



SERIES GL-QR/INCH/ECLH

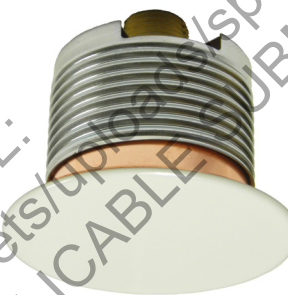
EXTENDED COVERAGE, QUICK RESPONSE, LIGHT HAZARD

CONCEALED PENDENT SPRINKLERS

K-FACTOR: 5.6

GENERAL DESCRIPTION

The Globe Series GL-QR/INCH/ECLH sprinkler is a Listed Quick Response concealed sprinkler which utilizes a 3mm frangible glass bulb as the thermosensitive operating element. It is Listed and Approved as an Extended Coverage sprinkler for Light Hazard Occupancies for a maximum coverage area of 400 sq. ft. and is to be installed in accordance with the guidelines of the appropriate Installation Standard being mandated by the AHJ (i.e. NFPA 13). While providing the optimal aesthetic appeal with the low profile flat cover plate, the GL-QR/INCH/ECLH additionally provides the largest vertical adjustment in the industry of a nominal 1". This nominal 1" adjustment allows for previously unrecognized installation flexibility resulting in a clean and tight final "fit" to the ceiling. The sprinkler is available in three temperatures and the cover plate is available in two temperatures. The nominal K-Factor is 5.6 (80,6) and the threads are 1/2" npt.



OPERATION

The soldered cover plate drops off the retainer assembly when exposed to heat, as from a fire, that has reached the plate's Listed temperature rating exposing the sprinkler above. Upon the releasing of the cover plate, the deflector, which is connected to two guide pins, drops down below the ceiling into its intended position. As heat encompasses the glass bulb operating element of the sprinkler, the fluid in the bulb expands, compressing the air bubble within the bulb. When the air bubble can no longer compress, the fluid expansion causes breakage of the glass bulb, resulting in release of the water seal assembly, and discharge of water from the sprinkler.

FINISHES AND ACCESSORIES

Sprinkler Finish

- Factory Bronze

Cover Plates

- Chrome • White Painted • Black Painted • Custom

Caution:

Factory painted cover plates must not be repainted. Non-factory applied paint may adversely delay or prevent sprinkler operation in the event of a fire.

Wrench

- 1/2" NPT 1" Adjustable Concealed P/N 332765

TECHNICAL DATA

S/N

- GL5603

Approvals

- cULus - Light Hazard

Maximum Working Pressure

- 175 psi (12 bar)

Minimum Operating Pressure

- See TABLE A

Minimum Spacing

- 8 ft. (2.4 m)

Temperature Rating

- See TABLE A

Materials of Construction

- Frame - bronze • Deflector - brass • Screw - brass
- Bulb seat - copper
- Spring - nickel alloy • Seal - teflon
- Bulb - glass with alcohol based solution, 3mm
- Cover Plate - brass
- Upper Escutcheon Assembly - carbon steel

Note:

Users should refer to Globe's web site (www.globesprinkler.com) to assure that the most recent technical literature is being utilized.

INSTALLATION

Caution:

Do not install any bulb-type sprinkler if the bulb is cracked or there is loss of liquid from the bulb. Sprinklers should be tightened enough to obtain a leak-tight joint when water pressure is applied and/or hydrostatic test is performed. Sprinklers should not be overtightened as this can result in distortion and subsequent leakage. It is recommended not to exceed 14 ft.-lb. (19.0 Nm) torque for 1/2 inch NPT threads.

- Step 1.** Install pendent sprinklers in the pendent position, with the centerline of the sprinkler perpendicular to the mounting surface.
- Step 2.** Remove the Protective Cap.
- Step 3.** With pipe-thread sealant applied to the pipe threads, and using the Concealed Sprinkler Wrench P/N 332765 (FIGURE 1), install and tighten the Sprinkler/Concealed Cup Assembly into the fitting.

- Step 4.** Replace the Protective Cap by pushing it upwards until it bottoms out against the Support Cup. The Protective Cap helps prevent damage to the Deflector and Drop Pins during ceiling installation and/or during application of the finish coating of the ceiling.

NOTICE:

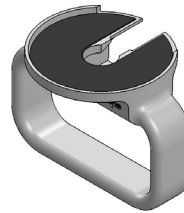
The system is considered Out of Service when the protective caps are in place.

- Step 5.** After the ceiling has been completed with the 2-3/4" (70mm) diameter hole, remove and discard the Protective Cap and verify that the Deflector moves up and down freely. If the sprinkler has been damaged or the deflector does not move up and down freely, replace the entire sprinkler assembly. Do not attempt to modify or repair.

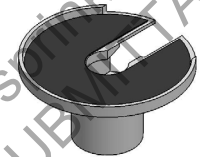
- Step 6.** Push on the Cover Plate Assembly until its flange contacts the ceiling. Never attempt to screw on the Cover Plate Assembly such that it lifts a ceiling panel out of its normal position. If the Cover Plate Assembly cannot be engaged with the Mounting Cup or the Cover Plate Assembly cannot be engaged sufficiently to contact the ceiling, the Sprinkler Fitting must be repositioned.



**FIGURE 1: ADJUSTABLE CONCEALED WRENCH
P/N 332765**



**FIGURE 2: HAND HELD
INSTALLATION TOOL
P/N 332875**



**FIGURE 3:
INSTALLATION TOOL
USED WITH EXTENSION
P/N 332765**

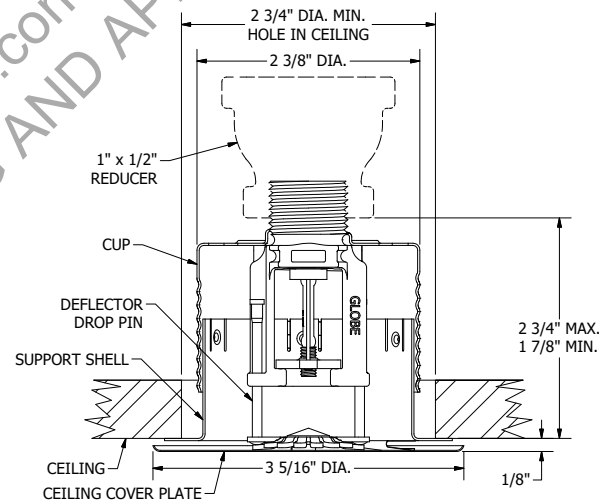


FIGURE 4: INSTALLED POSITION

TABLE A: HYDRAULIC DESIGN AREA

MAX. SPACING ft. (m)	MIN. FLOW gpm (lpm)	MIN. PRESSURE psi (bar)	SPRINKER TEMPERATURE RATING	COVER PLATE TEMPERATURE RATING
16 x 16 (4.9 x 4.9)	26 (98)	21.5 (1.48)	135°F, 155°F (57°C, 68°C)	135°F (57°C)
			155°F, 175°F (68°C, 79°C)	155°F (68°C)
18 x 18 (5.5 x 5.5)	33 (125)	34.7 (2.39)	135°F, 155°F (57°C, 68°C)	135°F (57°C)
			155°F, 175°F (68°C, 79°C)	155°F (68°C)
20 x 20 (6.1 x 6.1)	40 (151)	51.0 (3.52)	135°F (57°C)	135°F (57°C)

TABLE B: COVER PLATE PART NUMBERS

COVER PLATE SIZE	WHITE 135°F (57°C)	CHROME 135°F (57°C)	WHITE 155°F (68°C)	CHROME 155°F (68°C)	BLACK 135°F (57°C)	BLACK 155°F (68°C)	CUSTOM 135°F (57°C)	CUSTOM 155°F (68°C)
3-5/16" DIA.	332892	332891	332898	332897	332892-B	332898-B	332893	332899

CARE AND MAINTENANCE

Always obtain permission from the proper authorities to shut down the affected fire protection system and notify all personnel who may be affected by this action before closing a fire protection system main control valve for maintenance work on the system that it controls. Sprinklers should only be cleaned by means of gently dusting with a feather duster; otherwise, non-operation in the event of a fire or inadvertent operation may result.

When properly installed, there is a nominal 1/8" (3mm) air gap between the Cover Plate and the ceiling (FIGURE 4). This air gap is necessary for proper operation of the sprinkler by allowing heat flow from a fire to pass below and above the Cover Plate to help assure appropriate release of the Cover Plate in a fire situation. This annular "gap" must be maintained and should never be sealed or caulked.

Factory painted Cover Plates must not be repainted.

In accordance with NFPA 25, Sprinklers which are found to be leaking or exhibiting visible signs of corrosion must be replaced.

Automatic sprinklers must never be painted, plated, coated, or otherwise altered after leaving the factory.

Care must be exercised to avoid damage to the sprinklers—before, during, and after installation. Sprinklers damaged by dropping, striking, wrench slippage, or similar incidents, must be replaced.

The owner is responsible for the inspection, testing, and maintenance of their fire protection system and devices in compliance with this document, as well as with the applicable standards of the National Fire Protection Association (e.g. NFPA 25), in addition to the standards of any other authorities having jurisdiction.

ORDERING INFORMATION

SPECIFY

- SPRINKLER
 - Quantity • SIN • Temperature Rating • Finish • Part Number

GL5603

SPRINKLER

	PART NUMBER
135°F (57°C)	560313501
155°F (68°C)	560315501
175°F (79°C)	560317501

COVER PLATES

SEE TABLE B

- WRENCH
 - Quantity • Part Number 332765
- PROTECTIVE CAP
 - Quantity • Part Number 332871

GLOBE® PRODUCT WARRANTY

Globe agrees to repair or replace any of its manufactured products found to be defective in material or workmanship for a period of one year from date of shipment.

For specific details of our warranty please refer to Price List Terms and Conditions of Sale (Our Price List).

