Reliable

Model J112 Stainless Steel Series Sprinklers Extended Coverage Sprinklers for Light Hazard and Ordinary Hazard

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 F2 and Model FP recessed escutcheons, which provide 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.

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.





Model J112SS Pendent



F1/F2 Recessed Escutcheon



FP Recessed Escutcheon

| Model J112SS Sprinkler Summary Table A | | | | | |
|--|-------------|---------------------------------------|--|--|--|
| Model | Orientation | Sprinkler Identification Number (SIN) | | | |
| J112SS | Pendent | R7816 | | | |
| J112SS | Upright | R7826 | | | |

cULus Listed K11.2 (160 metric)

Model J112SS Pendent Sprinkler

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 Cup: Type 316 stainless steel Frame: Type 316L stainless steel Sealing Assembly: Nickel Alloy with PTFE tape Load Screw: Type 316 stainless steel Kick Spring: Type 302 stainless steel Deflector: Type 316 stainless steel

Finishes None

Sensitivity (See Table B)

Temperature Rating 155°F (68°C)

200°F (93°C)

Recessed Escutcheons

F1-3/4" (19mm) adjustment (Ordinary Hazard only) F2-1/2" (13mm) adjustment FP-1/2" (13mm) adjustment

Sprinkler Wrench Model J1 Model RJ (recessed)

Listings and Approvals

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

Model J112SS Pendent Sprinkler Components



QR



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

SR

SR

SR

QR = Quick-response

SR = Standard-response

(6.1 x 6.1)





QR

SR



Model J112SS Upright Sprinkler

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 Cup: Type 316 stainless steel Frame: Type 316L stainless steel Sealing Assembly: Nickel Alloy with PTFE tape Load Screw: Type 316 stainless steel Kick Spring: Type 302 stainless steel Deflector: Type 316 stainless steel

Finishes None

Sensitivity (See Table C)

Temperature Rating 155°F (68°C) 200°F (93°C)

Sprinkler Wrench Model J1

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

Figure 2

Cars

SIN R7826

Model J112SS Upright Sprinkler Components

Bulb



| Listed Design Criteria and Sensitivity Table C | | | | | | 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 | 30 (114) | 7.2 (0.50) | 30 (114) | 7.2 (0.50) | 39 (148) | 12.1 (0.8) |
| (3.7 x 3.7) | QR | QR | QR | QR | QR | QR |
| 14 x 14 | 30 (114) | 7.2 (0.50) | 30 (114) | 7.2 (0.50) | 39 (148) | 12.1 (0.8) |
| (4.3 x 4.3) | QR | QR | QR | QR | QR | QR |
| 16 x 16 | 30 (114) | 7.2 (0.50) | 39 (148) | 12.1 (0.8) | 51 (193) | 20.7 (1.4) |
| (4.9 x 4.9) | QR | QR | SR | SR | SR | SR |
| 18 x 18 | 33 (125) | 8.7 (0.60) | 49 (186) | 19.1 (1.3) | 65 (246) | 33.7 (2.3) |
| (5.5 x 5.5) | QR | QR | SR | SR | SR | SR |
| 20 x 20 | 40 (152) | 12.8 (0.88) | 60 (227) | 28.7 (2.0) | 80 (303) | 51.0 (3.5) |
| (6.1 x 6.1) | QR | QR | SR | SR | SR | SR |

QR = Quick-response

SR = Standard-response



Model J112SS Specific Application Criteria for Use Under Concrete Tee Construction

cULus Listed

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 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.







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, Model F2, 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 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)]
- 3. Escutcheon: (Pendent Only)
 - Model F1 (Ordinary Hazard Only) Model F2 Model FP

