

# Reliable®

## Model G4 XLO-QR ECLH/ECOH Quick-Response Extended Coverage K11.2 (160 metric) Concealed Pendent (SIN R7146)

### Quick-Response for Light Hazard and Ordinary Hazard occupancies

Spacing up to 20ft x 20ft (6.1m x 6.1m)

#### Features

1. Extended Coverage protection to 400 ft<sup>2</sup> (37.2 m<sup>2</sup>) per sprinkler.
2. Nominal K-factor of 11.2 (160 metric).
3. Ordinary temperature rated - 165°F (74°C).
4. Flat cover plate with ½ inch (13 mm) assembly adjustment.
5. Smooth aesthetic ceiling profile.
6. Cover plate available in a wide variety of colors and finishes.
7. Cover plate does not require clips or springs.

#### Approvals

1. Listed by Underwriters Laboratories, Inc. and certified by UL for Canada (cULus).

#### UL Listing Category

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

#### Product Description

The Reliable Model G4 XLO-QR ECLH/ECOH Concealed sprinkler is an Extended Coverage Sprinkler for use in Light Hazard and Ordinary Hazard occupancies with a coverage area of up to 400 square feet (37.2 m<sup>2</sup>) per sprinkler.

The use of extended coverage sprinklers can provide lower installation costs by requiring fewer sprinklers, less piping and reduced labor. The larger K-factor 11.2 (160 metric) provides for reduced pressures to achieve the required flow compared with smaller K-factor sprinklers.

The G4 XLO-QR ECLH/ECOH can eliminate the need for precise cutting of drop nipples. The Push-on/Thread-off cover plate assembly provides up to 1/2" (13 mm) of adjustment to allow the cover to fit accurately against the ceiling. The fire protection system need not be shut down when adjusting or removing the Push-on/Thread-off cover plate assembly.



G4 XLO-QR ECLH/ECOH Concealed

#### Design Criteria

G4XLO-QR 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 in the Flow Requirements chart on page 2 of this Bulletin, must be selected based on the spacing and hazard classifications.

The following criteria also apply:

- Minimum sprinkler spacing is 9 ft (2.75 m).
- Sprinklers have a minimum flow requirement for each spacing as shown in the Flow Requirements chart on page 2.
- Sprinklers are only to be used in systems hydraulically designed per NFPA 13.
- Deflector to commodity clearance shall be a minimum of 18 inches (457 mm).
- Sprinklers shall be installed in unobstructed construction as defined in NFPA 13.
- Sprinklers can be installed under a sloping ceiling not exceeding 2 inches (50.8 mm) of rise in 12 inches (304.5 mm).
- Maximum working pressure is 175 psi (12.1 bar) at the sprinkler.

## Technical Data

Sprinkler Model	Type	Nominal K-factor gpm/psi <sup>1/2</sup> (lpm/bar <sup>1/2</sup> )	Temperature Rating		Max. Ceiling Temp.		Maximum Sprinkler Spacing ft (m)	Maximum Coverage Area ft <sup>2</sup> (m <sup>2</sup> )	Thread Size	Approvals
			°F	°C	°F	°C				
G4 XLO-QR ECLH/ECOH	Concealed Pendent	11.2 (160)	165	74	100	38	20 (6.1)	400 (37.2)	¾"NPT or ISO 7-1 R3/4	cULus

## Flow Requirements - Quick Response

Spacing ft (m)	Coverage Area ft <sup>2</sup> (m <sup>2</sup> )	Light Hazard		Ordinary Hazard Group 1		Ordinary Hazard Group 2	
		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)	196 (18.2)	30 (113.5)	7.2 (0.5)	30 (113.6)	7.2 (0.5)	39 (147.6)	12.1 (0.8)
16 x 16 (4.9 x 4.9)	256 (23.8)	30 (113.5)	7.2 (0.5)	39 (147.6)	12.1 (0.8)	51 (193.0)	20.7 (1.4)
18 x 18 (5.5 x 5.5)	324 (30.1)	33 (125.0)	8.7 (0.6)	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)	40 (151.0)	12.8 (0.9)	60 (227.1)	28.7 (2.0)	80 (302.8)	51.0 (3.5)

## Installation

Do not install the MODEL G4 XLO-QR ECLH/ECOH in ceilings which have positive pressure in the space above. After installation, inspect all sprinklers to ensure that both the gap between the cover plate and ceiling and the 4 drive slots in the cup are open and free from any air flow impediment.

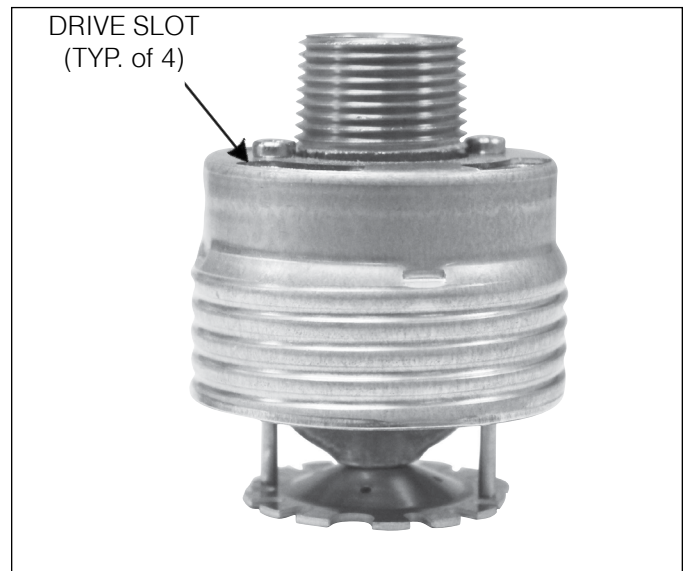
After a 2<sup>5</sup>/<sub>8</sub>" (67 mm) diameter hole is cut in the ceiling, the sprinkler is to be installed with the Model G4 Wrench. When installing a sprinkler, the wrench is first positioned into the sprinkler/cup assembly until two wrench tangs fully engage drive slots in the top of the cup. The sprinkler is then tightened into the pipe 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/CUP ASSEMBLY.

A protective cap is provided to protect the drop down deflector from damage which could occur during construction before the cover plate is installed. The cap is factory installed inside the sprinkler cup. Remove the cap to install the sprinkler, then replace the cap until the cover plate is installed.

**THE MODEL G4 XLO-QR ECLH/ECOH SPRINKLER MUST BE INSTALLED ONLY WITH A 135°F RATED MODEL G4/G5 COVER PLATE WHICH HAS BEEN LISTED WITH THE SPRINKLER.**



**Model G4 Wrench**



G4 XLO-QR ECLH/ECOH Concealed Pendent

## Maintenance

Model G4XLO-QR ECLH/ECOH sprinklers should be inspected and 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. Replace any sprinkler or cover plate assembly, 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 their original cartons and packaging until used to minimize the potential for damage to sprinklers that would cause improper operation or non-operation. Once operated automatic sprinklers and cover plates cannot be reassembled and reused. New sprinklers of the same size, type and temperature rating must be installed. A cabinet of replacement sprinklers should be provided for this purpose.

## Model Model G4XLO-QR ECLH/ECOH Concealed Pendent Sprinkler Specification

Sprinklers shall be a cULus listed as Quick-Response Extended Coverage sprinklers for Light Hazard, Ordinary Hazard Group 1, and Ordinary Hazard Group 2 occupancies. Sprinklers to be of bronze frame construction with brass cover plate and copper alloy retainer flange assembly. Water seal assembly shall consist of a PTFE coated Belleville spring washer and machined brass cup containing no plastic parts. Method of attaching the cover plate to the sprinkler cup shall be a Push-on and Thread-off design allowing a 1/2" (13 mm) cover plate adjustment. Sprinklers shall have a nominal K-factor of 11.2 (160 metric), and 3/4" NPT threads. Sprinkler temperature rating shall be 165°F (74°C) with a cover plate temperature rating of 135°F (57°C). Sprinklers shall be capable of a maximum coverage area of 20 ft. x 20 ft. (6.1 m x 6.1 m), with a minimum horizontal spacing of 9 ft. (2.75 m). Rated working pressure shall be 175 psi (12.0 bar). A plastic protective cap shall be provided and factory installed onto the sprinkler cup to protect the sprinkler prior to installation of the cover plate. Cover plate type: G4/G5. Cover plate finish: [White] [Chrome] [Custom Finish-specify]. Quick-Response Extended Coverage Concealed Pendent Sprinklers for Light Hazard and Ordinary Hazard Occupancies shall be Reliable Model G4XLO-QR ECLH/ECOH. SIN R7146 (Bulletin 171).

## Ordering Information

### Specify:

1. Sprinkler Model: G4XLO-QR ECLH/ECOH (SIN R7146)
2. Cover Plate Finish: [See Cover Plate Finishes chart]
3. Cover Plate Type: Model G4/G5
4. Thread Size: 3/4" NPT unless otherwise specified, ISO 7-1 R3/4 available by special order

The installation wrench is Model G4.

### Sprinkler Identification Number (SIN): R7146

### Cover Plate Finishes

Standard Finishes
White Paint
Chrome
Special Application Finishes
Off White Paint
Black Paint
Custom Color Paint – Specify <sup>(1)</sup>
Raw Brass (Lacquered)
Bright Brass
Finished Bronze
Black Plated
Satin Chrome
Stainless Steel Clad <sup>(2)</sup>

<sup>(1)</sup> Custom color paint is semi-gloss, unless specified otherwise.

<sup>(2)</sup> Stainless steel clad cover plates are Type 316 Stainless Steel on the finished side and C102 Copper Alloy on the back side. Cover plates are not listed or approved as corrosion resistant.

**Note:** Paint or any other coatings applied over the factory finish will void all approvals and warranties.

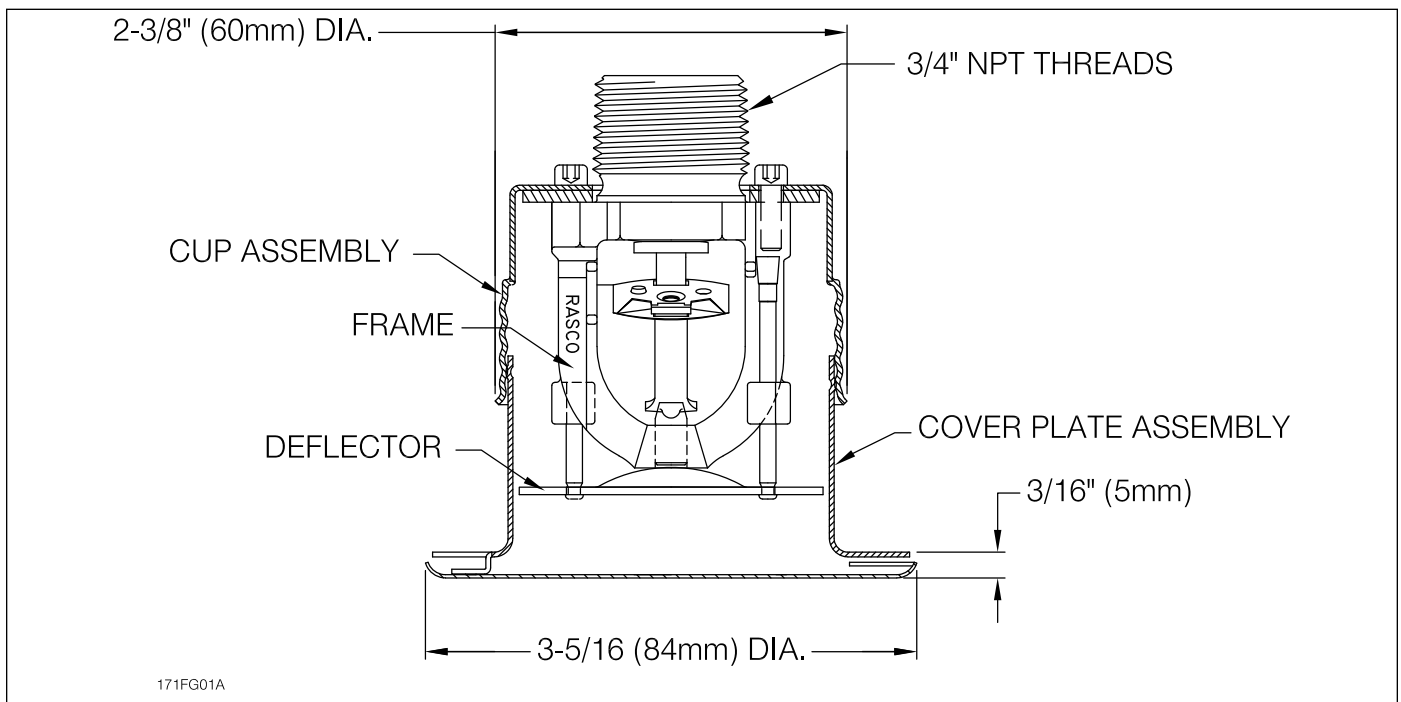


Fig. 1 - Sprinkler and Cover Plate Dimensions

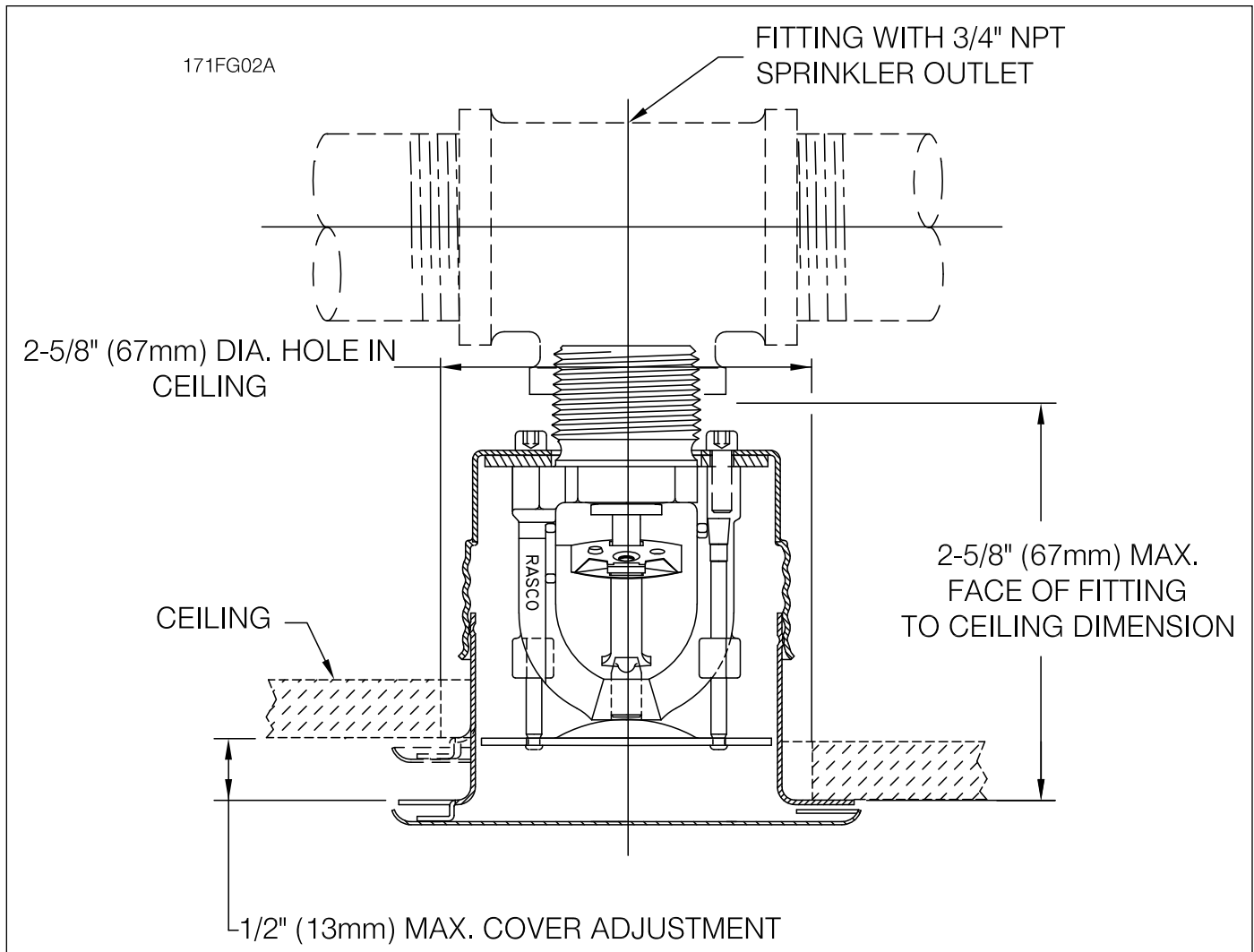


Fig. 2 - Installation Dimensions

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 almost 100 years.

Manufactured by



**Reliable Automatic Sprinkler Co., Inc.**

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