



F1FR40 (VdS) Standard Spray Sprinkler

K-factor 4.0 (57)

Features

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

Product Description

The Reliable Model F1FR40 is a quick-response, standard spray pendent automatic fire sprinkler utilizing a sensitive 3.0 mm glass bulb thermal element.

The Model F1FR40 pendent sprinkler 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 sprinkler is specifically listed and may only be installed with listed escutcheons. Refer to the technical information on the following pages for specific listings for recessed sprinklers, and refer to Figure 2 for dimensional information.

Table A provides a summary of the approvals and availability for the Model F1FR40 sprinkler.

Important! Reliable fire sprinklers must be handled, stored, and installed in accordance with the guidelines in Caution Sheet 310 and this bulletin. Failure to follow these instructions may result in unintended operation or nonoperation of the fire protection system.



Model F1FR40 Pendent



Model F1FR40 Pendent Recessed, F1 Escutcheon (F2 escutcheon similar)



Model F1FR40 Pendent Recessed, FP Escutcheon

Note: Not all versions of the product are shown.

F1FR Series Sprinklers Summary

Table A

Sprinkler Model	K-Factor gpm/psi ^{1/2} (lpm/bar ^{1/2})	Orientation	Listings & Approvals	Max. Working Pressure psi (bar)	Sprinkler Identification Number (SIN)
F1FR40	4.0 (57)	Pendent	VdS	175 psi (12 bar)	RA1418

Technical Specifications

Style: Pendent or Recessed Pendent
Threads: 1/2" NPT or ISO 7-R1/2
Nominal K-Factor: 4.0 (57 metric)
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 pendent)

Listings and Approvals

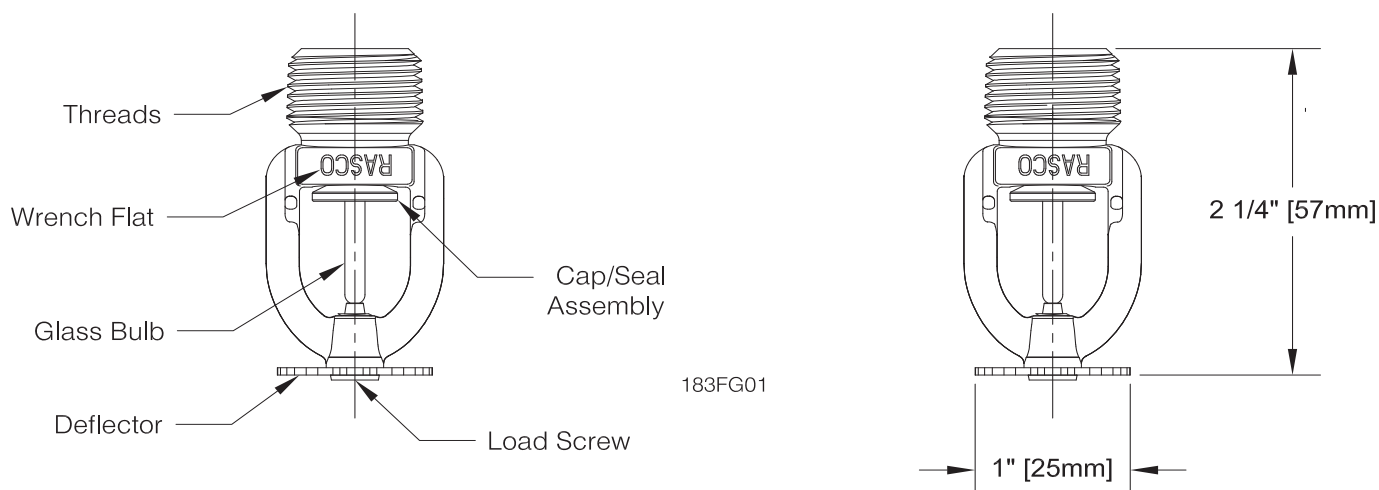
VdS

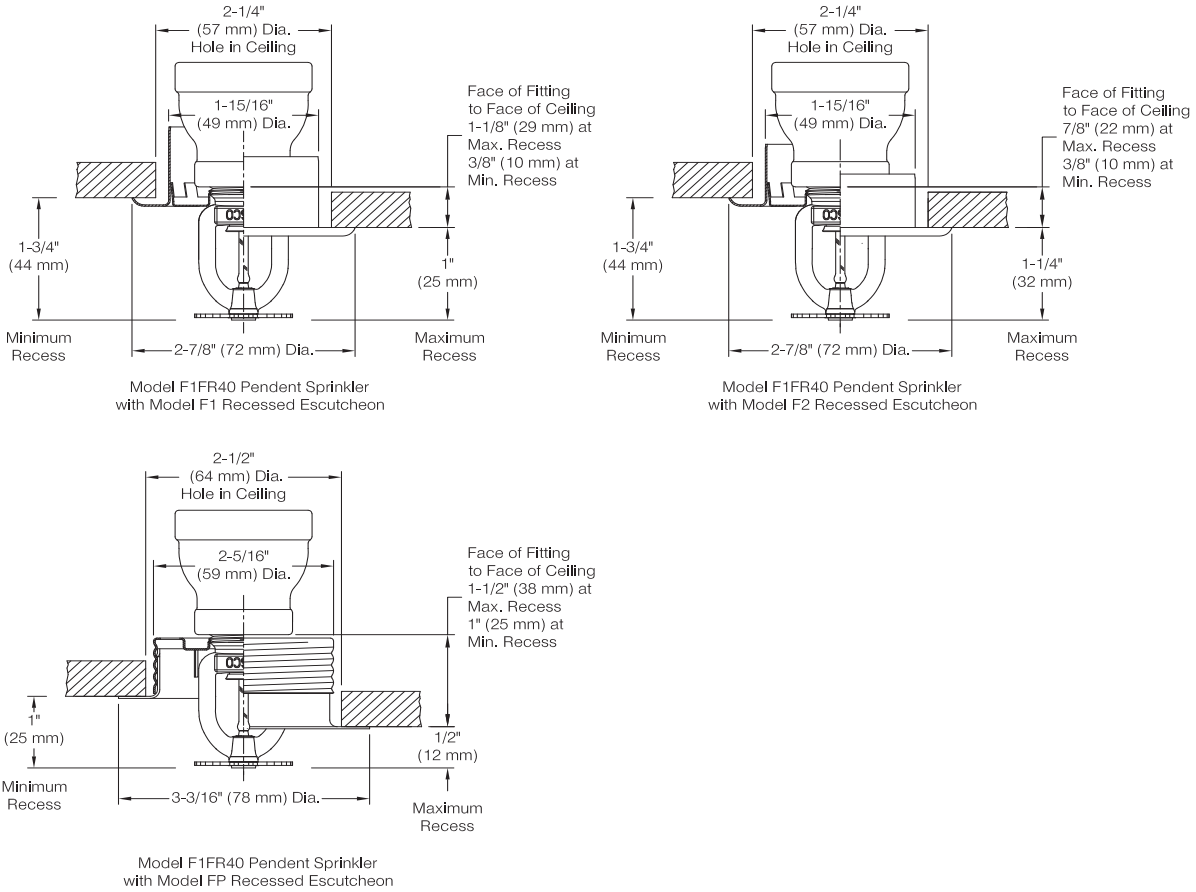


*Note: 286°F (141°C) temperature rated sprinkler not listed for recessed use.

Model F1FR40 Pendent Sprinkler Components and Dimensions

Figure 1





Wrenches



Model W2 (pendent)



Model W4 (recessed pendent)

Installation

Model F1FR Series sprinklers must be installed with the W2 (pendent) or W4 (recessed pendent) Reliable sprinkler installation wrench as 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 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.

Both the Model W2 and W4 wrench have two sets of jaws. Use the smallest set of jaws that fit on the wrench flats of the sprinkler. The Model W4 wrench is used in conjunction with a nominal 1/2" square drive ratchet with a nominal 5" long extension (not provided).

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.

Standard Finishes		Special Application Finishes	
Sprinkler	F1, F2 and FP ⁽³⁾ Escutcheons	Sprinkler	F1, F2 and FP ⁽³⁾ Escutcheons
Bronze	Brass	Electroless Nickel PTFE	Bright Brass
Chrome Plated	Chrome Plated	Bright Brass ⁽⁴⁾	Black Paint
White Polyester	White Polyester	Black Paint	Off White
		Off White	Chrome Dull
		Chrome Dull	

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.

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

F1FR40 Ordering Information
Specify the following when ordering:

- **Deflector/Orientation**
Pendent
Pendent - FP
- **Temperature Rating**
- **Sprinkler Finish**
See Table B
- **Recessed Escutcheon***
F1
F2
FP
- **Escutcheon Finish**
See Table B
- **Sprinkler Wrench**
Model W-2 (pendent)
Model W-4 (recessed pendent)

***Note:** 286°F (141°C) sprinklers are not listed to be used recessed.