Features

- Standard coverage, standard-response sprinklers
- Upright, pendent, horizontal sidewall, and vertical sidewall deflectors
- Robust solder capsule thermal element
- Available in a wide variety of finishes

Product Description

Reliable Model G Series sprinklers are standard-response standard spray automatic sprinklers using a solder capsule thermal element. The solder is captured in the cylinder of the capsule by a stainless steel ball. When the solder melts, the ball moves into the cylinder allowing the thermal element to fall away from the sprinkler. When this occurs, the compressed strut and lever spring free from the sprinkler. System pressure then clears the waterway of all operating parts allowing the deflector to evenly distribute water.

Pendent and horizontal sidewall sprinklers may be installed exposed or surface mounted using escutcheons such as the Reliable Models B, C, or HB (reference Technical Bulletin 204).

When installed recessed, the Model G Series sprinklers are specifically listed with and may only be installed with listed Reliable escutcheons. Refer to the technical information on the following pages for specific listings for recessed installations and Figures 6 and 7 for dimensional information.

Sprinkler Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>K-Factor gpm/psi (lpm/bar)</th>
<th>Listings &amp; Approvals</th>
<th>Threads</th>
<th>Sprinkler Identification Number (SIN)</th>
</tr>
</thead>
<tbody>
<tr>
<td>G Upright</td>
<td>2.8 (40)</td>
<td>UL, FM</td>
<td>1/2&quot; NPT, ISO 7-R1/2</td>
<td>R1021</td>
</tr>
<tr>
<td></td>
<td>4.2 (60)</td>
<td>UL</td>
<td>1/2&quot; NPT, ISO 7-R1/2</td>
<td>R1023</td>
</tr>
<tr>
<td></td>
<td>5.6 (80)</td>
<td>UL, FM, LPCB, EC (1438-CPR-0053)</td>
<td>1/2&quot; NPT, ISO 7-R1/2</td>
<td>R1025</td>
</tr>
<tr>
<td></td>
<td>8.0 (115)</td>
<td>UL, FM</td>
<td>1/2&quot; NPT, ISO 7-R1/2</td>
<td>R1026</td>
</tr>
<tr>
<td></td>
<td>8.0 (115)</td>
<td>UL, FM, LPCB, EC (1438-CPR-0057)</td>
<td>3/4&quot; NPT, ISO 7-R3/4</td>
<td>R1027</td>
</tr>
<tr>
<td>G Upright Intermediate</td>
<td>5.6 (80)</td>
<td>UL, FM</td>
<td>1/2&quot; NPT, ISO 7-R1/2</td>
<td>R1425</td>
</tr>
<tr>
<td></td>
<td>8.0 (115)</td>
<td>UL, FM</td>
<td>3/4&quot; NPT, ISO 7-R3/4</td>
<td>R1427</td>
</tr>
<tr>
<td>G Pendent</td>
<td>2.8 (40)</td>
<td>UL, FM</td>
<td>1/2&quot; NPT, ISO 7-R1/2</td>
<td>R1011</td>
</tr>
<tr>
<td></td>
<td>4.2 (60)</td>
<td>UL</td>
<td>1/2&quot; NPT, ISO 7-R1/2</td>
<td>R1013</td>
</tr>
<tr>
<td></td>
<td>5.6 (80)</td>
<td>UL, FM, LPCB, EC (1438-CPR-0053)</td>
<td>1/2&quot; NPT, ISO 7-R1/2</td>
<td>R1015</td>
</tr>
<tr>
<td></td>
<td>8.0 (115)</td>
<td>UL, FM</td>
<td>1/2&quot; NPT, ISO 7-R1/2</td>
<td>R1016</td>
</tr>
<tr>
<td></td>
<td>8.0 (115)</td>
<td>UL, FM, LPCB, EC (1438-CPR-0057)</td>
<td>3/4&quot; NPT, ISO 7-R3/4</td>
<td>R1017</td>
</tr>
<tr>
<td>G Horizontal Sidewall</td>
<td>2.8 (40)</td>
<td>UL</td>
<td>1/2&quot; NPT, ISO 7-R1/2</td>
<td>R1231</td>
</tr>
<tr>
<td></td>
<td>4.2 (60)</td>
<td>UL</td>
<td>1/2&quot; NPT, ISO 7-R1/2</td>
<td>R1233</td>
</tr>
<tr>
<td></td>
<td>5.6 (80)</td>
<td>UL, FM, LPCB</td>
<td>1/2&quot; NPT, ISO 7-R1/2</td>
<td>R1235</td>
</tr>
<tr>
<td></td>
<td>8.0 (115)</td>
<td>UL</td>
<td>1/2&quot; NPT, ISO 7-R1/2</td>
<td>R1236</td>
</tr>
<tr>
<td></td>
<td>8.0 (115)</td>
<td>UL</td>
<td>3/4&quot; NPT, ISO 7-R3/4</td>
<td>R1237</td>
</tr>
<tr>
<td>G Vertical Sidewall</td>
<td>5.6 (80)</td>
<td>FM, LPCB, EC (1438-CP-0055)</td>
<td>1/2&quot; NPT, ISO 7-R1/2</td>
<td>R1285</td>
</tr>
</tbody>
</table>

When fitted with an approved water shield, these sprinklers may considered intermediate sprinklers for use in racks, below grated walkways, and other areas where intermediate level sprinklers are required.

www.reliablesprinkler.com
**Model G Upright Sprinkler**

**Technical Specifications**
- **Style:** Upright
- **Threads:** (see Table B)
- **Nominal K-Factor:** (See Table B)
- **Max. Working Pressure:** 175 psi (12 bar)

**Material Specifications**
- **Thermal Sensor:** Solder capsule
- **Sprinkler Frame:** Brass Alloy
- **Cap:** Bronze Alloy with PTFE
- **Load Screw:** Brass Alloy
- **Deflector:** Brass Alloy

**Sprinkler Finishes**
(See Table F)

**Sensitivity**
Standard response

**Temperature Ratings**
- 135°F (57°C)
- 165°F (74°C)
- 212°F (100°C)
- 286°F (141°C)

**Guards & Shields**
- D-1 Guard (UL)
- C-1 Guard (FM)
- C-3 Guard with Shield (UL, FM on R1025, R1026, and R1027 only)

**Sprinkler Wrench**
Model W2

**Listings and Approvals**
(See Table B)

---

**Model G Upright Sprinkler Components and Dimensions**

- **Note:** Deflector on K2.8 and K4.2 Model G Upright is 1-1/4" (32 mm) diameter.

---

**Model G Upright Sprinklers**

<table>
<thead>
<tr>
<th>SIN</th>
<th>K-factor (US)</th>
<th>K-factor (Metric)</th>
<th>Threads</th>
<th>Approvals</th>
</tr>
</thead>
<tbody>
<tr>
<td>R1021</td>
<td>2.8</td>
<td>40</td>
<td>1/2&quot; NPT, ISO 7-R1/2</td>
<td>UL, FM</td>
</tr>
<tr>
<td>R1023</td>
<td>4.2</td>
<td>60</td>
<td>1/2&quot; NPT, ISO 7-R1/2</td>
<td>UL</td>
</tr>
<tr>
<td>R1025</td>
<td>5.6</td>
<td>80</td>
<td>1/2&quot; NPT, ISO 7-R1/2</td>
<td>UL, FM, LPCB, EC</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(1438-CPR-0053)</td>
</tr>
<tr>
<td>R1026</td>
<td>8.0</td>
<td>115</td>
<td>1/2&quot; NPT, ISO 7-R1/2</td>
<td>UL</td>
</tr>
<tr>
<td>R1027</td>
<td>8.0</td>
<td>115</td>
<td>3/4&quot; NPT, ISO 7-R3/4</td>
<td>UL, FM, LPCB, EC</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(1438-CPR-0057)</td>
</tr>
</tbody>
</table>
Model G Intermediate Upright Sprinkler

Technical Specifications
- **Style:** Intermediate Upright
- **Threads:** (See Table C)
- **Nominal K-Factor:** (See Table C)
- **Max. Working Pressure:** 175 psi (12 bar)

Material Specifications
- **Thermal Sensor:** Solder Capsule
- **Sprinkler Frame:** Brass Alloy
- **Cap:** Bronze Alloy with PTFE
- **Load Screw:** Brass Alloy
- **Deflector:** Brass Alloy

Sprinkler Finishes
- Bronze (Only)

Sensitivity
- Standard response

Temperature Ratings
- 135°F (57°C)
- 165°F (74°C)
- 212°F (100°C)
- 286°F (141°C)

Guards & Shields
- Factory Water Shield (cULus, FM)

Sprinkler Wrenches
- Model W2

Listings and Approvals
- (See Table C)

---

Model G Intermediate Upright Sprinkler Components and Dimensions

![Sprinkler Diagram]

Model G Intermediate Upright Sprinklers

<table>
<thead>
<tr>
<th>SIN</th>
<th>K-factor (US)</th>
<th>K-factor (Metric)</th>
<th>Threads</th>
<th>Approvals</th>
</tr>
</thead>
<tbody>
<tr>
<td>R1425</td>
<td>5.60</td>
<td>80</td>
<td>1/2&quot; NPT, ISO 7-R1/2</td>
<td>UL, FM</td>
</tr>
<tr>
<td>R1427</td>
<td>8.00</td>
<td>115</td>
<td>3/4&quot; NPT, ISO 7-R3/4</td>
<td>UL, FM</td>
</tr>
</tbody>
</table>

Table C

---

Bulletin 110
March 2022

www.reliablesprinkler.com
Model G Pendent Sprinkler

Technical Specifications

| Style: | Pendent
|        | Recessed Pendent
| Threads: | (See Table D)
| Nominal K-Factor: | (See Table D)
| Max. Working Pressure: | 175 psi (12 bar)

Material Specifications

| Thermal Sensor: | Solder Capsule
| Sprinkler Frame: | Brass Alloy
| Cap: | Bronze Alloy with PTFE
| Load Screw: | Brass Alloy
| Deflector: | Brass Alloy

Sprinkler Finishes

(See Table F)

Sensitivity

Standard response

Temperature Ratings

135°F (57°C)
165°F (74°C)
212°F (100°C)
286°F (141°C)

Notes:
1. 286°F (141°C) temperature rated sprinklers not approved for recessed installations.
2. FM Approval of Model G Recessed sprinkler for ordinary and extra hazard occupancies is limited to wet pipe systems only.
3. Not suitable for recessed installations.

Sprinkler Wrenches

Model W2 (non-recessed pendent)
Model RC1 (recessed pendent)

Listings and Approvals

(See Table D)

Model G Pendent Sprinkler Components and Dimensions

![Diagram of Model G Pendent Sprinkler components and dimensions]

Model G Pendent Sprinklers

<table>
<thead>
<tr>
<th>SIN</th>
<th>K-factor (US)</th>
<th>K-factor (Metric)</th>
<th>Threads</th>
<th>Approvals</th>
</tr>
</thead>
<tbody>
<tr>
<td>R1011</td>
<td>2.8</td>
<td>40</td>
<td>1/2&quot; NPT, ISO 7-R1/2</td>
<td>UL, FM</td>
</tr>
<tr>
<td>R1013</td>
<td>4.2</td>
<td>60</td>
<td>1/2&quot; NPT, ISO 7-R1/2</td>
<td>UL</td>
</tr>
<tr>
<td>R1015</td>
<td>5.6</td>
<td>80</td>
<td>1/2&quot; NPT, ISO 7-R1/2</td>
<td>UL, FM, LPCB, EC (1438-CPR-0053)</td>
</tr>
<tr>
<td>R1016</td>
<td>8.0</td>
<td>115</td>
<td>1/2&quot; NPT, ISO 7-R1/2</td>
<td>UL, FM</td>
</tr>
<tr>
<td>R1017</td>
<td>8.0</td>
<td>115</td>
<td>3/4&quot; NPT, ISO 7-R3/4</td>
<td>UL, FM, LPCB, EC (1438-CPR-0057)</td>
</tr>
</tbody>
</table>
Model G Horizontal Sidewall Sprinkler

Technical Specifications
- **Style:** Horizontal Sidewall
- **Threads:** (See Table E)
- **Nominal K-Factor:** See Table E
- **Max. Working Pressure:** 175 psi (12 bar)

Material Specifications
- **Thermal Sensor:** Solder Capsule
- **Sprinkler Frame:** Brass Alloy
- **Cap:** Bronze Alloy with PTFE
- **Load Screw:** Brass Alloy
- **Deflector:** Brass Alloy

Sprinkler Finishes
(See Table F)

Sensitivity
- Standard response

Temperature Ratings
- 135°F (57°C)
- 165°F (74°C)
- 212°F (100°C)
- 286°F (141°C)

Recessed Escutcheons
- **F1 (UL)**

Guards & Shields
- **D-1 Guard (UL, all SIN)**
- **C-1 Guard (FM, SIN R1235 only)**

Sprinkler Wrenches
- **Model W2 (non-recessed sidewall)**
- **Model RC-1 (recessed sidewall)**

Listings and Approvals
(See Table E)

Notes:
1. Listed for use with 135°F (57°C) temperature rated sprinkler only.
2. cULus Listed for Light and Ordinary Hazard when installed exposed or surface mounted. Listed for Light Hazard ONLY when installed recessed.
3. Not suitable for recessed horizontal sidewall installations.

Model G Horizontal Sidewall Sprinkler Components and Dimensions

**Table E**

<table>
<thead>
<tr>
<th>SIN</th>
<th>K-factor (US)</th>
<th>K-factor (Metric)</th>
<th>Threads</th>
<th>Approvals</th>
</tr>
</thead>
<tbody>
<tr>
<td>R1231</td>
<td>2.8</td>
<td>40</td>
<td>1/2&quot; NPT, ISO 7-R1/2</td>
<td>UL</td>
</tr>
<tr>
<td>R1233</td>
<td>4.2</td>
<td>60</td>
<td>1/2&quot; NPT, ISO 7-R1/2</td>
<td>UL</td>
</tr>
<tr>
<td>R1235</td>
<td>5.6</td>
<td>80</td>
<td>1/2&quot; NPT, ISO 7-R1/2</td>
<td>UL, FM, LPCB</td>
</tr>
<tr>
<td>R1236</td>
<td>8.0</td>
<td>115</td>
<td>1/2&quot; NPT, ISO 7-R1/2</td>
<td>UL</td>
</tr>
<tr>
<td>R1237</td>
<td>8.0</td>
<td>115</td>
<td>3/4&quot; NPT, ISO 7-R3/4</td>
<td>UL</td>
</tr>
</tbody>
</table>

Note: Please refer to Figure 7 for recessed installation.
Model G Vertical Sidewall Sprinkler

Technical Specifications
- **Style:**
  - Upright Vertical Sidewall
  - Pendent Vertical Sidewall
- **Threads:** 1/2" NPT or ISO 7-R1/2
- **Nominal K-Factor:** 5.6 (80 metric)
- **Max. Working Pressure:** 175 psi (12 bar)

Material Specifications
- **Thermal Sensor:** Solder Capsule
- **Sprinkler Frame:** Brass Alloy
- **Cap:** Bronze Alloy with PTFE
- **Load Screw:** Brass Alloy
- **Deflector:** Brass Alloy

Sprinkler Finishes
(See Table F)

Sensitivity
- Standard response

Temperature Ratings
- 135°F (57°C)
- 155°F (68°C)
- 175°F (79°C)
- 200°F (93°C)
- 286°F (141°C)

Guards & Shields
- C-1 Guard (FM)

Sprinkler Wrenches
- Model W2

Listings and Approvals
- FM Approved
- LPCB
- EC (1438-CP-0055)

Notes:
1. Listed and approved for Light Hazard ONLY.

Model G Vertical Sprinkler Components and Dimensions

---

[Figure 5]
Recessed Installation: G Horizontal Sidewall Sprinklers

Figure 7

MODEL G PENDENT SPRINKLER
WITH MODEL F1 RECESSED ESCUTCHEON
(TOP VIEW)

G Escutcheon

F1 Recessed
**Maintenance**

Reliable Model G series sprinklers should be inspected and the sprinkler system maintained in accordance with NFPA 25, as well as the requirements of any authorities having jurisdiction.

Prior to installation, sprinklers should remain in the original cartons and packaging until used. This will minimize the potential for damage to sprinklers that could cause improper operation or non-operation.

Do not clean sprinklers with soap and water, ammonia liquid or any other cleaning fluids. Remove dust by gentle vacuuming without touching the sprinkler.

Replace any sprinkler which has been painted (other than factory applied). A stock of spare sprinklers should be maintained to allow quick replacement of damaged or operated sprinklers. Failure to properly maintain sprinklers may result in inadvertent operation or non-operation during a fire event.

**Application**

Model G Series standard spray upright and pendant sprinklers having K-factors of 5.6 (80) and higher are permitted to be used in all occupancy classifications and building construction types unless otherwise noted.

Model G Series standard spray upright and pendant sprinklers having K-factors less than 5.6 (80) are limited to light hazard occupancies.

Model G Series sidewall sprinklers shall only be installed in light hazard occupancies with smooth, horizontal or sloped, flat ceilings unless otherwise noted.
Installation
Model G Series sprinklers must be installed in accordance with NFPA 13 and the requirements of all applicable authorities having jurisdiction.

Model G Series sprinklers must be installed with the Reliable sprinkler installation wrench identified in this Bulletin. Any other wrench may damage the sprinkler. A leak tight sprinkler joint can be obtained with a torque of 8 to 18 lb-ft (11 - 24 N·m) for 1/2” sprinklers and a torque of 14-20 lb-ft (19 - 27 N·m) for 3/4” sprinklers after applying appropriate thread sealant.

Do not tighten sprinklers over the maximum recommended installation torque. Exceeding the maximum recommended installation torque may cause leakage or impairment of the sprinkler.

Guarantee
For the guarantee, terms, and conditions, visit www.reliablesprinkler.com.

Ordering Information
Specify the following when ordering:

Model
• G

Deflector/Orientation
• Upright
• Upright Intermediate
• Pendent
• G Recessed
• Horizontal Sidewall
• Vertical Sidewall

Temperature Rating
• See sprinkler technical specifications

Sprinkler Finish
• See Table F

Recessed Escutcheon*
• G
• F1

Escutcheon Finish
• See Table F

Sprinkler Wrench
• Model W2 (upright, non-recessed pendent, and sidewall)
• Model RC1 (recessed)

Guards and Shields
• See sprinkler technical specifications

*Note: 286°F (141°C) sprinklers are not listed to be used recessed.