

# Reliable®

## Model G Automatic Sprinklers Spray Upright, Spray Pendent, And Conventional

### Product Description

The Reliable Model G Automatic Sprinkler utilizes the center strut solder in compression principle of construction. The fusible alloy is captured in the cylinder of the solder capsule by a stainless steel ball. When the fusible alloy melts, the ball moves into the cylinder allowing the cylinder to fall away from the sprinkler. When this happens, the lever is released to spring free from the sprinkler so that all of the operating parts clear from the waterway allowing the deflector to distribute the discharging water.

Except for the parts in the cylinder as mentioned above, the sprinkler components are made from copper based alloys for maximum corrosion protection. Lead plated, wax coated or wax over lead plated sprinklers are available for specially severe environments. Chrome plated sprinklers are available for decorative purposes.

All sprinklers are individually hydrostatically tested. All sprinklers are identified as to their fusing point by markings that appear on several of the operating parts and by an identifying color that appears on the frame.

### Sprinkler Types

**Standard Upright** – This deflector configuration is normally used with exposed piping installations. Water is distributed laterally and downward in a wide pattern approximating a hemisphere which is completely and uniformly filled with water in the form of small drops or spray.

**Standard Pendent** – This deflector configuration is normally used where the space above the piping is limited or where a concealed piping installation is employed. The discharge characteristics of the standard pendent are virtually identical to the standard upright as described above.

**Large and Small Orifice** —By varying the orifice size, a large or small orifice sprinkler is created that will distribute as much as 40% more water or 65% less water than the normal 1/2" (15mm) orifice sprinkler.

**Conventional** —This deflector configuration is used primarily in those countries where the LPC installation rules have precedence. The sprinkler is designed to distribute a portion of its water discharge upward against the ceiling with the balance downward. It may be installed in either the upright or the pendent position. Sprinklers with conventional deflectors are available with orifice sizes corresponding to light, ordinary and extra-high hazard installations.



Upright



Pendent



Small Orifice Upright



Conventional

### Application and Installation

Standard sprinklers are used in fixed fire protection systems: Wet, Dry, Deluge or Preaction. Care must be exercised that the orifice sizes, temperature ratings, deflector styles and sprinkler spacings are in accordance with the latest published standards of the National Fire Protection Association or the approving authority having jurisdiction.

The sprinklers must be installed with the Reliable Model W2 Sprinkler Wrench. Any other type of wrench may damage the sprinkler.

The approvals or listings of Reliable Automatic Sprinklers by major approving organizations are shown in the tabulated list provided on the back of this bulletin.

## Technical Data

Sprinkler Type	"K" Factor		Sprinkler Height	Approvals	Sprinkler Identification Number (SIN)	
	US	Metric			SSU	SSP
Standard—Upright (SSU) and Pendent (SSP) Deflectors Marked to Indicate Position						
1/2" (15 mm) Standard Orifice with 1/2" NPT (R1/2) Thread	5.62	81.0	2 7/8" (73 mm)	1, 2, 3, 4, 5, 6	R1025	R1015
7/16" (11 mm) Small Orifice with 1/2" NPT (R1/2) Thread	4.24	61.0	2 7/8" (73 mm)	1	R1023	R1013
3/8" (10 mm) Small Orifice with 1/2" NPT (R1/2) Thread	2.82	40.6	2 7/8" (73 mm)	1, 2,	R1021	R1011
5/16" (8 mm) Small Orifice with 1/2" NPT (R1/2) Thread	1.98	28.5	2 7/8" (73 mm)	1, 5	R1022	R1012
17/32" (20 mm) Large Orifice with 1/2" NPT (R1/2) Thread	7.96	114.7	2 7/8" (73 mm)	1, 2,	R1026	R1016
17/32" (20 mm) Large Orifice with 3/4" NPT (R3/4) Thread	8.20	118.2	2 15/16" (75 mm)	1, 2,	R1027	R1017
20 mm XHH with 20 mm Thread	8.20	118.2	75.4 mm	3, 4, 6	R1027	R1017
10 mm XLH with 10 mm Thread	4.10	59.1	73 mm	3, 4,	R1024	R1014
Conventional—Installed in Upright or Pendent Position						
10mm XLH with 10mm Thread	4.10	59.1	73 mm	4		R1074
15mm Standard Orifice with (R1/2) Thread	5.62	81.0	73 mm	3, 4, 6		R1075
20mm XHH with (R3/4) Thread	8.20	118.2	75.4 mm	3, 4, 6		R1077

## Temperature Ratings

Classification	Sprinkler Rating		Maximum Ambient Temperature		Frame <sup>(1)</sup> Color
	°F	°C	°F	°C	
Ordinary	135	57	100	38	Black
Ordinary	165	74	100	38	Uncolored
Intermediate	212	100	150	66	White
High	286	141	225	107	Blue

<sup>(1)</sup> Frame color does not apply to painted or plated sprinklers  
—Use sprinkler rating as identified on operating parts.

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

Standard Finishes	
Bronze	—All Temperature Ratings
Chrome	—All Temperature Ratings
White <sup>(2)</sup>	—All Temperature Ratings Only Frame and Deflector are Painted
Special Application Finishes	
Bright Brass Plated	—Only frame, deflector and cap are plated. 135°F (57°C), 165°F (74°C), 212°F (100°C) Temp. Rating.
Black Plated	—Only frame, deflector and cap are plated. All Temp. Ratings.
Polyester Coated <sup>(2)(4)</sup>	—Only frame and deflector are coated.
Lead Plated	—165°F (74°C), 212°F (100°C) and 286°F (141°C) Temp. Ratings.
Wax-Coated <sup>(3)</sup>	—165°F (74°C) Clear Wax, 212°F (100°C) Brown Wax.
Wax-Coated Over Lead Plated <sup>(3)</sup>	—165°F (74°C) Clear Wax, 212°F (100°C) Brown Wax.

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

<sup>(2)</sup> UL listed and NYC MEA Approved only.

<sup>(3)</sup> 212°F (100°C) brown wax may be used on 286°F (141°C) sprinklers when maximum ambient temperatures do not exceed 150°F (66°C). UL Listed, FM Approved, NYC MEA 258-93-E.

<sup>(4)</sup> FM Approved for R1027 only.

## Maintenance

Model G 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 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. Use only the Model W2 Sprinkler Wrench for sprinkler removal and installation. Any other type of wrench may damage the sprinkler.

## Approval Organizations

- Underwriters Laboratories, Inc. and UL Certified for Canada (cULus).
- Factory Mutual Research Corporation
- Loss Prevention Council
- Pleniere Assemblée
- N.Y.C. BS&A No. 587-75-SA or N.Y.C. MEA 258-93-E
- CE Certificate:

1438-CPR-0054 (R1015)	1438-CPR-0056 (R1077)
1438-CPR-0053 (R1025)	1438-CPR-0057 (R1027)
1438-CPR-0052 (R1075)	1438-CPR-0058 (R1017)

## Ordering Information

### Specify:

- Model G
- Deflector
  - Upright
  - Pendent
  - Conventional
- Nominal Orifice
- Inlet Thread
- Temperature Rating
- Finish

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.

Manufactured by



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