



## Model F1 Model F1FR Intermediate Level Sprinklers

### Features

1. Upright and pendent installations.
2. Available as either a standard response Model F1 or quick response Model F1FR.
3. 1/2" (15mm) orifice with a 1/2" NPT (R1/2).
4. 17/32" (20mm) orifice with 3/4" NPT (R3/4).

### Approval Organizations

1. Listed by Underwriters Laboratories, Inc. and Certified for Canada (cULus)
2. Certified by FM Approvals

### UL Listing Category

Sprinklers, Automatic & Open (VNIV)

### Product Description

The Reliable Models F1 and F1FR Intermediate Level Sprinklers include shields which protect the glass bulb from water spray impingement caused by sprinklers located at a higher elevation.

Typical applications are for storage racks which require multi-level sprinklers and beneath open grid catwalks.

### Application

Model F1 and F1FR Intermediate Level sprinklers are used in fixed fire protection systems: Wet, Dry, Deluge or Preaction. Care must be exercised that the orifice size, temperature rating, deflector style and sprinkler type are in accordance with the latest published standards of the National Fire Protection Association or the Authority Having Jurisdiction.

### Installation

Model F1 sprinklers are standard response sprinklers and Model F1FR are quick response sprinklers. Both types are intended for installation as specified in NFPA 13. Upright sprinklers must be installed with the Model D Sprinkler Wrench specifically designed by Reliable for use with these sprinklers, and pendent sprinklers must be installed with the Model GFR2 Sprinkler Wrench specifically designed by Reliable for use with these sprinklers.



Model F1  
Upright Intermediate



Model F1  
Pendent Intermediate



Model F1FR  
Upright Intermediate



Model F1FR  
Pendent Intermediate

Glass bulb sprinklers have orange covers to protect the bulb during the installation process. REMOVE THIS PROTECTION ONLY AFTER THE SYSTEM HAS BEEN HYDROSTATICALLY TESTED. Model D and GFR2 wrenches are designed to install sprinklers when covers are in place.

### Maintenance

The Models F1 and F1FR Sprinklers should be inspected quarterly and the sprinkler system maintained in accordance with NFPA 25. Do not clean sprinklers with soap and water, ammonia or any other cleaning fluid. Remove dust by using a soft brush or gentle vacuuming. Remove 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 or non-operation.

## Model F1FR Quick Response Upright & Pendent Intermediate Level Sprinklers

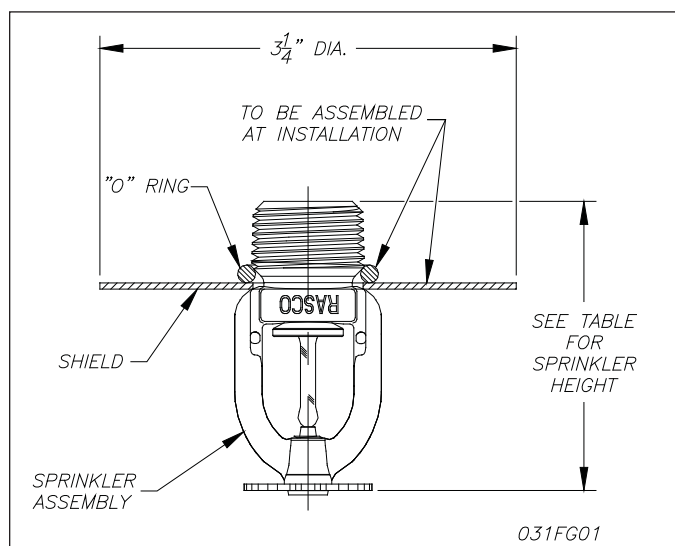
### Installation Data:

Sprinkler Type	Nominal Orifice	Thread Size	“K” Factor		Sprinkler Identification Number (SIN)	Shield Part Number	Sprinkler Height	Approvals
			US	Metric				
Pendent	$\frac{1}{2}$ " (15mm)	$\frac{1}{2}$ " NPT (R $\frac{1}{2}$ )	5.6	80	RA1414	88701411	2.25"	1,2
	$\frac{17}{32}$ " (20mm)	$\frac{3}{4}$ " NPT (R $\frac{3}{4}$ )	8.0	115	R3612	88701412	2.3"	1,2
Upright	$\frac{1}{2}$ " (15mm)	$\frac{1}{2}$ " NPT (R $\frac{1}{2}$ )	5.6	80	RA3195	88701413	2.25"	1,2
	$\frac{17}{32}$ " (20mm)	$\frac{3}{4}$ " NPT (R $\frac{3}{4}$ )	8.0	115	R7022	88701410	2.3"	1,2

## Model F1 Standard Response Upright & Pendent Intermediate Level Sprinklers

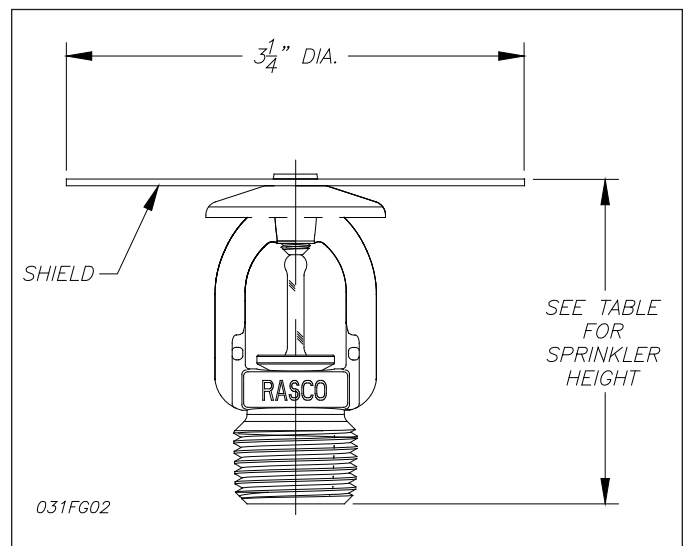
### Installation Data:

Sprinkler Type	Nominal Orifice	Thread Size	“K” Factor		Sprinkler Identification Number (SIN)	Shield Part Number	Sprinkler Height	Approvals
			US	Metric				
Pendent	$\frac{1}{2}$ " (15mm)	$\frac{1}{2}$ " NPT (R $\frac{1}{2}$ )	5.6	80	RA1314	88701411	2.25"	1,2
	$\frac{17}{32}$ " (20mm)	$\frac{3}{4}$ " NPT (R $\frac{3}{4}$ )	8.0	115	R1712	88701412	2.3"	1,2
Upright	$\frac{1}{2}$ " (15mm)	$\frac{1}{2}$ " NPT (R $\frac{1}{2}$ )	5.6	80	RA3125	88701413	2.25"	1,2
	$\frac{17}{32}$ " (20mm)	$\frac{3}{4}$ " NPT (R $\frac{3}{4}$ )	8.0	115	R7092	88701410	2.3"	1,2



Model F1 and F1FR Pendent Intermediate Level Sprinkler

Fig. 1



Model F1 and F1FR Upright Intermediate Level Sprinkler

Fig. 2

### Temperature Rating For F1FR:

Classification	Sprinkler Temperature		Bulb Color
	°F	°C	
Ordinary	57	135	Orange
Ordinary	68	155	Red
Intermediate	79	175	Yellow
Intermediate	93	200	Green
High	141	286	Blue

### Temperature Rating For F1:

Classification	Sprinkler Temperature		Bulb Color
	°F	°C	
Ordinary	57	135	Orange
Ordinary	68	155	Red
Intermediate	79	175	Yellow
Intermediate	93	200	Green
High	141	286	Blue
Extra High	182	360	Mauve

### Installation Wrenches

Upright — Model D Sprinkler Wrench

Pendent — Model GFR2 Sprinkler Wrench

### Finishes <sup>(1)</sup>

Standard Finishes	
Sprinkler	Escutcheon
Bronze	Brass
Chrome Plated	Chrome Plated
White Polyester Coated <sup>(5)</sup>	White Painted
Special Application Finishes	
Sprinkler	Escutcheon
Bright Brass	Bright Brass
Black Plated	Black Plated
Black Paint	Black Paint
Off White	Off White
Satin Chrome	Satin Chrome
Lead Plated <sup>(2)</sup>	Lead Plated
Wax Coated <sup>(2) (3)</sup>	Wax Coated
Wax Over Lead <sup>(2) (3)</sup>	Wax Over Lead

<sup>(1)</sup> Other colors and finishes are available. Consult factory for details.

<sup>(2)</sup> Model F1 Standard Response only.

<sup>(3)</sup> 155°F (68°C), 175°F (79°C), 200°F (93°C) and 286°F (141°C) temperature ratings only.

<sup>(4)</sup> All finishes listed in the above table are applied to the sprinklers only. The shield's finish will always be galvanized zinc.

<sup>(5)</sup> UL & FM Approvals finish as "Polyester coated" applies to SIN Numbers RA1314, RA1414, R7072 & R7092.

**Note:** Paint or any other coating applied over the factory finish will void approvals and warranties.

### Shields

Galvanized Zinc

### Ordering Information

Specify:

1. Sprinkler Model
2. Sprinkler Type
3. Orifice Size
4. Deflector Type
5. Temperature Rating
6. Sprinkler Finish

# Reliable...For Complete Protection

Reliable offers a wide selection of sprinkler components. Following are some of the many precision-made Reliable products that guard life and property from fire around the clock.

- Automatic sprinklers
- Flush automatic sprinklers
- Recessed automatic sprinklers
- Concealed automatic sprinklers
- Adjustable automatic sprinklers
- Dry automatic sprinklers
- Intermediate level sprinklers
- Open sprinklers
- Spray nozzles
- Alarm valves
- Retarding chambers
- Dry pipe valves
- Accelerators for dry pipe valves
- Mechanical sprinkler alarms
- Electrical sprinkler alarm switches
- Water flow detectors
- Deluge valves
- Detector check valves
- Check valves
- Electrical systems
- Sprinkler emergency cabinets
- Sprinkler wrenches
- Sprinkler escutcheons and guards
- Inspectors test connections
- Sight drains
- Ball drips and drum drips
- Control valve seals
- Air maintenance devices
- Air compressors
- Pressure gauges
- Identification signs
- Fire department connection

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The equipment presented in this bulletin is to be installed in accordance with the latest published Standards of the National Fire Protection Association, Factory Mutual Research Corporation, or other similar organizations and also with the provisions of governmental codes or ordinances whenever applicable. Products manufactured and distributed by Reliable have been protecting life and property for over 80 years, and are installed and serviced by the most highly qualified and reputable sprinkler contractors located throughout the United States, Canada and foreign countries.

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Manufactured by



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