

Reliable®

F1FR80VdS Series Quick-Response Sprinklers

K-factor 8.0 (115)

Features

- Standard coverage quick-response sprinklers
- Upright and pendent orientations
- Low profile, compact design
- Available in a wide variety of finishes

Product Description

Reliable Model F1FR80VdS series sprinklers are quick-response standard spray automatic fire sprinklers utilizing a sensitive 3mm glass bulb thermal element.

This sprinkler is provided with ISO 7-1 R $\frac{1}{2}$ threads.

Pendent sprinklers may be installed exposed, or surface mounted using escutcheons such as the Reliable Models B, C, or HB (reference Technical Bulletin 204). When installed recessed, the Model F1FR80VdS series sprinklers are specifically listed with and may only be installed with listed Reliable recessed escutcheons. Refer to the technical information on the following pages for specific listings for recessed installations and refer to Figure 3 for dimensional information.

Table A provides a summary of the approvals and availability of specific Model F1FR series sprinkler configurations. Additional technical information for each sprinkler model is provided on the following pages.



Model F1FR80VdS Upright Sprinkler



Model F1FR80VdS Pendent Sprinkler

Note: Not all versions of the product shown.

Sprinkler Summary

Table A

Sprinkler Model	K-Factor gpm/psi ^{1/2} (lpm/bar ^{1/2})	Orientation	Listings & Approvals	Max. Working Pressure psi (bar)
F1FR80VdS	8.0 (115)	Upright	VdS, CE	175 (12)
		Pendent		175 (12)

Model F1FR80VdS Upright Sprinkler

Technical Specifications

Style: Upright
Threads: ISO 7-1 R1/2
Nominal K-Factor: 8.0 (115)
Max. Working Pressure:
 175 psi (12 bar)

Material Specifications

Thermal Sensor: 3 mm Glass Bulb
Sprinkler Frame: Brass Alloy
Cap: Bronze Alloy
Sealing Washer: Nickel with PTFE
Load Screw: Copper Alloy
Deflector: Brass Alloy

Sprinkler Finishes

(See Table B)

Sensitivity

Quick response

Temperature Ratings

135°F (57°C)
 155°F (68°C)
 175°F (79°C)
 200°F (93°C)
 286°F (141°C)

Sprinkler Wrenches

Model W2

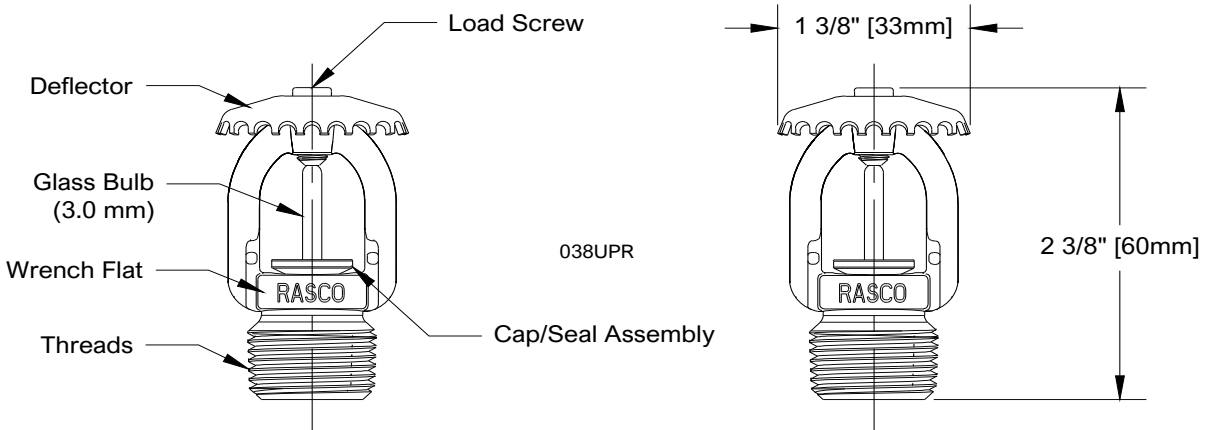
Listings and Approvals

VdS
 CE



Model F1FR80VdS Upright Sprinkler Components and Dimensions

Figure 1



Model F1FR80VdS Pendent Sprinkler

Technical Specifications

Style:

Pendent
Recessed Pendent⁽¹⁾

Threads: ISO 7-1 R1/2

Nominal K-Factor: 8.0 (115)

Max. Working Pressure:
175 psi (12 bar)

Material Specifications

Thermal Sensor: 3 mm Glass Bulb

Sprinkler Frame: Brass Alloy

Cap: Bronze Alloy

Sealing Washer: Nickel with PTFE

Load Screw: Copper Alloy

Deflector: Brass Alloy

Sprinkler Finishes

(See Table B)

Sensitivity

Quick response

Temperature Ratings

135°F (57°C)

155°F (68°C)

175°F (79°C)

200°F (93°C)

286°F (141°C)

Recessed Escutcheons

Model F1

Model F2

Model FP

Sprinkler Wrenches

Model W2 (pendent)

Model W4 (recessed)

Listings and Approvals

VdS

CE

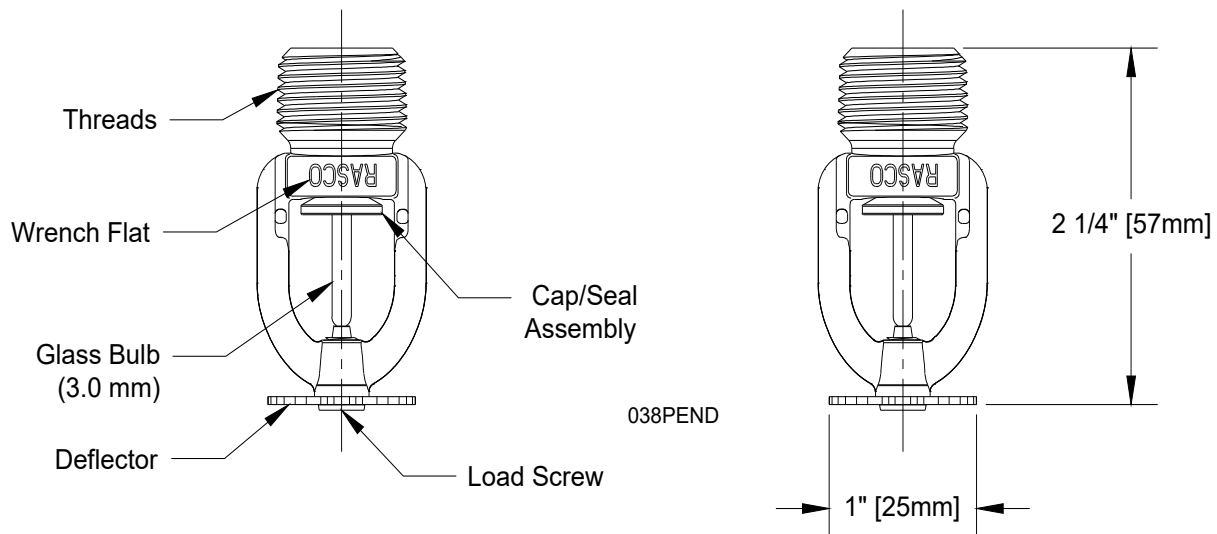


Notes:

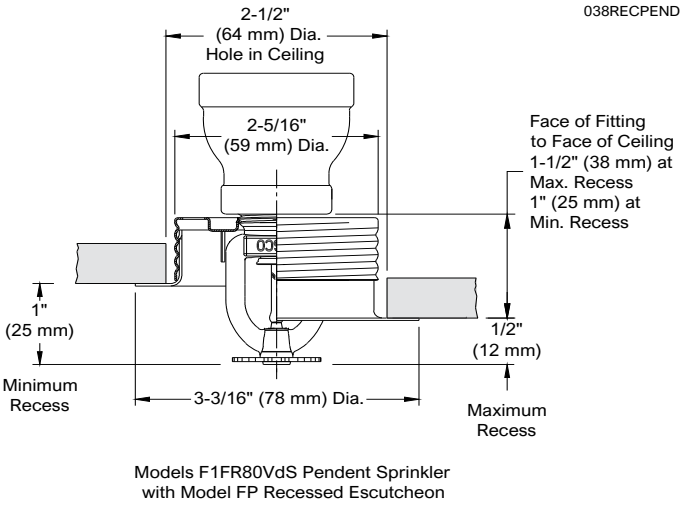
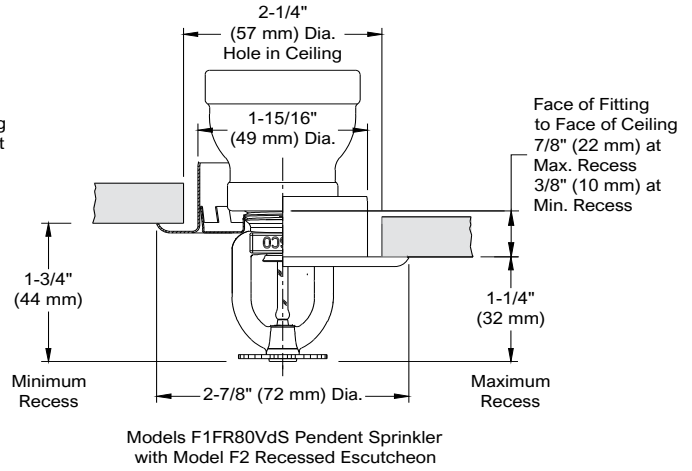
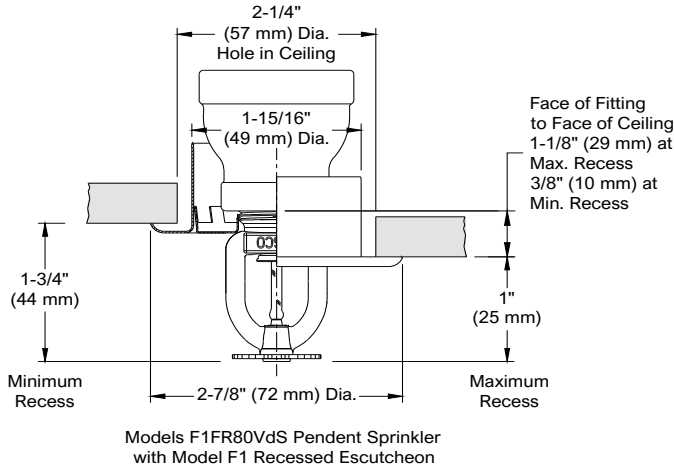
1. Not approved by VdS for use in recessed installations.

Model F1FR80VdS Pendent Sprinkler Components and Dimensions

Figure 2



Note: Please refer to Figure 3 for recessed installation.



Wrenches



Model W2 (upright, pendent)



Model W4
(recessed pendent)

Finishes⁽¹⁾⁽²⁾

Table B

Standard Finishes		Special Application Finishes	
Sprinkler	F1, F2 and FP ⁽³⁾ Escutcheons	Sprinkler	F1, F2 and FP ⁽³⁾ Escutcheons
Bronze	Brass	Bright Brass ⁽⁴⁾	Bright Brass
Chrome	Chrome	Black	Black
White	White	Off White	Off White
		Satin Chrome	Satin Chrome

Notes:

1. Other finishes and colors are available on special order. Consult your Reliable sales representative for details.
2. Paint or any other coating applied over the factory finish will void all approvals and warranties.
3. The Model FP assembly consists of a sprinkler mounted in a galvanized steel cup with a finished trim ring.
4. For 200°F (93°C) maximum temperature rated sprinklers only.

Installation

Model F1FR Series sprinklers must be installed in accordance with NFPA13 and the requirements of all applicable authorities having jurisdiction. Model F1FR Series sprinklers must be installed with the Reliable sprinkler installation wrench identified in this Bulletin. Any other wrench may damage the sprinkler. The Models W2 and W4 wrenches have two sets of jaws. Use the smallest set of jaws that fit on the wrench flats of the sprinkler. A leak tight sprinkler joint can be obtained with a torque of 8 to 18 lb-ft (11 to 24 N-m). Do not tighten sprinklers over the maximum recommended installation torque. Exceeding the maximum recommended installation torque may cause leakage or impairment of the sprinkler.

Glass bulb sprinklers have orange bulb protectors or protective caps to minimize bulb damage during shipping, handling and installation. Reliable sprinkler installation wrenches are designed to install sprinklers with bulb protectors in place. Remove the bulb protector at the time when the sprinkler system is placed in service for fire protection. Removal of the bulb protector before this time may leave the bulb vulnerable to damage. Remove bulb protectors by undoing the clasp by hand. Do not use tools to remove bulb protectors.

Maintenance

Reliable Model F1FR series sprinklers should be inspected and the sprinkler system maintained in accordance with NFPA 25, as well as the requirements of any Authorities Having Jurisdiction.

Prior to installation, sprinklers should remain in the original cartons and packaging until used. This will minimize the potential for damage to sprinklers that could cause improper operation or non-operation.

Do not clean sprinklers with soap and water, ammonia liquid or any other cleaning fluids. Remove dust by gentle vacuuming without touching the sprinkler.

Replace any sprinkler which has been painted (other than factory applied). A stock of spare sprinklers should be maintained to allow quick replacement of damaged or operated sprinklers. Failure to properly maintain sprinklers may result in inadvertent operation or non-operation during a fire event.

Guarantee

For the guarantee, terms, and conditions, visit www.reliablesprinkler.com.

Ordering Information

Specify the following when ordering:

Model

- F1FR80VdS

Deflector/Orientation

- Upright
- Pendent

Temperature Rating

- See sprinkler technical specifications

Sprinkler Finish

- See Table B

Recessed Escutcheon (Packaged Separately)

- F1
- F2
- FP

Escutcheon Finish

- See Table B

Sprinkler Wrench

- Model W2 (upright and pendent)
- Model W4 (recessed)

Note: The Model F1FR80VdS pendent sprinkler is not listed for recessed installations.