

### 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. 17/32" (20 mm) orifice with 3/4" NPT (R3/4).

For Model F156/F1FR561/2" K 5.6 (80) Sprinkler Types refer to Bulletin 031 for technical specifications and approvals.

### **Listings and 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 and 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 multilevel 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 GFR1 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 AND, WHEN APPLICABLE, THE ESCUTCHEONS HAVE BEEN INSTALLED. RASCO wrenches are designed to install sprinklers when covers are in place.

### **Maintenance**

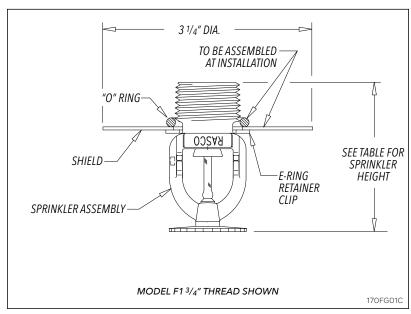
The Models F1 and F1FR Sprinklers should be inspected and the sprinkler system maintained in accordance with NFPA 25. Do not clean sprinklers with soap and water, ammonia or any other cleaning fluid. Remove dust by using a soft brush or gentle vacuuming. Remove any sprinkler which has been painted (other 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 and Pendent Intermediate Level Sprinklers Installation Data:

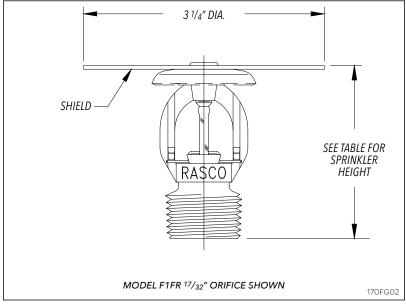
| Sprinkler    | Nominal                                 | Thread Size     | K-Factor |        | Sprinkler Identification | Shield Part | Sprinkler | Approvals  |
|--------------|---|-----------------|----------|--------|--------------------------|-------------|-----------|------------|
| Type Orifice | Ornice                                  |                 | US       | Metric | Number (SIN)             | Number      | Height    | • •        |
| Pendent      | <sup>17</sup> / <sub>32</sub> " (20 mm) | 3/4" NPT (R3/4) | 8.00     | 115.30 | R3612                    | 88701412    | 2.3"      | 1, 2, 3, 4 |
| Upright      | <sup>17</sup> / <sub>32</sub> " (20 mm) | 3/4" NPT (R3/4) | 8.00     | 115.30 | R7092                    | 88701410    | 2.3"      | 1, 2, 3, 4 |

### Model F1 Standard Response Upright and Pendent Intermediate Level Sprinklers Installation Data:

| Sprinkler | Nominal                                 | Thread Size     | K-Factor |        | Sprinkler Identification | Shield Part | Sprinkler | Approvals  |
|-----------|---|-----------------|----------|--------|--------------------------|-------------|-----------|------------|
| Туре      | ype Orifice                             |                 | US       | Metric | Number (SIN)             | Number      | Height    |            |
| Pendent   | 17/ <sub>32</sub> " (20 mm)             | 3/4" NPT (R3/4) | 8.00     | 115.30 | R1712                    | 88701412    | 2.3"      | 1, 2, 3, 4 |
| Upright   | <sup>17</sup> / <sub>32</sub> " (20 mm) | 3/4" NPT (R3/4) | 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 To | Bulb Color |            |
|----------------|--------------|------------|------------|
| Classification | °F           | °C         | Buib Color |
| 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 To | Bulb Color |            |  |
|----------------|--------------|------------|------------|--|
| Classification | °F           | °C         | Buib Color |  |
| 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(1)

|      | Standard Finishes   |
|------|---|
|      | Bronze  |
| Spe  | ecial Application Finishes  |
| Elec | troless Nickel PTFE(Teflon®)*(4)(5) Bright Chrome Chrome Dull Polyester Coated Lead Plated(2)(4) Wax Coated(2)(3)(4) Wax Over Lead(2)(3)(4) |

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

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

#### **Shields**

Galvanized Zinc

<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.

<sup>\*</sup>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

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 almost 100 years.

Manufactured by

