

# SERIES GL-SR/SW

## STANDARD COVERAGE, STANDARD RESPONSE

### VERTICAL, HORIZONTAL, RECESSED SIDEWALL SPRINKLER

#### K-FACTOR: 2.8, 4.2, 5.6, 8.0

#### GENERAL DESCRIPTION

Globe GL-SR/SW sprinklers are Listed Standard Response sprinklers which utilize a 5mm frangible glass bulb as the thermosensitive operating element. These sprinklers are available in horizontal sidewall, vertical sidewall, and recessed horizontal sidewall orientations. 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; FM 2-0). These sprinklers are available in various K-factors, temperatures and finishes as shown. Recessed escutcheons with either 1/2" or 3/4" vertical adjustment are available (See Approvals Table for appropriate sprinkler/escutcheon combinations and Listings). Some pendent models are additionally available with a special "Seismic" escutcheon to meet the IBC-ASCE/SEI 7 requirements for use in seismic design categories C, D & E.

#### OPERATION

Upon exposure to heat such as from a fire, 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 seat assembly, and discharge of water from the sprinkler.

#### TECHNICAL DATA

##### SIN

- HSW: GL2870, GL4270, GL5670, GL5671, GL8171
- VSW: GL5675, GL8176

##### Approvals

- cULus • FM • LPCB • CE
- See Approval Tables

##### Maximum Working Pressure

- 175 psi (12 bar)

##### Minimum Operating Pressure

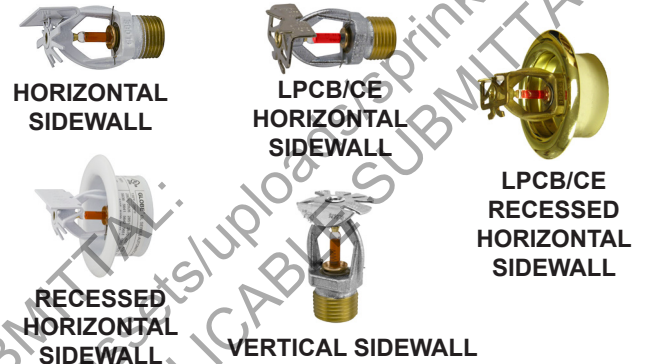
- 7 psi (48 kPa)

##### Temperature Rating

- See Approval Tables

##### Materials of Construction

- Frame - bronze • Deflector - brass • Screw - brass
- Lodgement Wire - stainless steel • Bulb seat - copper
- Spring - nickel alloy • Seal - teflon
- Bulb - glass with glycerin solution, 5mm
- Escutcheon Assembly - carbon steel



#### FINISHES AND ACCESSORIES

##### Finishes

- Factory Bronze • Chrome • White Polyester
- Black Polyester - special order
- Wax Coated - special order

##### Escutcheons

- Brass • Chrome • White Polyester • Black Polyester

##### Wrenches

- Standard • Recess • 1/2" NPT • 3/4" NPT

##### NOTE:

Corrosion resistant coatings, where applicable, are utilized to extend the life of copper alloy sprinklers beyond that which would otherwise be expected when exposed to corrosive atmospheres. Although corrosion resistant coated sprinklers have passed the standard corrosion tests of the applicable approval agencies, the testing is not representative of all possible corrosive atmospheres. Consequently, it is recommended that the end user be consulted with respect to the suitability of these coatings for any given corrosive environment. The effects of ambient temperature, concentration of chemicals, humidity, and gas/chemical velocity, should be considered, as a minimum, along with the corrosive nature of the chemical to which the sprinklers will be exposed.

##### NOTE:

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

## 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; 20 ft.-lb. (26.8 Nm) to 3/4 inch NPT 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.*

## CARE AND MAINTENANCE

Prior to installation, it is important to read and follow the "Sprinkler Caution" sheet included within each box of sprinklers. This sheet (GFS-840) 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 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 1: STANDARD SPRINKLER WRENCH**

1/2" NPT P/N 325390

3/4" NPT P/N 312366



**FIGURE 2: RECESSED SPRINKLER WRENCH**

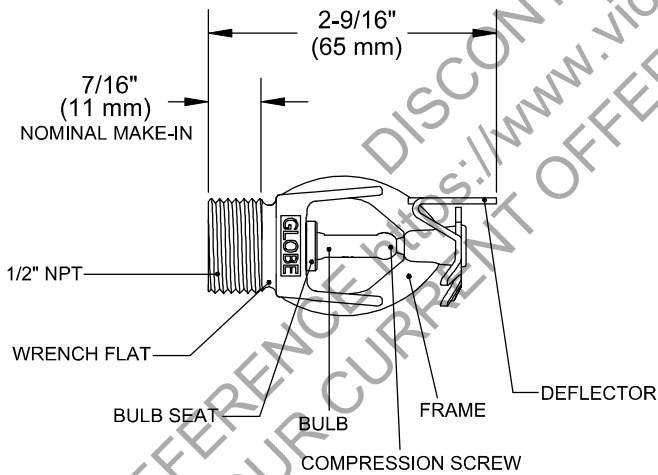
1/2" NPT P/N 325391

3/4" NPT P/N 325401

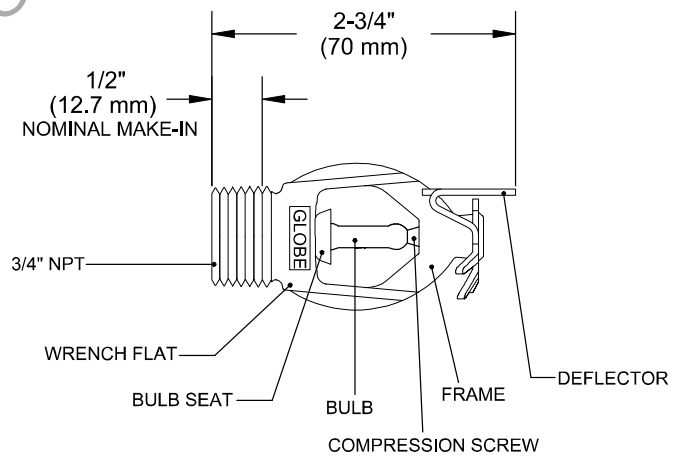
**TABLE A: HORIZONTAL SIDEWALL SPRINKLERS**

SIN	GL2870 <sup>(1) (2)</sup>	GL4270 <sup>(1) (2)</sup>	GL5670 <sup>(1) (2)</sup>	GL5671	GL8171 <sup>(1) (2) (3)</sup>
ORIENTATION	HSW	HSW	HSW	HSW	HSW
K-FACTOR	2.8 (40 metric)	4.2 (60 metric)	5.6 (80 metric)	5.6 (80 metric)	8.0 (115 metric)
NPT	1/2" (15mm)	1/2" (15mm)	1/2" (15mm)	1/2" (15mm)	3/4" (20mm)
HAZARD	L.H.	L.H.	L.H./O.H.	L.H./O.H.	L.H./O.H.
cULus	135°F (57°C) 155°F (68°C) 175°F (79°C) 200°F (93°C) 286°F (141°C)	135°F (57°C) 155°F (68°C) 175°F (79°C) 200°F (93°C) 286°F (141°C)	135°F (57°C) 155°F (68°C) 175°F (79°C) 200°F (93°C) 286°F (141°C)	NA	135°F (57°C) 155°F (68°C) 175°F (79°C) 200°F (93°C) 286°F (141°C)
<b>NOTE:</b> 500°F (260°C) available upon request without approvals.					
FM	NA	NA	135°F (57°C) 155°F (68°C) 175°F (79°C) 200°F (93°C) 286°F (141°C)	NA	NA
LPCB Ref. No. 147c/04	NA	NA	NA	135°F (57°C) 155°F (68°C) 175°F (79°C) 200°F (93°C) 286°F (141°C) 360°F (182°C)	135°F (57°C) 155°F (68°C) 175°F (79°C) 200°F (93°C) 286°F (141°C)
CE	NA	NA	NA	135°F (57°C) 155°F (68°C) 175°F (79°C) 200°F (93°C) 286°F (141°C)	135°F (57°C) 155°F (68°C) 175°F (79°C) 200°F (93°C) 286°F (141°C)

- (1) AVAILABLE AS cULus LISTED CORROSION RESISTANT WITH POLYESTER COATING
- (2) AVAILABLE AS cULus LISTED CORROSION RESISTANT WITH WAX COATING (155°F, 200°F.)
- (3) AVAILABLE AS cULus LISTED CORROSION RESISTANT WITH POLYESTER COATING (155°F, 200°F.)



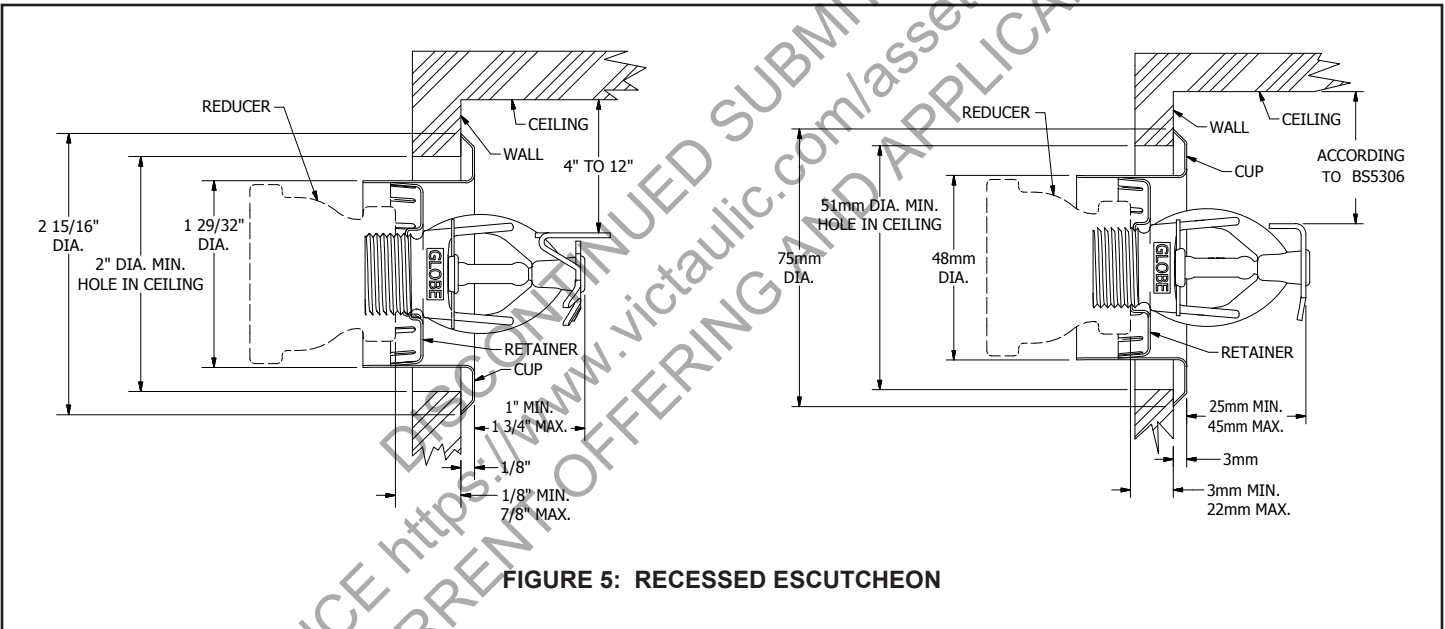
**FIGURE 3: SERIES GL-SR/SW  
HORIZONTAL SIDEWALL SPRINKLERS  
GL2870, GL4270, GL5670, GL5671**



**FIGURE 4: SERIES GL-SR/SW  
HORIZONTAL SIDEWALL SPRINKLERS  
GL8171**

**TABLE B: RECESSED HORIZONTAL SIDEWALL SPRINKLERS**

SIN	GL2870	GL4270	GL5670	GL5671	GL8171
ORIENTATION	HSW	HSW	HSW	HSW	HSW
K-FACTOR	2.8 (40 metric)	4.2 (60 metric)	5.6 (80 metric)	5.6 (80 metric)	8.0 (115 metric)
NPT	1/2" (15mm)	1/2" (15mm)	1/2" (15mm)	1/2" (15mm)	3/4" (20mm)
HAZARD	L.H.	L.H.	L.H./O.H.	L.H./O.H.	L.H./O.H.
cULus	135°F (57°C) 155°F (68°C) 175°F (79°C) 200°F (93°C) 286°F (141°C)	135°F (57°C) 155°F (68°C) 175°F (79°C) 200°F (93°C) 286°F (141°C)	135°F (57°C) 155°F (68°C) 175°F (79°C) 200°F (93°C) 286°F (141°C)	NA	NA
NOTE: 500°F (260°C) available upon request without approvals.					
LPCB Ref. No. 147c/04	NA	NA	NA	135°F (57°C) 155°F (68°C) 175°F (79°C) 200°F (93°C) 286°F (141°C) 360°F (182°C)	NA
CE	NA	NA	NA	135°F (57°C) 155°F (68°C) 175°F (79°C) 200°F (93°C) 286°F (141°C)	NA



**FIGURE 5: RECESSED ESCUTCHEON**

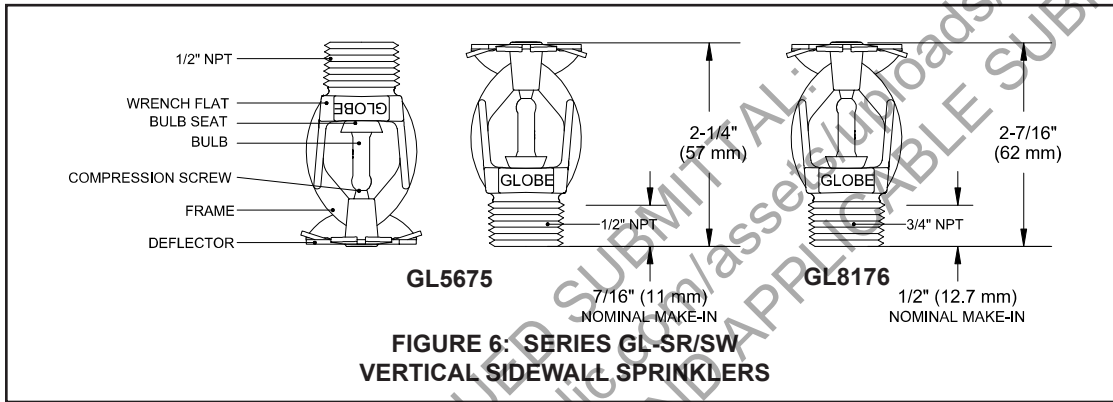
**TABLE C: ESCUTCHEONS**

3/4" ADJUSTABLE FRICTION FIT RECESSED ESCUTCHEON		
FINISH	1/2" NPT	3/4" NPT
Chrome	325422	325423
Brass	325424	325420
White Polyester	325426-W	325427-W
Black Polyester	325426-B	325427-B
Stainless Steel	326140	NA
1/2" ADJUSTABLE FRICTION FIT RECESSED ESCUTCHEON		
FINISH	1/2" NPT	3/4" NPT
Chrome	332071	326040
Brass	332072	326041
White Polyester	332073-W	326042-W
Black Polyester	332073-B	326042-B

**TABLE D: VERTICAL SIDEWALL SPRINKLERS**

SIN	GL5675 <sup>(1)</sup>	GL8176
ORIENTATION	VSW	VSW
K-FACTOR	5.6 (80 metric)	8.0 (115 metric)
NPT	1/2" (15mm)	3/4" (20mm)
HAZARD	L.H.	L.H.
UL	135°F (57°C)	135°F (57°C)
	155°F (68°C)	155°F (68°C)
	175°F (79°C)	175°F (79°C)
	200°F (93°C)	200°F (93°C)
	286°F (141°C)	286°F (141°C)
	360°F (182°C)	360°F (182°C)
500°F (260°C) available upon request without approvals		

(1) AVAILABLE AS cULus LISTED CORROSION RESISTANT WITH POLYESTER COATING.



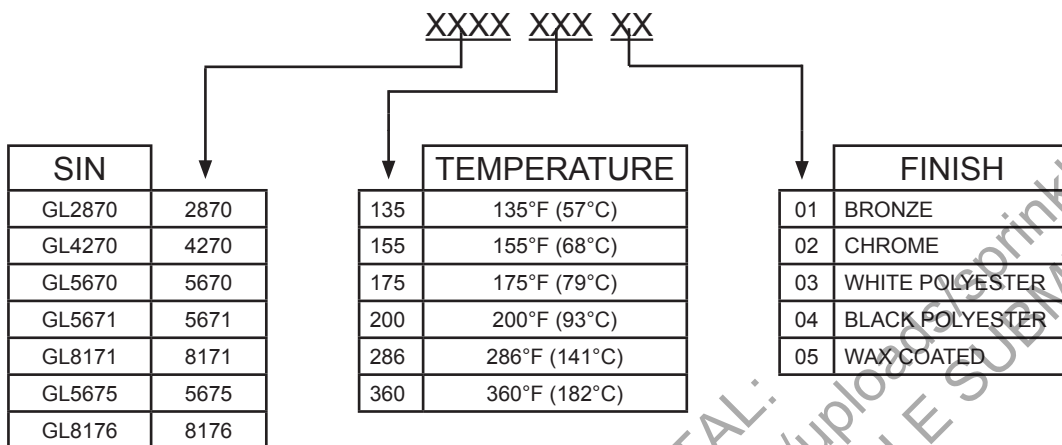
**TABLE E: RECESSED VERTICAL SIDEWALL SPRINKLERS**

SIN	GL5675 <sup>(1)</sup>	GL8176
ORIENTATION	VSW	VSW
K-FACTOR	5.6 (80 metric)	8.0 (115 metric)
NPT	1/2" (15mm)	3/4" (20mm)
HAZARD	L.H.	L.H.
UL	135°F (57°C)	135°F (57°C)
	155°F (68°C)	155°F (68°C)
	175°F (79°C)	175°F (79°C)
	200°F (93°C)	200°F (93°C)
	286°F (141°C)	286°F (141°C)
	360°F (182°C)	360°F (182°C)
500°F (260°C) available upon request without approvals		

(1) AVAILABLE AS cULus LISTED CORROSION RESISTANT WITH POLYESTER COATING.

**TABLE F: PART NUMBER SELECTION**

PART NUMBER  
SIN + TEMPERATURE + FINISH



*Note: All combinations may not be available.  
Refer to Listing / Approval Tables.*

**ORDERING INFORMATION**

**SPECIFY**

- **SPRINKLER**
  - Quantity • SIN • Orientation • Orifice • NPT • Temperature Rating
  - Finish • Part Number (See TABLE F)
- **ESCUTCHEON**
  - Quantity • Finish • Part Number (See TABLE C)
- **WRENCH**
  - Quantity • Part Number

1/2" NPT Standard	325390
3/4" NPT Standard	312366
1/2" NPT Recess	325391
3/4" NPT Recess	325401

**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).

