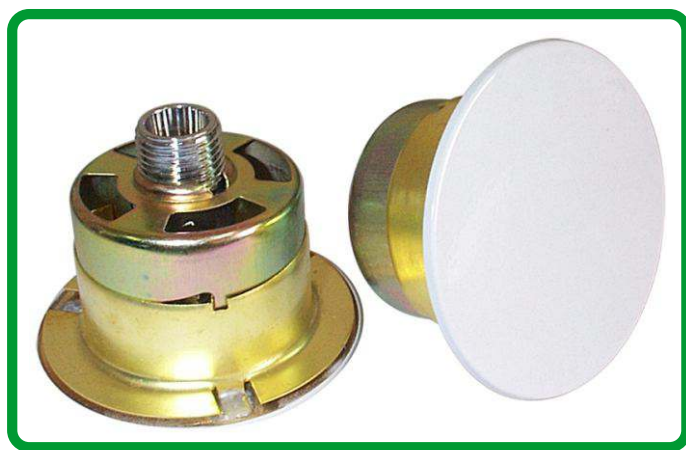


Concealed Pendent Sprinklers

GF80SC



GF80QC

GENERAL DESCRIPTION

The GF80SC/GF80QC Standard/Quick Response Concealed Pendent Sprinklers (Ref. Figure A) are automatic sprinklers of the frangible bulb type. They are "standard/quick response – standard orifice spray sprinkler" intended for use in fire sprinkler systems designed in accordance with the standard installation rules recognized by the applicable Listing or Approval agency (e.g., UL Listing is based on NFPA 13 requirements). The Concealed Pendent Sprinklers all produce a hemispherical water distribution pattern below the deflector.

This model sprinkler includes a Cover Plate Assembly that conceals the sprinkler operating components above the ceiling. The Cover Plate Assembly, which installs onto the Sprinkler/ Mounting Cup Assembly, consists of a Cover Plate that is soldered to an Enclosure at three equidistant locations around their peripheries. The Ejection Spring is located between the flange of the Enclosure and the Cover Plate, to ensure separation of the two pieces when the solder melts.

A Label located on the Cover Plate Assembly indicates the nominal temperature of the sprinkler and the nominal diameter of the Glass Bulb.

The small Cover Plate is flat with a low profile that blends in with the ceiling for an aesthetically pleasing appearance. Standard finishes for the Cover Plate are satin chrome plated and painted white. Other factory applied painted finishes for the Cover Plate is available on special order.

The separable two-piece design of the Cover Plate and Mounting Cup Assemblies allows installation of the sprinklers and pressure testing of the fire protection system prior to installation of a suspended ceiling or application of the finish coating to a fixed ceiling. The separable design also permits removal of suspended ceiling panels for access to building service equipment, without having to first shut down the fire protection system and remove sprinklers.

Also, the separable two- piece design of the GF80SC/ GF80QC Concealed Sprinkler provides for 1/6 inch (4.2mm) of vertical adjustment, to reduce the accuracy to which the length of fixed pipe drops to the sprinklers must be cut.

TECHNICAL SPECIFICATIONS

Model & Sprinkler I.D. No. ¹	GF80SC	GF80QC
Style	Concealed Pendent	
Response & Bulb Nominal Dia.	Standard Response, Ø5mm	Quick Response, Ø3mm
Thread Size [Optional]	NPT1/2 or R1/2 ²	
Nominal Orifice Size	1/2 Inch	
Nominal K-Factor ¹	5.6 (U.S.) / 80 (metric)	
Max. Working Pressure	175 psig / 1.2 MPa (12 bar)	
Factory Hydrostatic Test	100% @ 500psig (3.4 MPa)	
Min. Operating Pressure	7 psig / 0.048 MPa (0.48 bar)	
Sprinkler Finish [Optional]	Natural Brass or Chrome Plated	
Cover Plate Finish	Painted White or Chrome Plated or Color Coated In Any Color	
Listings and Approvals ³	UL(United States)	

DISCHARGE COEFFICIENT

Model GF80SC/GF80QC Concealed Pendent Sprinklers are rated for use at a maximum service pressure of 175 psig (12 bar). The nominal discharge curve plotted in Figure B represents the flow "Q" in GPM (LPM) as determined by the following formula:

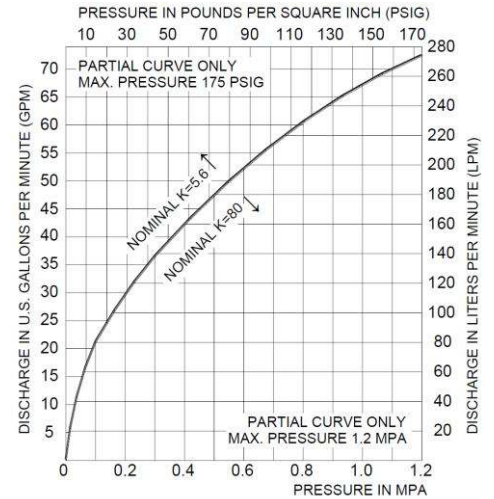
$$Q = K (P)^{0.5}$$

Where:

Q — Flow, GPM (LPM)

K — Discharge Coefficient, K=5.6 (80)

P — Discharge Pressure, psig (bar)



SPRINKLER MATERIALS

Frame	Bronze Forging UNS-C87400
Deflector	Brass UNS-28000
Set Screw	Brass UNS-28000
Button	Brass UNS-28000
Glass Bulb	Glass with Glycerin Solution, JOB® G5 for GF80SC JOB® F3 for GF80QC
Spring	Stainless Steel
Seal	Teflon® Tape
Mounting Cup	Low Carbon Sheet Steel UNS-G10080
Enclosure	Brass UNS-C28000
Cover Plate	Brass UNS-C28000
Ejection Spring	Stainless Steel UNS-S30452
Label	Mylar (Sticky-back)

Accessories

Order the following accessories, as applicable:

- Type T-1 Wrench: SWR

Weight

The nominal weights are as follows.

- 1/2" Orifice Model GF80SC/ GF80QC Concealed - 6.0 ozs. (170 gr)
- T-1 Sprinkler Wrench - 18 ozs. (510 gr)

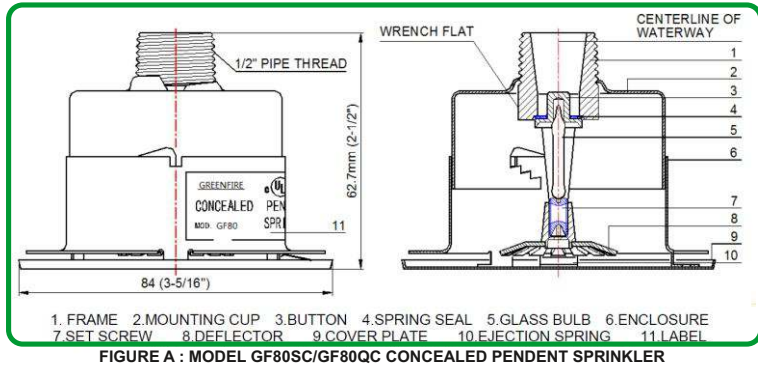


FIGURE A : MODEL GF80SC/GF80QC CONCEALED PENDENT SPRINKLER

AVAILABLE TEMPERATURE RATING

Temp. Classification	Ordinary	Ordinary	Intermediate	Intermediate
Nominal Temp. Rating	135°F / 57°C	155°F / 68°C	175°F / 79°C	200°F / 93°C
Max. Ambient Temp. Allowed ⁵	115°F / 46°C	135°F / 57°C	155°F / 68°C	180°F / 82°C
Max. Recommended Ambient Temp. ⁶	100°F / 38°C	100°F / 38°C	150°F / 65°C	150°F / 65°C
Glass Bulb Color ⁷	Orange	Red	Yellow	Green

Footnotes:

¹ Sprinkler I.D. Nos. and nominal U.S. K-factors provided in accordance with NFPA 13.

² The pipe thread connections accord with ISO7/1.

³ This table shows the listings and approvals available at the time of printing. Check with the manufacturer for any additional approvals.

⁴ UL Listed for both Light-Hazard and Ordinary-Hazard occupancies.

⁵ Based on National Fire Prevention and Control Administration Contract No. 7-34860.

⁶ Based on NFPA 13. Other limits may apply depending on fire loading, sprinkler location, and other requirements of the Authority Having Jurisdiction. Refer to specific installation standards.

⁷ The temperature rating is stamped on the deflector or adjacent to orifice seat on frame.