

Reliable®

Model JL112 & J112 - Pendent
ECLH - Extended Coverage Light Hazard
ECOH - Extended Coverage Ordinary Hazard
ECOH - Extended Coverage Ordinary
Hazard - Quick Response

Model JL112 & J112 ECLH/ECOH Pendent & Recessed Pendent (SIN R7216 – Link and RA7216 – Bulb)

- **Quick Response for Light Hazard** (16' x 16' (4.9m x 4.9m), 18' x 18' (5.5m x 5.5m) and 20' x 20' (6.1m x 6.1m) spacing)
- **Quick Response for Ordinary Hazard** (12' x 12' (3.7m x 3.7m) and 14' x 14' (4.3m x 4.3m) spacing)
- **Standard Response for Ordinary Hazard** (16' x 16' (4.9m x 4.9m), 18' x 18' (5.5m x 5.5m) and 20' x 20' (6.1m x 6.1m) spacing)

Features

1. Extended Coverage Ordinary Hazard and Light Hazard protection to 400 ft² (37.2 m²) per sprinkler.
2. Nominal K = 11.2 (160).
3. Available in Pendent or Recessed Pendent styles.
4. Recessed pendent version provides 3/4" (19mm) adjustment to flush pendent position (see adjustment table).
5. Available in brass, chrome, polyester coated and Electroless Nickel PTFE (Teflon®)* plated
6. For applications as per NFPA 13.

Approvals Organizations

1. Underwriters Laboratories, Inc. (UL)
2. Underwriters Laboratories of Canada (cULus)

UL Listing Category

Sprinklers, Automatic and Open Extended Coverage Sprinklers-Ordinary Hazard Occupancy UL Guide Number – VNIV.

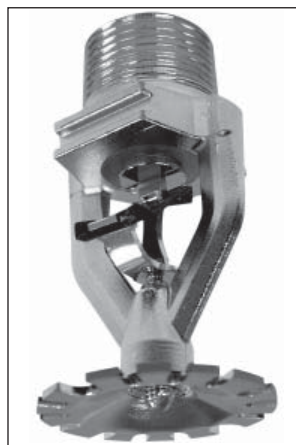
The Reliable Model JL112 and J112 sprinkler are Extended Coverage Sprinklers for use in both Light and Ordinary Hazard 1 and 2 occupancies with a coverage area of up to 400 square feet (37.2m²) per sprinkler.

For all light hazard applications it is a Quick Response sprinkler. For ordinary hazard applications, it is a Standard Response sprinkler when the spacing is 16' x 16' (4.9m x 4.9m) and larger. When the spacing is 12' x 12' (3.7m x 3.7m) or 14' x 14' (4.3m x 4.3m), the sprinkler is Quick Response for ordinary hazard applications.

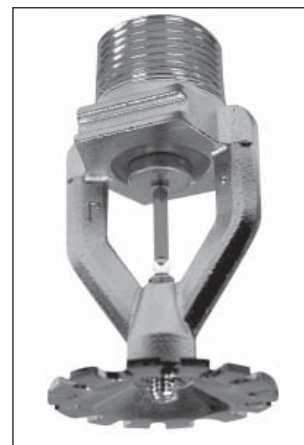
The use of ECLH/ECOH sprinklers can provide lower installation costs by requiring fewer sprinklers, less piping and reduced labor.

ECLH/ECOH sprinklers are to be installed according to the design criteria shown in this bulletin, NFPA 13, and all other local codes and ordinances. Flows and pressures as shown on pages 2 and 3 of this bulletin, must be used for the appropriate spacing and for the designated hazard classifications.

SIN RA7216 is Corrosion Resistant with White or Black Polyester Coating or Electroless Nickel PTFE (Teflon®)* plating.



Model JL112 Pendent (R7216) - Link



Model J112 Pendent (RA7216) - Bulb

This ECLH/ECOH sprinkler is available in various finishes, which includes a white polyester corrosion resistant finish.

ECLH/ECOH sprinklers are available in a pendent or an attractive recessed pendent type which provides up to 3/4" (19mm) of escutcheon adjustment.

Design Criteria

Reliable Model JL112 & J112 ECLH/ECOH sprinklers shall only be used in systems designed and installed in accordance with NFPA 13 and all other local codes and ordinances. The following design criteria also apply:

- Minimum sprinkler spacing is 8 ft (2.44m).
- Sprinklers have a minimum flow requirement for each spacing as shown in the Flow Requirements Table on the reverse side.
- Sprinklers are only to be used in systems hydraulically designed per NFPA 13.
- Deflector to commodity clearance shall be a minimum of 18 inches (457mm).
- ECOH sprinklers shall be installed in unobstructed construction as defined in NFPA 13.
- ECOH sprinklers which are installed above the bottom of a horizontal obstruction, shall have their deflectors located as shown in the Obstruction Table on page 3.
- Sprinklers can be installed under a sloping ceiling not exceeding 2 inches (50.8mm) of rise in 12 inches (304.5mm).
- Maximum working pressure is 175 psi (12.1 bar) at the sprinkler.

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Sprinkler Model Specifications

| Sprinkler Model | Type | Temperature Rating | | Max. Ceiling Temp. | | Maximum Sprinkler Spacing ft (m) | Maximum Coverage Area ft ² (m ²) | THD Size | Approvals |
|------------------------|---------------|--------------------|-----|--------------------|----|----------------------------------|---|------------------|-----------|
| | | °F | °C | °F | °C | | | | |
| JL112 ECLH/ECOH- R7216 | Link/Pendent | 165 | 74 | 100 | 38 | 20 (6.1) | 400 (37.2) | ¾" NPT (19mm) | 1,2 |
| JL112 ECLH/ECOH- R7216 | Link/Recessed | 212 | 100 | 150 | 66 | | | | |
| J112 ECLH/ECOH- RA7216 | Bulb/Pendent | 155 | 68 | 100 | 38 | 20 (6.1) | 400 (37.2) | | |
| J112 ECLH/ECOH- RA7216 | Bulb/Recessed | 200 | 93 | 150 | 66 | | | | |

Flow Requirements - Light Hazard - Quick Response

| Spacing ft (m) | Coverage Area ft ² (m ²) | Flow gpm (lpm) | Pressure psi (bar) | "K" Factor | |
|---------------------|---|----------------|--------------------|------------|--------|
| | | | | US | Metric |
| 16 x 16 (4.9 x 4.9) | 256 (23.8) | 30 (113.6) | 7.2 (0.5) | 11.2 | 160.0 |
| 18 x 18 (5.5 x 5.5) | 324 (30.1) | 33 (124.9) | 8.7 (0.6) | | |
| 20 x 20 (6.1 x 6.1) | 400 (37.2) | 40 (151.4) | 12.8 (0.9) | | |

Flow Requirements - Ordinary Hazard - Standard Response

| Spacing ft (m) | Coverage Area ft ² (m ²) | Ordinary Hazard 1 | | Ordinary Hazard 2 | | "K" Factor | |
|---------------------|---|--|--------------------|--|--------------------|------------|--------|
| | | 0.15 gpm/ft ² (6.1 L/min/m ²) Density | | 0.20 gpm/ft ² (8.1 L/min/m ²) Density | | | |
| | | Flow gpm (Lpm) | Pressure psi (bar) | Flow gpm (lpm) | Pressure psi (bar) | US | Metric |
| 16 x 16 (4.9 x 4.9) | 256 (23.8) | 39 (147.6) | 12.1 (0.8) | 51 (193.0) | 20.7 (1.4) | 11.2 | 160.0 |
| 18 x 18 (5.5 x 5.5) | 324 (30.1) | 49 (185.5) | 19.1 (1.3) | 65 (246.0) | 33.7 (2.3) | | |
| 20 x 20 (6.1 x 6.1) | 400 (37.2) | 60 (227.1) | 28.7 (2.0) | 80 (302.8) | 51.0 (3.5) | | |

Flow Requirements - Ordinary Hazard - Quick Response

| Spacing ft (m) | Coverage Area ft ² (m ²) | Ordinary Hazard 1 | | Ordinary Hazard 2 | | "K" Factor | |
|---------------------|---|--|--------------------|--|--------------------|------------|--------|
| | | 0.15 gpm/ft ² (6.1 L/min/m ²) Density | | 0.20 gpm/ft ² (8.1 L/min/m ²) Density | | | |
| | | Flow gpm (Lpm) | Pressure psi (bar) | Flow gpm (Lpm) | Pressure psi (bar) | US | Metric |
| 14 x 14 (4.3 x 4.3) | 196 (18.2) | 30 (113.6) | 7.2 (0.5) | 39 (147.6) | 12.1 (0.8) | 11.2 | 160.0 |
| 12 x 12 (3.7 x 3.7) | 144 (13.4) | | | | | | |

Recess Escutcheons

F1/F2



Model J1

Sprinkler Wrench

Use Model J1 Wrench for JL112 & J112 ECLH/ECOH Pendent Sprinkler Removal and Installation

J1 Wrench



FP



Model RJ

Sprinkler Wrench

Use Model RJ Wrench for JL112 & J112 ECLH/ECOH Recessed Sprinkler Removal and Installation

RJ Wrench



Recessed Pendent ECLH/ECOH Adjustments ⁽¹⁾

| Escutcheon | ECLH | | ECOH | |
|------------|----------------|----------------|----------|----------|
| | R7216 | RA7216 | R7216 | RA7216 |
| FP | ¾ (19.0) | ¾ (19.0) | ¾ (19.0) | ¾ (19.0) |
| F1 | ⁽²⁾ | ⁽²⁾ | ¾ (19.0) | ¾ (19.0) |
| F2 | ½ (12.7) | ½ (12.7) | ½ (12.7) | ½ (12.7) |

⁽¹⁾ Adjustments in inches (mm).

⁽²⁾ Not listed by UL or cULus.

Finishes

| Sprinkler Finishes | |
|---|----------------------------------|
| Sprinkler | Escutcheon |
| Bronze Chrome White and Black Polyester Coated ⁽²⁾ | Brass Chrome White Painted |

| Special Application Finishes | |
|---|------------------------------------|
| Sprinkler | Escutcheon |
| Electroless Nickel PTFE(Teflon®)* ⁽¹⁾⁽²⁾ | Electroless Nickel PTFE (Teflon®)* |

⁽¹⁾ RA7216 Only

⁽²⁾ Corrosion Resistant

Ordering Information

1. Sprinkler Model
2. Temperature Rating
3. Finish
4. Escutcheon and finish (where applicable)

| Corrosion Resistant | | |
|---------------------|------|----|
| J112 ECLH/ECOH | Bulb | |
| | °F | °C |
| | 155 | 68 |
| 200 | 93 | |

Minimum Flow Requirements For Earlier Editions of NFPA 13 - FOR REFERENCE ONLY

| Spacing ft (m) | Coverage Area ft ² (m ²) | NFPA13 - 1991 Requirements | | | | NFPA13 - 1989 Requirements | | | | | | "K" Factor | |
|------------------------------------|---|--|--------------------------|--|--------------------------|--|--------------------------|--|--------------------------|--|--------------------------|------------|--------|
| | | Ordinary Hazard 1 | | Ordinary Hazard 2 | | Ordinary Hazard 1 | | Ordinary Hazard 2 | | Ordinary Hazard 3 | | US | Metric |
| | | 0.15 gpm/ft ² (6.1 L/min/m ²) Density | | 0.20 gpm/ft ² (8.1 L/min/m ²) Density | | 0.16 gpm/ft ² (6.5 L/min/m ²) Density | | 0.19 gpm/ft ² (7.7 L/min/m ²) Density | | 0.21 gpm/ft ² (8.6 L/min/m ²) Density | | | |
| Flow gpm (Lpm) | Pressure psi (bar) | Flow gpm (Lpm) | Pressure psi (bar) | Flow gpm (Lpm) | Pressure psi (bar) | Flow gpm (Lpm) | Pressure psi (bar) | Flow gpm (Lpm) | Pressure psi (bar) | Flow gpm (Lpm) | Pressure psi (bar) | | |
| 14 x 14 (4.3 x 4.3) and less | 196 (18.2) | 30.2 (114.3) | 7.0 (0.48) | 39.2 (148.3) | 11.9 (0.82) | 31.4 (118.8) | 7.6 (0.52) | 37.3 (141.2) | 10.7 (0.74) | 41.2 (155.9) | 13.0 (0.90) | 11.4 | 164.4 |
| 16 x 16 (4.9 x 4.9) | 256 (23.8) | 38.4 (145.3) | 11.4 (0.79) | 51.2 (193.8) | 20.2 (1.39) | 41.0 (155.2) | 12.9 (0.89) | 48.7 (184.3) | 18.2 (1.26) | 53.8 (203.6) | 22.3 (1.54) | | |
| 18 x 18 (5.5 x 5.5) | 324 (30.1) | 48.6 (184.0) | 18.2 (1.24) | 64.8 (258.9) | 32.3 (2.23) | 51.9 (196.4) | 20.7 (1.43) | 61.6 (233.2) | 29.2 (2.01) | 68.0 (257.4) | 35.7 (2.46) | | |
| 20 x 20 (6.1 x 6.1) | 400 (37.2) | 60.0 (227.1) | 27.7 (1.91) | 80.0 (302.8) | 49.3 (3.40) | 64.0 (242.2) | 31.5 (2.17) | 76.0 (287.7) | 44.5 (3.07) | 84.0 (317.9) | 54.3 (3.75) | | |

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Installation Requirements for Under Concrete Tees - cULus

- The stems of the concrete tee construction must be spaced at less than 7.5 feet (2.3m) on center but more than 3 feet (0.9m) on center. The depth of the concrete tees must not exceed 30 inches (762mm). The maximum permitted concrete tee length is 32 feet (9.8m); however, where the concrete tee length exceeds 32 feet (9.8m), non-combustible baffles, equal in height to the depth of the tees, can be installed so that the longitudinal space between the tees does not exceed 32 feet (9.8m) in length.
- The sprinkler deflectors are to be located in a horizontal plane at or above 1 inch (25.4mm) below the bottom of the concrete tee stems.
- When the sprinkler deflectors are located higher than a horizontal plane 1 inch (25.4mm) beneath the bottom of the concrete tee stems, the obstruction to sprinkler discharge criteria requirements of NFPA 13 for extended coverage upright sprinkler applies.

Location of Deflector to Horizontal Obstruction

| Distance from Sprinkler to Side of Obstruction | Maximum Allowable Distance Deflector Above Bottom of Obstruction |
|--|--|
| Less than 1'..... | 0" |
| (Less than 0.305m | 0mm) |
| 1' to less than 1' - 6"..... | 0" |
| (0.305m to less than 0.305m - 152.4mm..... | 0mm) |
| 1' - 6" to less than 2'..... | 1" |
| (0.305m - 152.4mm to less than 0.61m..... | 25.4mm) |
| 2' to less than 2' - 6"..... | 1" |
| (0.61m to less than 0.61m - 152.4mm..... | 25.4mm) |
| 2' - 6" to less than 3'..... | 1" |
| (0.61m - 152.4mm to less than 0.915m..... | 25.4mm) |
| 3' to less than 3' - 6"..... | 3" |
| (0.915m to less than 0.915m - 152.4mm..... | 76.2mm) |
| 3' - 6" to less than 4'..... | 4" |
| (0.915m - 152.4mm to less than 1.22m | 101.6mm) |
| 4' to less than 4' - 6"..... | 5" |
| (1.22m to less than 1.22m - 152.4mm..... | 127mm) |
| 4' - 6" to less than 5' | 7" |
| (1.22m - 152.4mm to less than 1.525m | 177.8mm) |
| 5' to less than 5' - 6" | 7" |
| (1.525m to less than 1.525m - 152.4mm..... | 177.8mm) |
| 5' - 6" to less than 6' | 7" |
| (1.525m - 152.4mm to less than 1.83m | 177.8mm) |
| 6' to less than 6' - 6"..... | 9" |
| (1.83m to less than 1.83m - 152.4mm..... | 228.6mm) |
| 6' - 6" to less than 7' | 11" |
| (1.83m - 152.4mm to less than 2.135m | 279.4mm) |
| 7' and greater | 14" |
| (2.135m and greater | 355.6mm) |

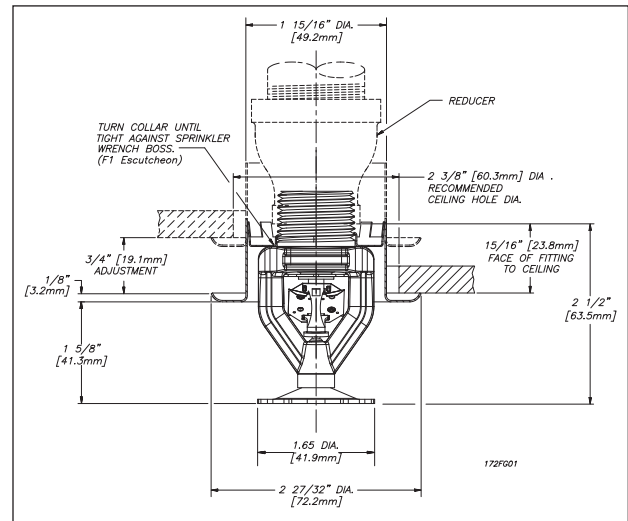


Fig. 1 - F1 Escutcheon

| Solder Link | | | | Bulb | | | |
|----------------|-----|-----|------------|----------------|-----|----|------------|
| Classification | °F | °C | Link Color | Classification | °F | °C | Bulb Color |
| Ordinary | 165 | 74 | Black* | Ordinary | 155 | 68 | Red |
| Intermediate | 212 | 100 | White | Intermediate | 200 | 93 | Green |

* 165°F chrome plated and white painted sprinklers will contain a white painted solder link.

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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Revision lines indicate updated or new data.

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