



## 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. Temperature ratings of 135°F (57°C), 155°F (68°C), 175°F (79°C), 200°F (93°C) and 286°F (141°C) for Models F1 and F1FR; the Model F1 is also available in additional rating of 360°F (182°C).
4.  $\frac{17}{32}$ " (20mm) orifice with  $\frac{3}{4}$ " NPT (R $\frac{3}{4}$ ).

For Model F156/F1FR56  $\frac{1}{2}$ " K 5.6 (80) Sprinkler Types refer to Bulletin 031 for technical specifications and approvals.

### Listings & Approvals

1. Listed by Underwriters Laboratories, Inc. (UL)
2. Listed by Underwriters' Laboratories of Canada (ULC)
3. Certified by FM Approvals
4. NYC MEA No. 258-93-E

### 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 F1  
Upright Intermediate



Model F1  
Pendent Intermediate



Model F1FR  
Upright Intermediate



Model F1FR  
Pendent Intermediate

Model GFR1 Sprinkler Wrench specifically designed by Reliable for use with these sprinklers.

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 AND, WHEN APPLICABLE, THE ESCUTCHEONS HAVE BEEN INSTALLED. RASCO wrenches are designed to install sprinklers when covers are in place.

### Maintenance

The Models F1 and F1FR 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 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

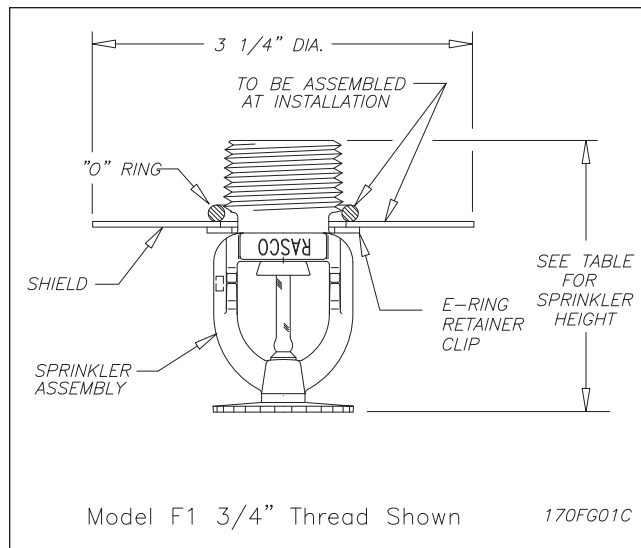
### Installation Data:

Sprinkler Type	Nominal Orifice	Thread Size	"K" Factor		Sprinkler Identification Number (SIN)	Shield Part Number	Sprinkler Height	Approvals
			US	Metric				
Pendent	17/32" (20mm)	3/4" NPT (R 3/4)	8.00	115.30	R3612	88701412	2.3"	1,2,3,4
Upright	17/32" (20mm)	3/4" NPT (R 3/4)	8.00	115.30	R7092	88701410	2.3"	1,2,3,4

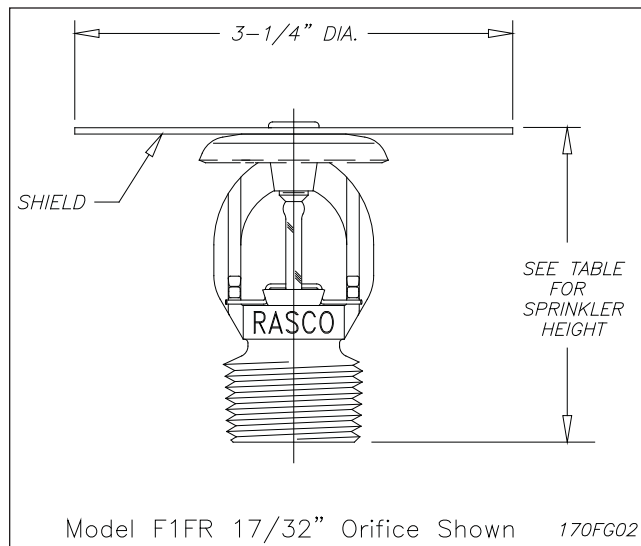
## Model F1 Standard Response Upright & Pendent Intermediate Level Sprinklers

### Installation Data:

Sprinkler Type	Nominal Orifice	Thread Size	"K" Factor		Sprinkler Identification Number (SIN)	Shield Part Number	Sprinkler Height	Approvals
			US	Metric				
Pendent	17/32" (20mm)	3/4" NPT (R 3/4)	8.00	115.30	R1712	88701412	2.3"	1,2,3,4
Upright	17/32" (20mm)	3/4" NPT (R 3/4)	8.00	115.30	R7022	88701410	2.3"	1,2,3,4



Models F1 and F1FR Pendent Intermediate Level Sprinkler



Models F1 and F1FR Upright Intermediate Level Sprinklers

**Temperature Ratings For F1FR:**

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

**Temperature Ratings For F1:**

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

**Ordering Information**

**Specify:**

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

**Installation Wrenches**

Upright — Model D Sprinkler Wrench  
 Pendent — Model GFR2 Sprinkler Wrench

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

Standard Finishes
Bronze
Special Application Finishes
Electroless Nickel PTFE(Teflon®)* <sup>(4)(5)</sup> Bright Chrome Chrome Dull Polyester Coated Lead Plated <sup>(2)(4)</sup> Wax Coated <sup>(2)(3)(4)</sup> Wax Over Lead <sup>(2)(3)(4)</sup>

- <sup>(1)</sup> Other colors and finishes are available. Consult factory for details.
- <sup>(2)</sup> Model F1 Standard Response only.
- <sup>(3)</sup> 55°F (68°C), 175°F (79°C), 200°F (93°C) and 286°F (141°C) temperature ratings only.
- <sup>(4)</sup> Only the sprinkler is wax coated, lead or Electroless Nickel PTFE (Teflon®)\*plated. The shield finish remains galvanized zinc.
- <sup>(5)</sup> cULus listed Corrosion Resistant.

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

**Shields**

Galvanized Zinc

\*DuPont Registered Trademark

# 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 system
- 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 90 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

**Reliable**<sup>®</sup>

**The Reliable Automatic Sprinkler Co., Inc.**

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