

# Reliable®

## Model F1-SS Series Stainless Steel Sprinklers

Standard spray, standard-response

cULus Listed, FM Approved  
VdS Approved, CE Listed

### Features

- Type 316 stainless steel alloy frame, deflector, and cap
- cULus Listed and FM Approved as Corrosion Resistant sprinklers
- Available as Upright, Pendent, or Recessed Pendent sprinklers
- Available with polyester finishes

### Product Description

Model F1-SS series sprinklers are standard spray, standard-response sprinklers intended for installation in accordance with NFPA 13. The sprinklers are cULus Listed and FM Approved as Corrosion Resistant sprinklers and feature a frame, deflector, and cap made of Type 316 stainless steel alloy.

Model F1-SS series sprinklers include upright and pendent sprinklers. Model F1-SS series pendent sprinklers are cULus Listed for installation with Reliable Model F1 and FP recessed escutcheons. The Reliable Model F2 escutcheon is cULus Listed and FM Approved for use with Model F1-SS series sprinklers. Reliable Model B one-piece escutcheons are also available. All escutcheons listed in this bulletin are manufactured Type 316 stainless steel alloy.

All Model F1-SS series sprinklers use a 5 mm glass bulb operating element and beryllium-nickel alloy sealing washer gold plated per MIL-G-45204, Type 3, Class 2 with PTFE tape on both sides.



F1-56SS Upright



F1-80SS Upright



F1-56SS Pendent



F1-80SS Pendent



Model F1  
Recessed Escutcheon



Model F2  
Recessed Escutcheon



Model FP  
Recessed Escutcheon



Model B  
Escutcheon

Table A

Sprinkler Model	Nominal K-Factor gpm/psi <sup>1/2</sup> (l/min/bar <sup>1/2</sup> )	Thread Size NPT or ISO7-1	Sprinkler Identification Number (SIN)
F1-56SS Pendent	5.6 (80)	1/2	RA6414
F1-56SS Upright	5.6 (80)	1/2	RA6424
F1-80SS Pendent	8.0 (115)	3/4	RA6412
F1-80SS Upright	8.0 (115)	3/4	RA6422

**Technical Specifications**

**Style:** Pendant or Recessed Pendant  
**Threads:** 1/2" NPT or ISO 7-1R1/2  
**Nominal K-Factor:** 5.6 (80 metric)  
**Max. Working Pressure:** 175 psi (12 bar)

**Finishes**

See Table B

**Sensitivity**

Standard-response

**Material Specifications**

**Thermal Sensor:** 5 mm glass bulb  
**Frame:** Type 316L stainless steel  
**Sealing Washer:** Beryllium-nickel alloy gold plated per MIL-G-45204, Type 3, Class 2 w/ PTFE tape on both sides.  
**Load Screw:** Type 316 stainless steel  
**Deflector:** Type 316 stainless steel  
**Cap:** Type 316 stainless steel

**Temperature Rating**

135°F (57°C)  
 155°F (68°C)  
 175°F (79°C)  
 200°F (93°C)  
 286°F (141°C)  
 360°F (182°C)  
 500°F (260°C) (cULus only)<sup>(4)</sup>

**Sprinkler Wrench**

Model W2 (pendent)  
 Model W4 (recessed pendant)

**Listings and Approvals**

cULus Listed  
 FM Approved  
 CE Listed (0786-CPR-40330)  
 VdS Approved (G421005)

**Recessed Escutcheons<sup>(1)</sup>**

F1 (cULus Listed)  
 F2 (cULus Listed, FM Approved)  
 FP (cULus Listed)

**Guards and Shields<sup>(2)</sup>**

D-1 Guard (cULus, FM)  
 D-5 Guard & Shield (cULus, FM)  
 S-1 Shield (cULus, FM)  
 C-1 Guard (FM)<sup>(3)</sup>  
 C-5 Guard & Shield (FM)  
 D-4 Guard & Shield (FM)

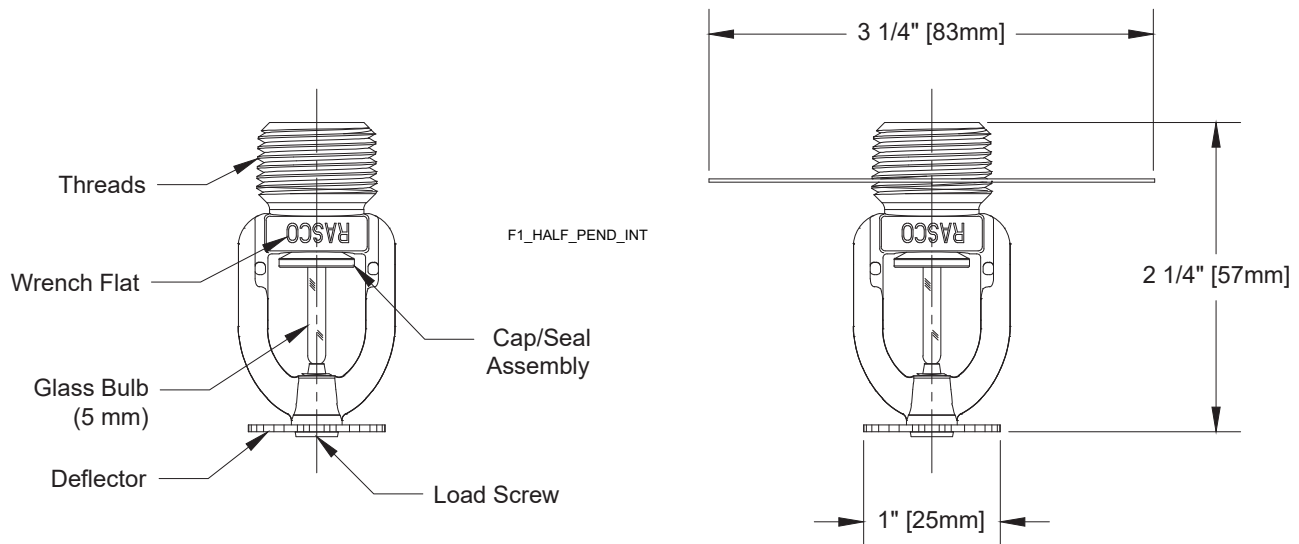


**Notes:**

1. For use only with maximum 200°F temperature rated sprinklers.
2. Guards and shields are formed from steel and are not considered corrosion resistant.
3. The Model C1 guard is available FM approved in Type 316 stainless steel.
4. Unfinished only; 500°F sprinklers not available coated.

**Model F1-56SS Pendant Sprinkler Components and Dimensions**

**Figure 1**



Shown with Optional S-1 Water Shield (Ordered Separately)

**Note:** See page 6 for recessed installation.

**Technical Specifications**

**Style:** Upright  
**Threads:** 1/2" NPT or ISO 7-1R1/2  
**Nominal K-Factor:** 5.6 (80 metric)  
**Max. Working Pressure:** 175 psi (12 bar)

**Finishes**

See Table B

**Sensitivity**

Standard-response

**Material Specifications**

**Thermal Sensor:** 5 mm glass bulb  
**Frame:** Type 316L stainless steel  
**Sealing Washer:** Beryllium-nickel alloy gold plated per MIL-G-45204, Type 3, Class 2 w/ PTFE tape on both sides.  
**Load Screw:** Type 316 stainless steel  
**Deflector:** Type 316 stainless steel  
**Cap:** Type 316 stainless steel

**Temperature Rating**

135°F (57°C)  
 155°F (68°C)  
 175°F (79°C)  
 200°F (93°C)  
 286°F (141°C)  
 360°F (182°C)  
 500°F (260°C) (cULus only)<sup>(3)</sup>

**Listings and Approvals**

cULus Listed  
 FM Approved  
 CE Listed (0786-CPR-40333)  
 VdS Approved (G421007)

**Sprinkler Wrench**

Model W2

**Guards and Shields <sup>(1)</sup>**

D-1 Guard (cULus)  
 D-3 Guard & Shield (cULus)  
 C-1 Guard (FM)<sup>(2)</sup>  
 C-3 Guard & Shield (cULus, FM)

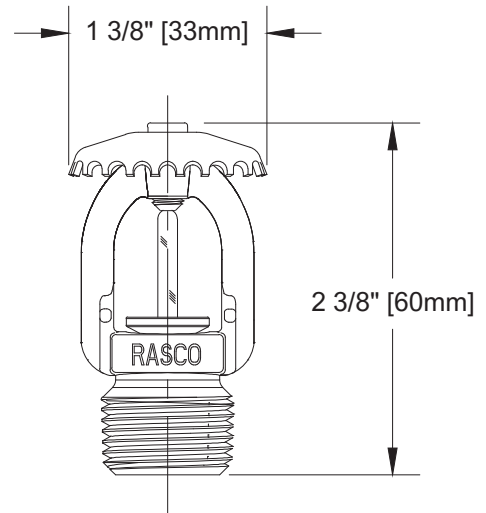
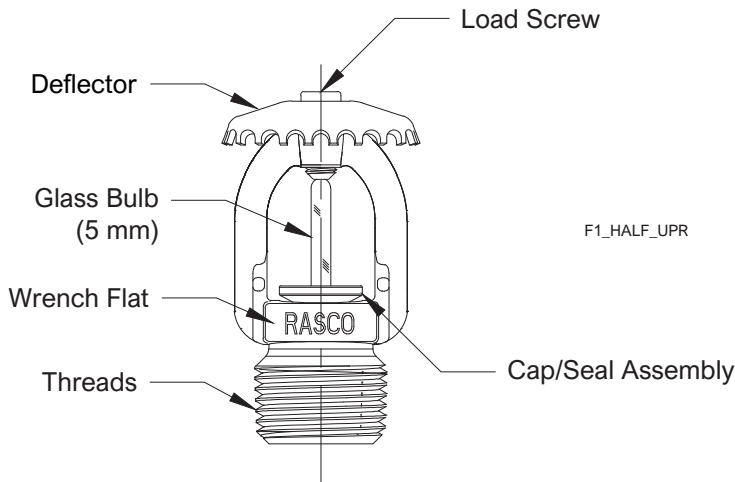


**Notes:**

1. Guards and shields are formed from steel and are not considered corrosion resistant.
2. The Model C1 guard is available FM approved in Type 316 stainless steel.
3. Unfinished only; 500°F sprinklers not available coated.

**Model F1-56SS Upright Sprinkler Components and Dimensions**

**Figure 2**



**Technical Specifications**

**Style:** Pendant or Recessed Pendant  
**Threads:** 3/4" NPT or ISO 7-1R3/4  
**Nominal K-Factor:** 8.0 (115 metric)  
**Max. Working Pressure:** 175 psi (12 bar)

**Finishes**

See Table B

**Sensitivity**

Standard-response

**Material Specifications**

**Thermal Sensor:** 5 mm glass bulb  
**Frame:** Type 316L stainless steel  
**Sealing Washer:** Beryllium-nickel alloy gold plated per MIL-G-45204, Type 3, Class 2 w/ PTFE tape on both sides.  
**Load Screw:** Type 316 stainless steel  
**Deflector:** Type 316 stainless steel  
**Cap:** Type 316 stainless steel

**Temperature Rating**

135°F (57°C)  
 155°F (68°C)  
 175°F (79°C)  
 200°F (93°C)  
 286°F (141°C)  
 360°F (182°C)

**Sprinkler Wrench**

Model W2 (pendent)  
 Model W4 (recessed pendent)

**Listings and Approvals**

cULus Listed  
 FM Approved  
 CE Listed (0786-CPR-40335)  
 VdS Approved (G421010)

**Recessed Escutcheons<sup>(1)</sup>**

**F1** (cULus Listed)  
**F2** (cULus Listed, FM Approved)  
**FP** (cULus Listed)

**Guards and Shields<sup>(2)</sup>**

D-1 Guard (cULus)  
 D-5 Guard & Shield (cULus)  
 S-2 Shield (cULus, FM)  
 C-1 Guard (FM)<sup>(3)</sup>  
 C-5 Guard & Shield (FM)

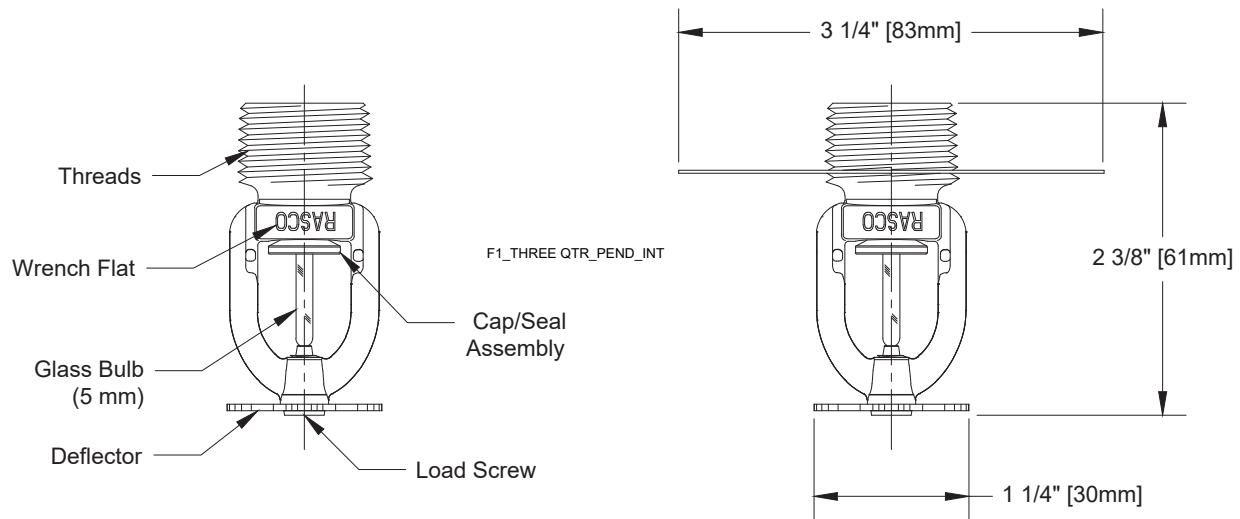


**Notes:**

- For use only with maximum 200°F temperature rated sprinklers.
- Guards and shields are formed from steel and are not considered corrosion resistant.
- The Model C1 guard is available FM approved in Type 316 stainless steel.

**Model F1-80SS Pendant Sprinkler Components and Dimensions**

**Figure 3**



Shown with Optional S-2 Water Shield (Ordered Separately)

**Note:** See page 6 for recessed installation.

**Technical Specifications**

**Style:** Upright  
**Threads:** 3/4" NPT or ISO 7-1R3/4  
**Nominal K-Factor:** 8.0 (115 metric)  
**Max. Working Pressure:** 175 psi (12 bar)

**Finishes**

See Table B

**Sensitivity**

Standard-response

**Material Specifications**

**Thermal Sensor:** 5 mm glass bulb  
**Frame:** Type 316L stainless steel  
**Sealing Washer:** Beryllium-nickel alloy gold plated per MIL-G-45204, Type 3, Class 2 w/ PTFE tape on both sides.  
**Load Screw:** Type 316 stainless steel  
**Deflector:** Type 316 stainless steel  
**Cap:** Type 316 stainless steel

**Temperature Rating**

135°F (57°C)  
 155°F (68°C)  
 175°F (79°C)  
 200°F (93°C)  
 286°F (141°C)  
 360°F (182°C)

**Listings and Approvals**

cULus Listed  
 FM Approved  
 CE Listed (0786-CPR-40334)  
 VdS Approved (G421009)

**Sprinkler Wrench**

Model W2

**Guards and Shields<sup>(1)</sup>**

D-1 Guard (cULus)  
 D-3 Guard & Shield (cULus)  
 C-1 Guard (FM)<sup>(2)</sup>  
 C-3 Guard & Shield (cULus, FM)

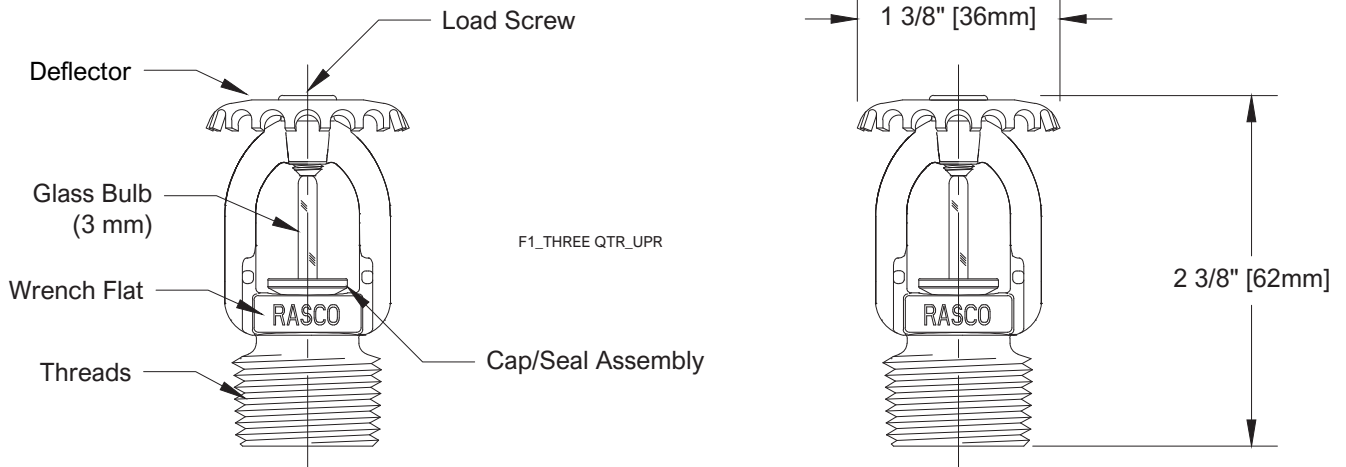


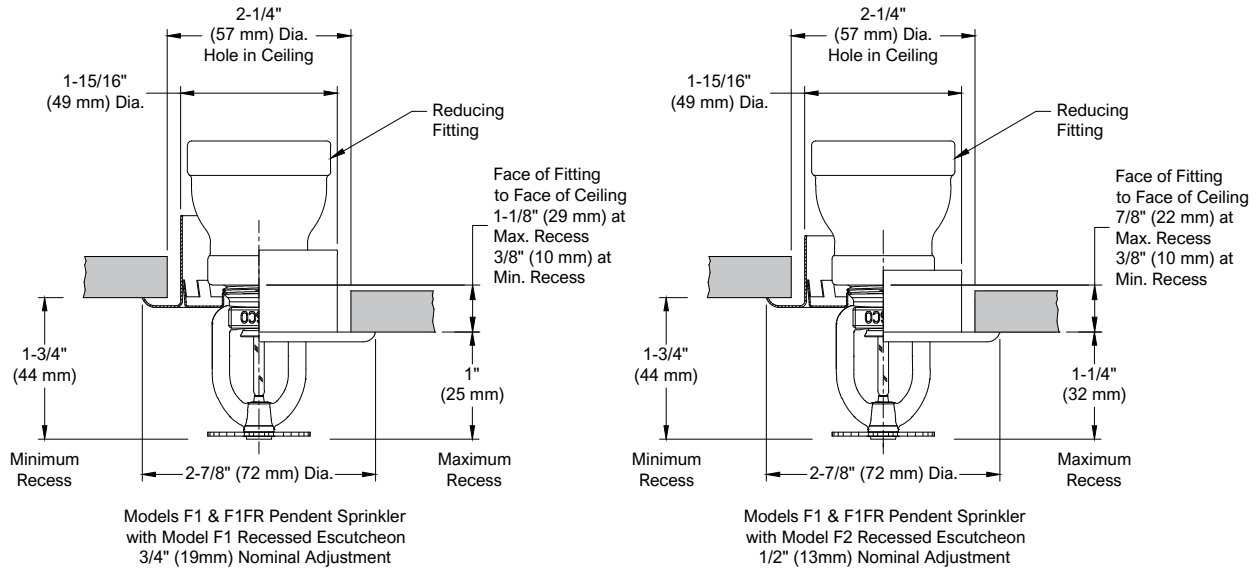
**Note:**

1. Guards and shields are formed from steel and are not considered corrosion resistant.
2. The Model C1 guard is available FM approved in Type 316 stainless steel.

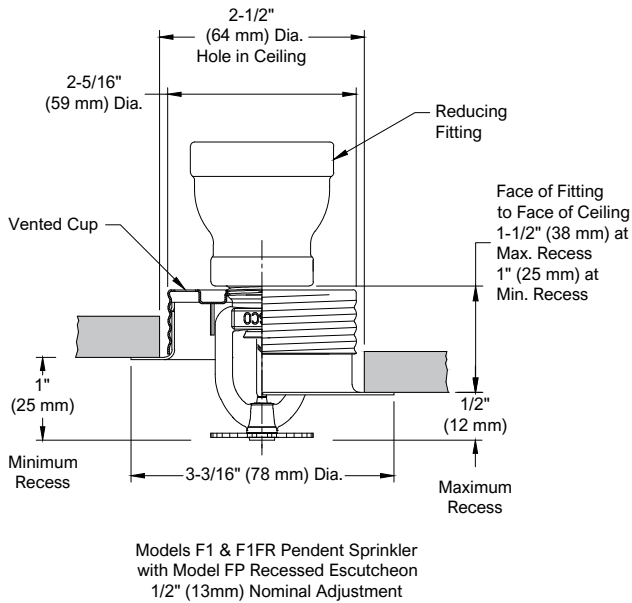
**Model F1-80SS Upright Sprinkler Components and Dimensions**

**Figure 4**





F1\_REC\_PEND



Note: Model FP recessed assemblies may not be used where the pressure in the space above the ceiling is positive with respect to the protected area. Ensure that the openings in the Model FP cup are unobstructed following installation.



Model W2 (upright, non-recessed pendent)



Model W4 (recessed pendent)

## Application

Model F1-SS series sprinklers are standard spray, standard-response sprinklers intended for installation in accordance with NFPA 13 and the requirements of applicable Authorities Having Jurisdiction. Model F1-SS series sprinklers are cULus Listed and FM Approved as Corrosion Resistant sprinklers. Verify compatibility with the environment where the sprinkler will be located prior to installation.

## Installation

Glass bulb sprinklers have orange bulb protectors 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.

Model F1-SS series sprinklers must be installed with the Reliable sprinkler installation wrench identified in this Bulletin. Any other wrench may damage the sprinkler. Recommended installation torque is 8 to 18 lb/ft (11 to 24 N/m) for 1/2" NPT and ISO7-1R1/2 sprinklers or 14 to 20 lb/ft (19 to 27 N/m) for 3/4" NPT and ISO7-1R3/4 sprinklers. Do not tighten sprinklers over the maximum recommended installation torque. Exceeding the maximum recommended installation torque may cause leakage or impairment of the sprinkler.

Recessed pendent sprinklers are to be installed as shown in Fig. 5. Model F1-SS series recessed pendent sprinklers may only be installed with the Reliable Model F1 stainless steel, Model F2 Stainless Steel, or Model FP stainless steel recessed escutcheon. The use of any other recessed escutcheon will void all approvals and negate all warranties.

### Finishes

Table B

Sprinkler Finishes	Escutcheon Finishes
None White Polyester Custom Color Polyester	None White Polyester Custom Color Polyester

## Maintenance

Model F1-SS series sprinklers should be inspected and the sprinkler system maintained in accordance with NFPA 25. Do not clean sprinklers with soap and water, ammonia or any other cleaning fluids. Remove dust by gentle vacuuming. Replace any sprinkler which has been painted (other than factory applied) or damaged in any way. A stock of spare sprinklers should be maintained to allow quick replacement of damaged or operated sprinklers. Prior to installation, sprinklers should be maintained in the original cartons and packaging until used to minimize the potential for damage to sprinklers that would cause improper operation or non-operation.

## Listings and Approvals

- cULus Listed
- FM Approved
- VdS Approved, CE Listed (see sprinkler pages for number)

## Guarantee

For the Reliable Automatic Sprinkler Co., Inc. guarantee, terms, and conditions, visit [www.reliablesprinkler.com](http://www.reliablesprinkler.com).

## Ordering Information

Specify the following when ordering:

### Model

- [F1-56SS] [F1-80SS]

### Orientation

- [Upright] [Pendent]

### Temperature Rating

- See sprinkler pages

### Threads

- [NPT] [ISO7-1]

### Sprinkler Finish

- See Table B

### Recessed Escutcheon (SS)

- [F1] [F2] [FP]

### One-Piece Escutcheon (SS)

- B

### Escutcheon Finish

- See Table B

### Sprinkler Wrench

- Model W2 (upright, non-recessed pendent)
- Model W4 (recessed pendent)