

Upright and Pendent Sprinklers

GF80SU



GF80QU

GF80SP



GF80QP

GENERAL DESCRIPTION

The GF80SU/GF80QU Standard/Quick Response Upright and GF80SP/GF80QP Standard/Quick Response 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 Upright, Pendent Sprinklers all produce a hemispherical water distribution pattern below the deflector.

TECHNICAL SPECIFICATIONS

| Model & Sprinkler I.D. No. | GF80SU | GF80QU | GF80SP | GF80QP |
|------------------------------|---------------------------------------------------------------------------------------------------------------------------|----------------------|-------------------------|----------------------|
| Style | Upright | | Pendent | |
| Bulb Nominal Dia. & Response | Ø5mm, Standard Response | Ø3mm, Quick Response | Ø5mm, Standard Response | Ø3mm, Quick Response |
| Thread Size [Optional] | NPT1/2 or R1/2 | | | |
| Nominal Orifice Size | 1/2 Inch | | | |
| Nominal K-Factor | 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] | <input type="checkbox"/> Natural Brass <input type="checkbox"/> Chrome Plated <input type="checkbox"/> White Color Coated | | | |
| Escutcheon Finish | <input type="checkbox"/> Chrome Plated or <input type="checkbox"/> Color Coated In Any Color | | | |
| Listings and Approvals | UL Listed | | | |

DISCHARGE COEFFICIENT

Model GF80SU/GF80QU Upright and Model GF80SP/GF80QP Pendent Sprinklers are rate 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)

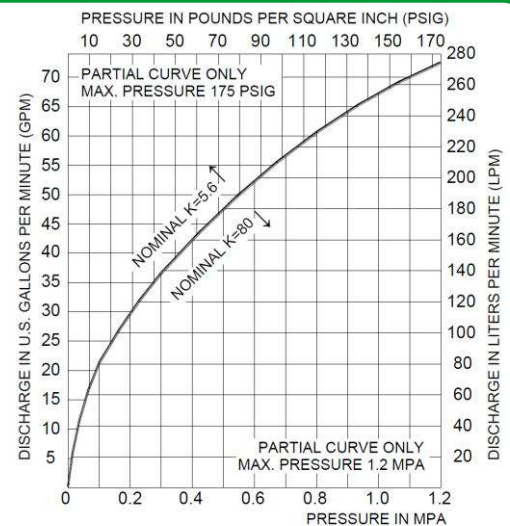


FIGURE B : NOMINAL DISCHARGE CURVE

SPRINKLER MATERIALS

| | |
|--------------------------------|-------------------------------------------------------------------------------------------|
| Frame | Brass Casting DZR |
| Deflector | Brass UNS-28000 |
| Glass Bulb | Glass with Glycerin Solution, JOB® G5 for GF80SU/ GF80SP JOB® F3 for GF80QU/ GF80QP |
| Set Screw | Brass UNS-28000 |
| Button | Brass UNS-28000 |
| Spring | Stainless Steel |
| Seal | Teflon® Tape |
| Standard Escutcheon (Type E-1) | Cold Rolled Steel |

Accessories

Order the following accessories, as applicable:

- Type E-1 1/2" Standard Escutcheon with chromate finishes: E1C
- Type E-1 1/2" Standard Escutcheon with white painted finish: E1W
- Type T-1 Wrench: SWR

Weight

The nominal weights are as follows.

- 1/2" Orifice Model GF80SU/ GF80QU/GF80QP/GF80SP - 2.8 ozs. (80 gr)
- E-1 Standard Escutcheon - 0.6 ozs. (18 gr)
- T-1 Sprinkler Wrench - 18 ozs. (510 gr)

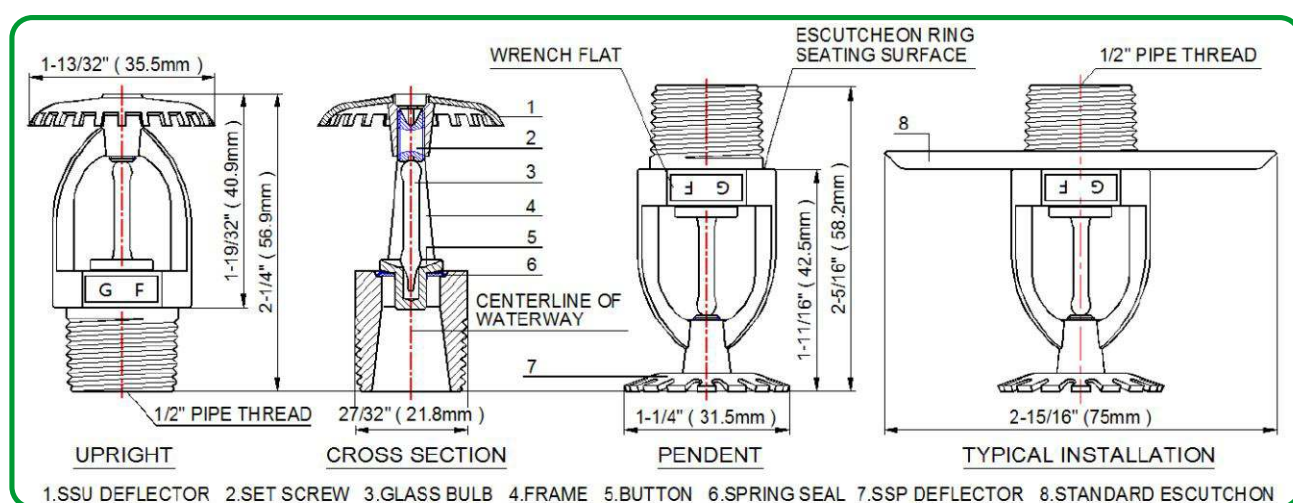


FIGURE A : MODEL GF80SU/GF80QU UPRIGHT & MODEL GF80SP/GF80QP PENDENT SPRINKLERS

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.