com
Model KFR56-300 HSW Recessed Escutcheon

F1 RECESSED ESCUTCHEON INSTALLATION

F2 RECESSED ESCUTCHEON INSTALLATION

FP RECESSED ESCUTCHEON INSTALLATION
Sprinklers, Escutcheons, and Cover Plate Finishes

<table>
<thead>
<tr>
<th>Standard Finishes</th>
<th>Special Application Finishes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sprinkler</td>
<td>F1, F2, and FP(2) Escutcheons</td>
</tr>
<tr>
<td>Bronze</td>
<td>Brass</td>
</tr>
<tr>
<td>Chrome Plated</td>
<td>Chrome Plated</td>
</tr>
<tr>
<td>White Polyester</td>
<td>White Polyester</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Wrench</th>
<th>Model W2 (upright, pendent, &amp; HSW)</th>
<th>Model W1 (recessed pendent &amp; HSW, CCP)</th>
<th>Model J (with guard installed)</th>
</tr>
</thead>
</table>

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 R³/₄)
- 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)
- J (with guard installed)