Model G4XLO EC Quick Response and Standard Response Extended Coverage Concealed Pendent

Features

- Extended coverage protection to 20 ft x 20 ft (6.1 m x 6.1 m) for light and ordinary hazard occupancies
- Flat cover plate available in a variety of finishes
- 1/2 inch (13 mm) cover plate adjustment

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.

Product Description

The Model G4XLO EC is a cULus Listed extended coverage concealed pendent sprinkler with an 11.2 (160 metric) K-factor for use in light and ordinary hazard occupancies. The Model G4XLO EC sprinkler utilizes a sensitive soldered alloy fusible element and a flat cover plate, and is available in 165°F (74°C) ordinary temperature and 212°F (100°C) intermediate temperature ratings. The 165°F sprinkler is considered quick response regardless of occupancy while the 212°F sprinkler is considered QR in light hazard occupancies and standard response in ordinary hazard occcupancies. Maximum coverage area per sprinkler is 400 ft^2 (37.2 m^2).

Systems using extended coverage sprinklers use fewer sprinklers and less piping which can result in lower installation cost. Additionally, the larger 11.2 (160 metric) K-factor of the G4XLO EC results in lower discharge pressures when compared to smaller K-factor sprinklers.

Table A provides a summary of the Model G4XLO EC sprinkler. Additional technical information for the product is provided on page 2.



G4XLO EC ECLH/ECOH Concealed

Application

Model G4XLO EC sprinklers are extended coverage concealed pendent fire sprinklers intended for use in accordance with NFPA 13 as well as the requirements of any other authority having jurisdiction. Minimum flow and pressure requirements, based upon sprinkler spacing, are provided in Table B (page 2).

The following criteria also apply to the Model G4XLO EC:

- Minimum sprinkler spacing is 9 ft (2.75 m).
- Sprinklers are only to be used in systems hydraulically designed per NFPA 13.
- Sprinklers shall be installed in unobstructed construction as defined in NFPA 13.
- Ceiling slope is limited to a pitch of 2:12 (16.7 percent)
- Maximum working pressure is 175 psi (12.1 bar) at the sprinkler.

Sprinkler Summary — **Table A**

Sprinkler Model	K-Factor gpm/$psi^{1/2}$ (L/min/$bar^{1/2}$)	Max. Working Pressure psi (bar)	Listings & Approvals	Orientation	Sprinkler Identification Number (SIN)
G4XLO EC	11.2 (160)	175 (12)	cULus	Concealed Pendent	R7146

Model G4XLO EC — SIN R7146

Technical Specifications
Style: Extended Coverage Flat Plate Concealed Pendent
Threads: 3/4" NPT or ISO 7-1 R3/4
Nominal K-Factor: 11.2 (160 metric)
Max. Working Pressure: 175 psi (12 bar)

Material Specifications
Fusible Link: Beryllium Nickel
Sprinkler Body: Brass Alloy
Levers: Bronze Alloy
Sealing washer: Nickel with PTFE
Load Screw: Bronze Alloy
Towers: Copper Alloy
Pins: Stainless Steel
Deflector: Bronze Alloy
Cup: Steel

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

Sensitivity
165°F (74°C)
- Light & Ordinary Hazard: Quick Response

212°F (100°C)
- Light Hazard: Quick Response
- Ordinary Hazard: Standard Response

Cover Plate: Model G5
135°F (57°C) for 165°F (74°C) sprinklers
165°F (74°C) for 212°F (100°C) sprinklers

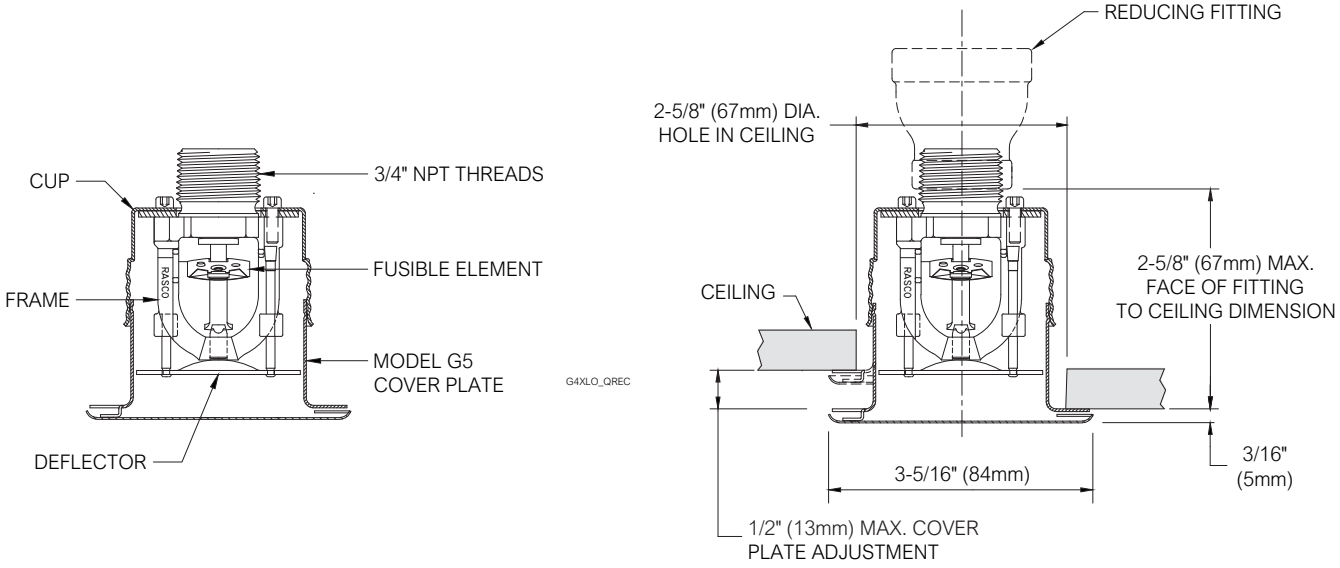
Cover Plate Finishes
(See Table C)

Sprinkler Wrench
Model G4

Listings and Approvals
cULus Listed (Light and Ordinary hazard)



Model G4XLO EC Components and Dimensions — Figure 1



Minimum Flow and Pressure Requirements — Table B

Spacing ft (m)	Coverage Area ft² (m²)	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

Model G4XLO EC sprinklers must be installed in accordance with NFPA 13 and the requirements of the authorities having jurisdiction using only the Reliable installation wrench identified in this bulletin. Any other wrench may damage the sprinkler. Damaged sprinklers must be immediately replaced.

When installing the sprinkler, the Model G4 wrench is first positioned into the cup until the two wrench tabs fully engage the drive slots in the top of the cup (see Figures 2 and 3). Care must be taken when inserting the wrench into the cup to avoid damaging the sprinkler. DO NOT WRENCH ON ANY OTHER PART OF THE SPRINKLER. The sprinkler is then tightened into the pipe fitting.

A leak tight sprinkler joint can be obtained with a torque of 14 - 20 lb-ft (19 - 27 N·m) after applying an appropriate thread sealant. Exceeding the recommended torque may cause leakage or impairment of the sprinklers.

The Model G4XLO EC sprinkler must only be installed with a 135°F (57°C) or 165°F (74°C) Model G5 cover plate which has been listed with the sprinkler.

Do not install the Model G4XLO EC sprinkler in locations where the pressure in the space above the sprinkler is higher than the pressure in the space below the ceiling.

Maintenance

Reliable Model G4XLO EC 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. Failure to properly maintain sprinklers may result in inadvertent operation or non-operation during a fire event.

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.

Model G4 Wrench **Figure 2**



Model G4XLO Drive Slot **Figure 3**



Model G5 Cover Plate Finishes[1] **Table C**

Standard Finishes	Special Finishes
White Paint Chrome	Off-White Paint Black Paint Custom Color Paint - Specify[2] Raw Brass (Lacquered) Bright Brass Finished Bronze Satin Chrome Custom Printed

Notes:
1. Paint or any other coating applied over the factory finish will void all approvals and warranties.
2. Custom color paint is semi-gloss unless specified otherwise.

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 G4XLO EC Sprinkler

Threads
- [3/4" NPT] [ISO 7-1 R3/4]

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

Cover Plate: Model G5
- 135°F (57°C) for 165°F (74°C) sprinklers
- 165°F (74°C) for 212°F (100°C) sprinklers

Cover Plate Finish
- See Table C

P/N 9999970465