

# SERIES GL-QR/C STANDARD COVERAGE, QUICK RESPONSE FLAT PLATE CONCEALED PENDENT SPRINKLER

## K-FACTOR: 2.8, 4.2, 5.6

### GENERAL DESCRIPTION

Globe Series GL-QR/C sprinklers are Listed Quick Response concealed sprinklers which utilize a 3mm frangible glass bulb as the thermosensitive operating element. They are Listed and Approved as Standard Coverage sprinklers and are to be installed in accordance with the guidelines of the appropriate Installation Standard being mandated by the AHJ (i.e. NFPA 13). The GL-QR/C provides for 1/8" of total adjustment in the field. The sprinkler is available in four temperatures and the cover plate is available in two temperatures,

### OPERATION

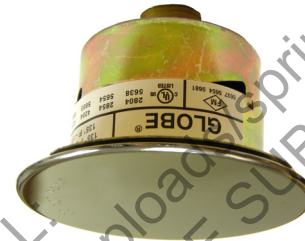
The soldered cover plate drops off the retainer assembly when exposed to heat, as from a fire, that has reached the plate's Listed temperature rating exposing the sprinkler above. As heat encompasses the glass bulb operating element of the sprinkler, the fluid in the bulb expands, compressing the air 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.

### INSTALLATION

#### NOTICE

*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 sprinkler threads.*

- Step1.** Sprinklers must be properly oriented.
- Step2.** With pipe thread sealant applied to the pipe threads, hand tighten the sprinkler into the sprinkler fitting. *Note: Do not grasp the sprinkler by the deflector.*
- Step3.** Wrench-tighten the sprinkler using only the appropriate wrench. Wrenches are only to be applied to the sprinkler wrench flats or wrench hex as applicable. *Note: Do not apply wrench to frame arms.*
- Step4.** To install the ceiling cover plate, align it with and press it over the support ring assembly, then push upward and twist to the right.



### TECHNICAL DATA

#### SIN

- GL2804, GL4204, GL5604

#### Approvals

- See Listings and Approvals Table A

#### Maximum Working Pressure

- 175 psi (12 bar)
- Factory tested to 500 psi (34 bar)

#### Minimum Operating Pressure

- 7 psi (48 kPa)

#### Sprinkler/Cover Plate Temperature Combinations

- See Listings and Approvals Table A

#### Materials of Construction

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

### FINISHES AND ACCESSORIES

#### Sprinkler Frame

- Factory Bronze

#### Cover Plate

- Chrome • White Polyester • Black Polyester
- For custom colors, contact Globe Customer Service

#### Wrench

- Recessed/Concealed P/N 325391

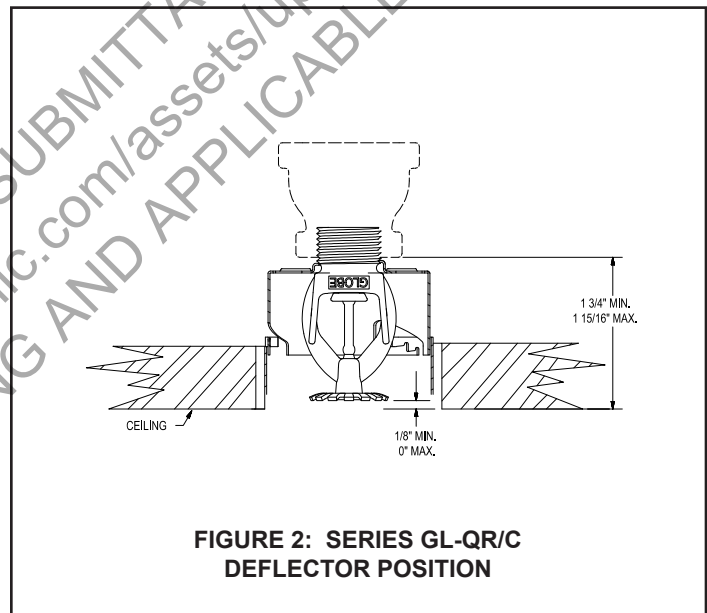
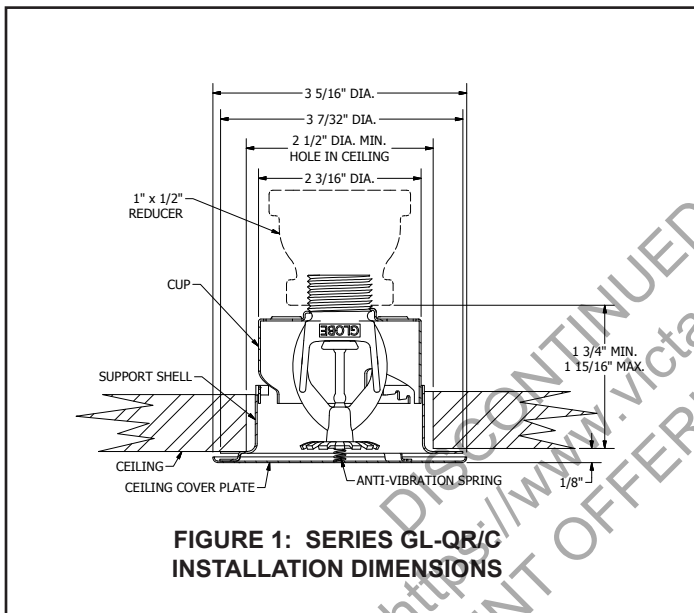
#### NOTE:

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

## TABLE A: LISTINGS AND APPROVALS

STYLE	SIN	K-FACTOR	135°F (57°C) Cover Plate		155°F (68°C) Cover Plate			cULus	LPCB <sup>(1)</sup>	CE	Minimum Distance Between Sprinklers
			135°F (57°C) Sprinkler	155°F (68°C) Sprinkler	155°F (68°C) Sprinkler	175°F (79°C) Sprinkler	200°F (93°C) Sprinkler				
Concealed Pendent	GL2804	2.8	X	X	X	N/A	X	X	N/A	N/A	6 ft. (1.8 m)
	GL4204	4.2	X	X	X	N/A	X	X	N/A	N/A	
	GL5604	5.6	X	X	X	X	X	X	X	X	

(1) LPCB Ref. No. 147c/05



## TABLE B: COVER PLATE PART NUMBERS

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.	325437-W	325435	325442-W	325440	325437-B	325442-B	325438	325443

## CARE AND MAINTENANCE

Prior to installation, it is important to read and follow the "Sprinkler Caution" sheet (GFS-840) included within each box of sprinklers. This sheet is available on Globe's web site ([www.globesprinkler.com](http://www.globesprinkler.com)).

Store sprinklers in a cool, dry place. Exposure to extreme heat will damage the thermal sensing element, possibly resulting in premature activation. Avoid direct sunlight.

Replace any sprinkler that shows any corrosion, damage, or loss of liquid from the glass bulb.

Do not attempt to paint or alter the sprinkler's coating or cover plate in any manner after leaving the manufacturing plant.

Do not attach wiring, ropes, decorations or fixtures to a sprinkler.

Absence of an escutcheon, used to cover a ceiling hole, may delay sprinkler operation in a fire situation.

It is the owner's responsibility for inspection, testing and maintenance of the fire sprinkler system with all components and devices in accordance with the National Fire Protection Association Pamphlet 25 as well as any other requirements as set forth by the local Authority Having Jurisdiction (AHJ).



**FIGURE 3: CONCEALED WRENCH**  
1/2" NPT P/N 325391

## ORDERING INFORMATION

### SPECIFY

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

### GL2804

SPRINKLERS	PART NUMBER
135°F (57°C) . . . . .	280413501
155°F (68°C) . . . . .	280415501
175°F (79°C) . . . . .	280417501
200°F (93°C) . . . . .	280420001

### GL4204

SPRINKLERS	PART NUMBER
135°F (57°C) . . . . .	420413501
155°F (68°C) . . . . .	420415501
175°F (79°C) . . . . .	420417501
200°F (93°C) . . . . .	420420001

### GL5604

SPRINKLERS	PART NUMBER
135°F (57°C) . . . . .	560413501
155°F (68°C) . . . . .	560415501
175°F (79°C) . . . . .	560417501
200°F (93°C) . . . . .	560420001

### COVER PLATES

SEE TABLE B

- WRENCH
  - Quantity • Part Number
  - 1/2" NPT Concealed . . . . . 325391
- PROTECTIVE CAP
  - Quantity • Part Number 327119

## 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).

