

# Reliable®

## Model F1-300 300 psi (20,7 bar) Rated Standard Response Sprinklers

### Model F1-300 Standard Response Sprinkler

#### Sprinkler Types

- Upright
- Pendent
- Recessed Pendent

For Model F1-300 ½" K 5.6 (80) Sprinkler Types refer to Bulletin 025 for technical specifications and approvals.

#### Listings & Approvals

1. Listed by Underwriters Laboratories, Inc. and Certified for Canada (cULus)
2. NYC MEA 258-93-E

#### UL Listing Category

Sprinklers, Automatic & Open (VNIV)

#### Product Description

Reliable Models F1-300 Upright, Pendent and Recessed Pendent Sprinklers are high pressure rated automatic sprinklers which can handle a maximum service pressure of 300 psi (20,7 bar).

The Model F1-300 glass bulb sprinkler combines durability with the attractive low profile of a decorative sprinkler. Whether installed on exposed piping or below an office ceiling, it is functional and attractive.

The Model F1 Recessed Escutcheon provides convenient adjustment for Model F1-300 Sprinklers. The two-piece construction makes field installation an easy and rapid task. This also allows ceiling panels to later be removed without shutting down the fire protection system, thus facilitating maintenance of above ceiling services.

The Models F1-300 Upright, Pendent and Recessed Pendent automatic sprinklers are standard response sprinklers which utilize a 5.0mm frangible glass bulb. The glass bulb contains an accurately controlled amount of special fluid hermetically sealed inside. The other sprinkler parts are made of brass, copper or beryllium nickel.

At normal temperatures, the glass bulb contains fluid in both the liquid and vapor phases. The vapor phase can be seen as a small bubble. As heat is applied, the liquid expands, forcing the bubble smaller and smaller as the liquid pressure increases. Continued heating forces the liquid to push out against the bulb, causing the glass to shatter, opening the waterway and allowing the deflector to distribute the discharging water.



Upright



Pendent



Recessed Pendent

The temperature rating of the sprinkler is identified by the color of the glass bulb.

#### Application

The most common applications for Model F1-300 sprinklers will be in fire protection systems for high rise buildings or where the pressure entering the sprinkler system is in excess of 175 psi (12 bar). The use of these sprinklers will provide opportunity to reduce or eliminate the need for pressure reducing valves.

## Model F1-300 Upright and Pendent Sprinklers

Installation Wrench: Model D Sprinkler Wrench

Installation Data:

Sprinkler Type	Nominal Orifice Size	Thread Size	Nominal K Factor		Sprinkler Height	Sprinkler Identification Numbers (SIN)
			US	Metric		
Upright	17/32" (20mm)	3/4" NPT (R3/4)	8.0	115	2.4" (61mm)	R5522
Pendent	17/32" (20mm)	3/4" NPT (R3/4)	8.0	115	2.4" (61mm)	R5512



Upright



Pendent

## Model F1-300 Recessed Pendent Sprinkler

Installation Wrench: Model GFR2 Sprinkler Wrench

Installation Data:

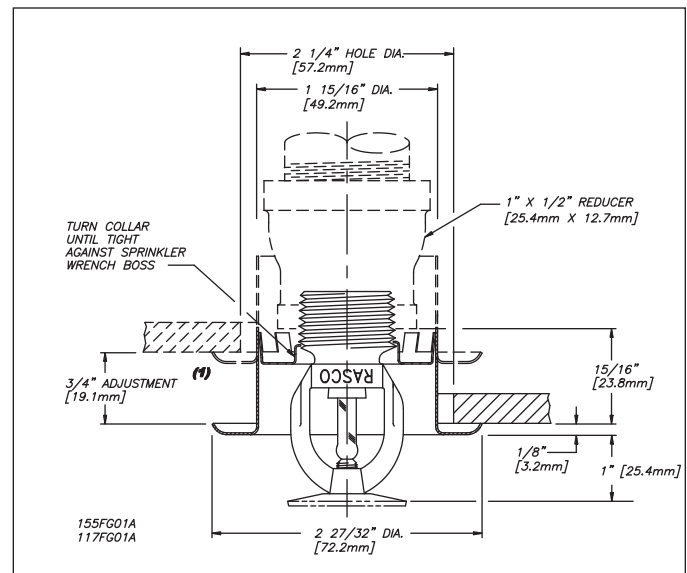
Sprinkler Type	Nominal Orifice Size	Thread Size	Nominal K Factor		Sprinkler Height	Sprinkler Identification Numbers (SIN)
			US	Metric		
Recessed Pendent	17/32" (20mm)	3/4" NPT (R3/4)	8.0	115	2.4" (61mm)	R5512

## Escutcheon Data

Escutcheon Model	Approvals	Adjustment	"A" Dimension	Face of Fitting to Ceiling or Wall Dimension
F1	1,2	3/4" (19mm)	3/4" (19mm) <sup>(1)</sup> 1 3/8" (35mm) <sup>(2)</sup>	3/16" (5mm) - 15/16" (24mm)



Recessed Pendent



<sup>(1)</sup> When installed directly into a tee, the escutcheon adjustment will be reduced.

## Installation

Model F1-300 Sprinklers are standard response sprinklers intended for installation as specified in NFPA 13. They must be installed with the Model D Sprinkler Wrench specifically designed by Reliable for use with these sprinklers.

Model F1-300 Recessed Pendent Sprinklers are to be installed with a maximum recess of 3/4" (19mm). The Model F1 Escutcheon illustrated is the only recessed escutcheon to be used with Model F1-300 Pendent Sprinklers. The use of any other recessed escutcheon will void all approvals and negate all warranties.

When installing Model F1-300 Recessed Pendent Sprinklers, use the Model GFR1 Sprinkler Wrench. Any other type of wrench may damage these sprinklers.

Glass bulb sprinklers have orange bulb protectors to minimize bulb damage during shipping, handling and installation. REMOVE THIS PROTECTION AT THE TIME THE SPRINKLER SYSTEM IS PLACED IN SERVICE FOR FIRE PROTECTION. Removal of the protectors before this time may leave the bulb vulnerable to damage. RASCO wrenches are designed to install sprinklers when covers are in place. REMOVE PROTECTORS BY UNDOING THE CLASP BY HAND. DO NOT USE TOOLS TO REMOVE THE PROTECTORS.

## Maintenance

The Model F1-300 Upright, Pendent and Recessed Pendent 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 any sprinkler that 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.

## Standard Temperature Ratings

Classification	Sprinkler Temperature		Maximum Ambient Temperature		Bulb Color
	°F	°C	°F	°C	
Ordinary	135	57	100	38	Orange
Ordinary	155	68	100	38	Red
Intermediate	175	79	150	66	Yellow
Intermediate	200	93	150	66	Green
High <sup>(1)</sup>	286	141	225	107	Blue
Extra High <sup>(1)</sup>	360	182	300	149	Mauve

<sup>(1)</sup> Not Available for recessed sprinklers.

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

Standard Finishes	
Sprinkler	Escutcheon
Bronze Chrome Plated White Polyester Coated	Brass Chrome Plated White Painted
Special Application Finishes	
Sprinkler	Escutcheon
Bright Brass <sup>(2)</sup> Black Plated Black Paint Off White <sup>(3)</sup> Satin Chrome Lead Plated <sup>(3)</sup> Wax Coated <sup>(3)(4)</sup> Wax Over Lead <sup>(3)(4)</sup>	Bright Brass Black Plated Black Paint Off White Satin Chrome

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

<sup>(2)</sup> 200°F (93°C) Maximum.

<sup>(3)</sup> 155°F (68°C) to 200°F (93°C) Rating Only. plated finishes only.

<sup>(4)</sup> 212°F (100°C) brown wax may be used on 286°F (141°C) sprinklers when maximum ceiling temperatures do not exceed 150°F (66°C).

## Ordering Information

### Specify:

1. Sprinkler Model
2. Sprinkler Type
3. Orifice Size
4. Deflector Type
5. Temperature Rating
6. Sprinkler Finish
7. Escutcheon Finish (where applicable)

**Note:** When Model F1-300 Recessed Pendent sprinklers are ordered, the sprinklers and escutcheons are packaged separately.

# 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>

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