



Model J112 Stainless Steel Series Sprinklers

Extended Coverage Sprinklers
for Light Hazard and Ordinary Hazard

cULus Listed
K11.2 (160 metric)

Product Description

Model J112SS series sprinklers are cULus Listed extended coverage spray sprinklers intended for installation in accordance with NFPA 13. Model J112SS sprinklers have a frame, deflector, and cap made of Type 316 Stainless Steel. Coverage areas up to 400 ft² (37 m²) per sprinkler with a maximum spacing of up to 20 ft by 20 ft (6.1 m by 6.1 m) are permitted for both Light Hazard and Ordinary Hazard occupancies. Listed flows and pressures for each hazard classification and sprinkler spacing are provided in this Bulletin. The Model J112SS is cULus Listed as quick-response sprinklers for Light Hazard occupancies. When used in the Ordinary Hazard occupancies, Model J112SS series sprinklers are cULus Listed as quick-response for spacings up to 14 ft by 14 ft (4.3 m by 4.3 m) and standard-response for other listed spacings up to 20 ft by 20 ft (6.1 m by 6.1 m).

Model J112SS Pendent and J112SS Upright sprinklers use a glass bulb operating element and are cULus Listed as Corrosion Resistant Sprinklers. Model J112SS Pendent sprinklers are cULus Listed for use with the Model FP recessed escutcheon, which provides up to ½ inch (13 mm) of adjustment. In addition, for Ordinary Hazard occupancies, the Model J112SS Pendent sprinklers are cULus Listed for use with the Model F1 recessed escutcheon that provides up to ¾ inch (19 mm) of adjustment. Both escutcheons are manufactured from Type 316 stainless steel alloy.

Application

Model J112SS series sprinklers are intended for installation in Light Hazard and Ordinary Hazard occupancies in accordance with NFPA 13. The sprinklers must be installed in accordance with the requirements of NFPA 13 for extended coverage spray sprinklers and the requirements identified in this Bulletin. In addition to the installation requirements of NFPA 13, cULus Listed Specific Application Criteria for installation under concrete tee construction is provided in this Bulletin.

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 J112SS Pendent



Model J112SS Upright



F1 Recessed Escutcheon



FP Recessed Escutcheon

Model J112SS Sprinkler Summary

Table A

Model	Orientation	Sprinkler Identification Number (SIN)
J112SS	Pendent	R7816
J112SS	Upright	R7826

Model J112SS Pendent Sprinkler

SIN R7816

Technical Specifications

Style: Extended Coverage Pendent
Threads: 3/4" NPT or ISO 7-1R3/4
Nominal K-Factor: 11.2 (160 metric)
Max. Working Pressure: 175 psi (12 bar)
Min. Spacing: 8 ft. (2.4 m)

Material Specifications

Thermal Sensor: 3mm Glass Bulb
Cap: Type 316 stainless steel
Frame: Type 316L stainless steel
Sealing Washer: Beryllium-nickel alloy gold plated per MIL-G-45204, Type 3, Class 2 w/ PTFE tape on both sides.
Load Screw: Type 316 stainless steel
Kick Spring: Type 302 stainless steel
Deflector: Type 316 stainless steel

Sprinkler Wrench

Model J1
 Model RJ (recessed)

Finishes

None
 White Polyester
 Black Polyester
 Custom Color Polyester

Sensitivity

(See Table B)

Temperature Rating

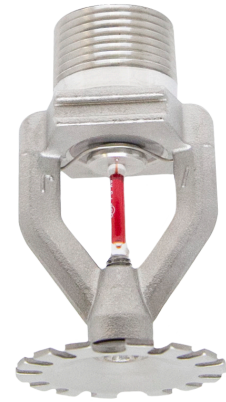
155°F (68°C)
 200°F (93°C)
 286°F (141°C)

Recessed Escutcheons

F1-3/4" (19mm) adjustment (Ordinary Hazard only)
 FP-1/2" (13mm) adjustment

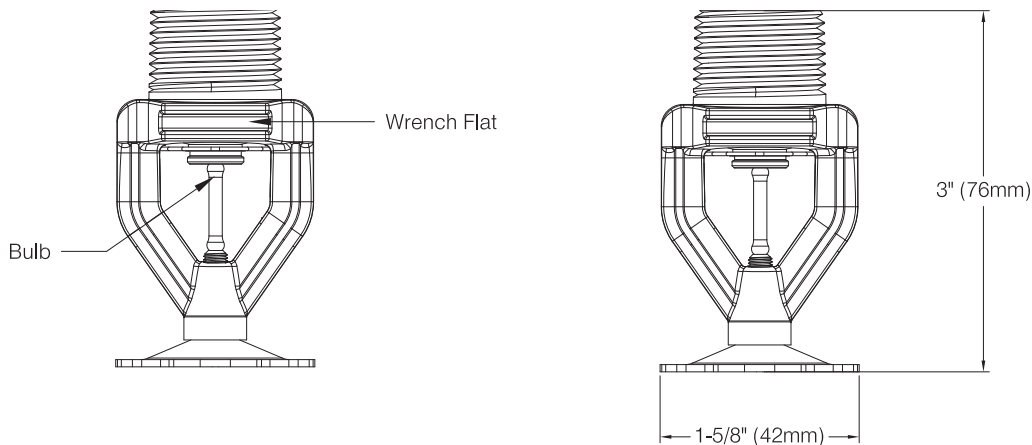
Listings and Approvals

cULus Listed for Light and Ordinary Hazard
 cULus Listed as Corrosion Resistant



Model J112SS Pendent Sprinkler Components

Figure 1



Listed Design Criteria and Sensitivity

Table B

Max. Spacing ft. x ft. (m x m)	Light Hazard		Ordinary Hazard Group 1		Ordinary Hazard Group 2	
	Flow gpm (l/m)	Pressure psi (bar)	Flow gpm (l/m)	Pressure psi (bar)	Flow gpm (l/m)	Pressure psi (bar)
12 x 12 (3.7 x 3.7)	30 (114) QR	7.2 (0.50) QR	30 (114) QR	7.2 (0.50) QR	39 (148) QR	12.1 (0.8) QR
14 x 14 (4.3 x 4.3)	30 (114) QR	7.2 (0.50) QR	30 (114) QR	7.2 (0.50) QR	39 (148) QR	12.1 (0.8) QR
16 x 16 (4.9 x 4.9)	30 (114) QR	7.2 (0.50) QR	39 (148) SR	12.1 (0.8) SR	51 (193) SR	20.7 (1.4) SR
18 x 18 (5.5 x 5.5)	33 (125) QR	8.7 (0.60) QR	49 (186) SR	19.1 (1.3) SR	65 (246) SR	33.7 (2.3) SR
20 x 20 (6.1 x 6.1)	40 (152) QR	12.8 (0.88) QR	60 (227) SR	28.7 (2.0) SR	80 (303) SR	51.0 (3.5) SR

QR = Quick-response
 SR = Standard-response

Model J112SS Upright Sprinkler

SIN R7826

Technical Specifications

Style: Extended Coverage Upright
Threads: 3/4" NPT or ISO 7-1 R3/4
Nominal K-Factor: 11.2 (160 metric)
Max. Working Pressure: 175 psi (12 bar)
Min. Spacing: 8 ft. (2.4 m)

Material Specifications

Thermal Sensor: 3mm Glass Bulb
Cap: Type 316 stainless steel
Frame: Type 316L stainless steel
Sealing Washer: Beryllium-nickel alloy gold plated per MIL-G-45204, Type 3, Class 2 w/ PTFE tape on both sides.
Load Screw: Type 316 stainless steel
Kick Spring: Type 302 stainless steel
Deflector: Type 316 stainless steel

Finishes

None
 White Polyester
 Black Polyester
 Custom Color Polyester

Sensitivity

(See Table C)

Temperature Rating

155°F (68°C)
 200°F (93°C)
 286°F (141°C)

Listings and Approvals

cULus Listed for Light and Ordinary Hazard
 cULus Listed as Corrosion Resistant

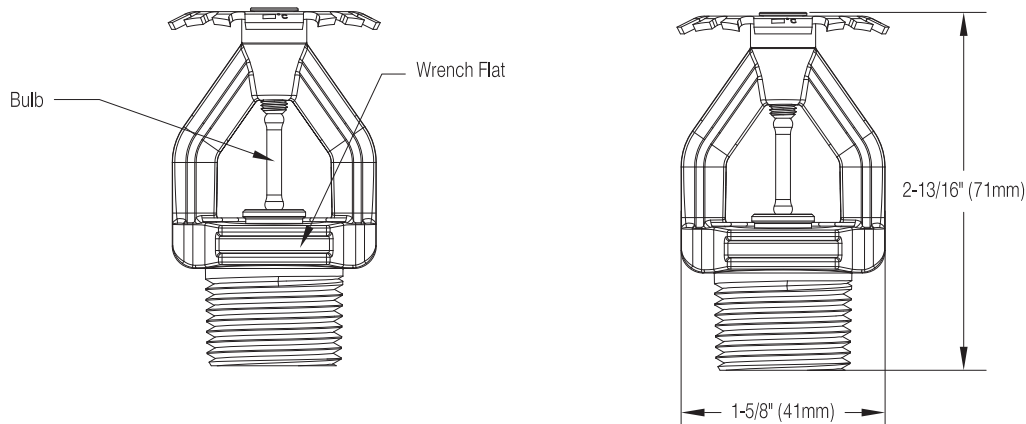


Sprinkler Wrench

Model J1

Model J112SS Upright Sprinkler Components

Figure 2



Listed Design Criteria and Sensitivity

Table C

Max. Spacing ft. x ft. (m x m)	Light Hazard		Ordinary Hazard Group 1		Ordinary Hazard Group 2	
	Flow gpm (l/m)	Pressure psi (bar)	Flow gpm (l/m)	Pressure psi (bar)	Flow gpm (l/m)	Pressure psi (bar)
12 x 12 (3.7 x 3.7)	30 (114) QR	7.2 (0.50) QR	30 (114) QR	7.2 (0.50) QR	39 (148) QR	12.1 (0.8) QR
14 x 14 (4.3 x 4.3)	30 (114) QR	7.2 (0.50) QR	30 (114) QR	7.2 (0.50) QR	39 (148) QR	12.1 (0.8) QR
16 x 16 (4.9 x 4.9)	30 (114) QR	7.2 (0.50) QR	39 (148) SR	12.1 (0.8) SR	51 (193) SR	20.7 (1.4) SR
18 x 18 (5.5 x 5.5)	33 (125) QR	8.7 (0.60) QR	49 (186) SR	19.1 (1.3) SR	65 (246) SR	33.7 (2.3) SR
20 x 20 (6.1 x 6.1)	40 (152) QR	12.8 (0.88) QR	60 (227) SR	28.7 (2.0) SR	80 (303) SR	51.0 (3.5) SR

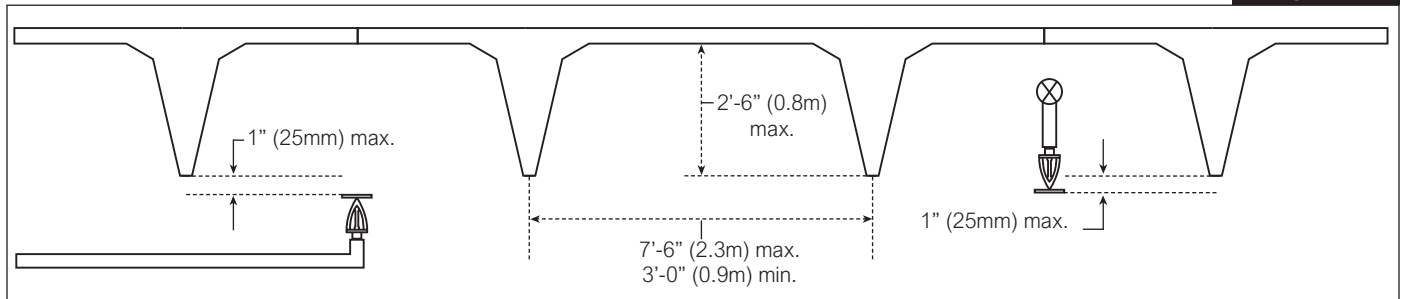
QR = Quick-response
 SR = Standard-response

The Model J112SS pendent and upright sprinklers are cULus Listed for installation under concrete tee construction in accordance with the following specific application criteria:

- Max. Tee Depth: 2'- 6" (0.8m)
- Max. Tee Stem Spacing: 7'- 6" (2.3m)
- Min. Tee Stem Spacing: 3'- 0" (0.9m)
- Max. Tee Length: 32'- 0" (9.8m) or non-combustible baffles not less than the depth of the tees must be installed so that the longitudinal space between baffles does not exceed 32ft (9.8m) in length.
- Max. Deflector distance below Tee: 1" (25mm)
- Comply with obstructions to the Sprinkler Discharge Pattern Development requirements of the NFPA13 where deflector is located above bottom of tee.

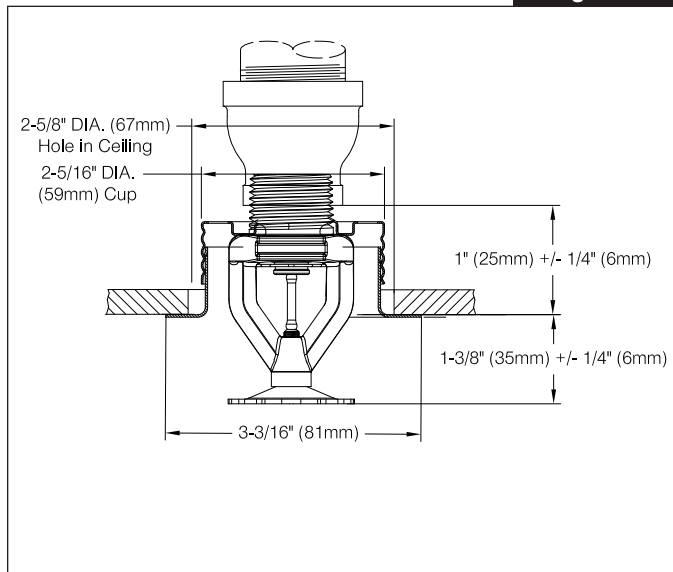
Application and Installation for Use Under Concrete Tee

Figure 3



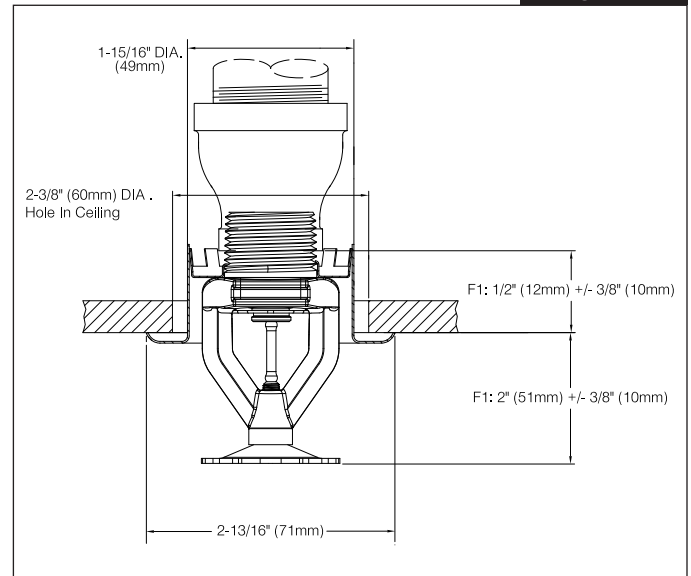
Model FP Escutcheon Installation Dimensions

Figure 4



Model F1 Escutcheon Installation Dimensions

Figure 5



Note: The Model FP or F1 may be used for ordinary hazard occupancies. For light hazard occupancies, the Model FP recessed escutcheon must be used. Model J112SS sprinklers with Model F1 recessed escutcheon are not listed for use in light hazard occupancies.

Installation

Glass bulb sprinklers have orange bulb protectors 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.

Model J112SS series sprinklers must be installed with the Reliable sprinkler installation wrench identified in this Bulletin. Any other wrench may damage the sprinkler. Recommended installation torque is 14 to 20 lb.ft (19 to 27 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.

Recessed pendent sprinklers are to be installed as shown in Fig. 4 or Fig 5., as applicable to the specific model being installed. Model J112SS series recessed pendent sprinklers may only be installed with the Reliable Model F1 or Model FP recessed escutcheon. The use of any other recessed escutcheon will void all approvals and negate all warranties. The Reliable Model FP escutcheon may not be used in ceilings having positive pressure with respect to the space below. Ensure that the openings in the Model FP escutcheon/can assembly are unobstructed following installation.

Maintenance

Model J112SS series sprinklers should be inspected 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 gentle vacuuming. Replace 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 until used to minimize the potential for damage to sprinklers that would cause improper operation or non-operation.

Model J1 Wrench



Model RJ Wrench



Listings and Approvals

Listed by Underwriters Laboratories, Inc. and certified by Underwriters Laboratories of Canada (cULus)

UL Listing Category

Sprinklers, Automatic and Open Extended Coverage Sprinklers
UL Guide Number – VNIV.

Ordering Information

Specify:

1. Sprinkler Model: [J112SS Pendent] [J112SS Upright]
2. Temperature Rating: [155°F (68°C)] [200°F (93°C)]
[286°F (141°C)]
3. Finish: [None] [White Polyester] [Black Polyester]
[Custom Color Polyester]
4. Escutcheon: (Pendent Only)
Model F1 (Ordinary Hazard Only)
Model FP