

# Reliable

## Model G5 Series Sprinklers Available with Solid, Perforated, or Gasket Cover Plate

## Standard Coverage, Concealed Pendent K2.8, 4.2, 5.6, & 8.0 (40, 60, 80, & 115 metric)

### Product Features

- Flat concealed cover plate available solid or perforated in a variety of finishes.
- **NEW: Stainless Steel Clad cover plate (see Table H).**
- **3/4" (19 mm) cover plate adjustment.**
- **Cover plate available with optional gasket.**

### Product Description

Model G5 series sprinklers are standard coverage, flat plate concealed sprinklers designed for installation in accordance with NFPA 13. The sprinklers are offered with a standard Model G4 cover plate (solid or perforated), a Model G4 cover plate with a Quick-response (QR) gasket, or a Model G4 cover plate with a Standard-response (SR) gasket. Model G5 sprinklers must only be used with the Model G4 cover plate listed or approved with the sprinkler. All Model G5 series sprinklers use a fusible-link operating element. Table A provides a summary of available Model G5 series sprinklers, along with Listing and Approval information for each sprinkler and cover plate combination.

### Model G5 Series Sprinkler Cover Plates



Model G5 Series Sprinkler Summary

Table A

Sprinkler Model	K-Factor gpm/psi <sup>1/2</sup> (l/min/bar <sup>1/2</sup> )	Cover Plate Model	Listings and Approvals	Sensitivity	Max. Working Pressure psi (bar)	Sprinkler Identification Number (SIN)
G5-28	2.8 (40)	G4	cULus	QR	175 (12)	RA3411
			FM	SR		
		G4 QR Gasket	cULus	QR		
		G4 SR Gasket	cULus, FM	SR		
G5-42	4.2 (60)	G4	cULus	QR	175 (12)	RA3413
			G4 QR Gasket	cULus		
		G4 SR Gasket	cULus	SR		
G5-56	5.6 (80)	G4	cULus	QR	250 (17)	RA3415
			FM, LPCB, VdS, CE	SR	175 (12)	
		G4 QR Gasket	cULus	QR	250 (17)	
		G4 SR Gasket	cULus	SR	250 (17)	
		G4 SR Gasket	FM	SR	175 (12)	
G5-56 300	5.6 (80)	G4	cULus	QR	300 (21)	RA4014
		G4 QR Gasket				
		G4 SR Gasket				
G5-80	8.0 (115)	G4	cULus	QR	175 (12)	RA3412
			G4 QR Gasket	cULus		
		G4 SR Gasket	cULus	SR		

**Model G5-28 Standard Coverage, Concealed Pendent Sprinkler**

**SIN RA3411**

**Technical Specifications**

**Style:** Flat Concealed Pendent  
**Threads:** 1/2" NPT or ISO 7-1 R 1/2  
**Nominal K-Factor:** 2.8 (40 metric)  
**Max. Working Pressure:** 175 psi (12 bar)

**Material Specifications**

**Fusible Link:** Beryllium Nickel  
**Sprinkler Body:** Brass Alloy  
**Levers:** Bronze Alloy  
**Yoke:** Brass Alloy  
**Sealing washer:** Nickel with PTFE  
**Load Screw:** Bronze Alloy  
**Towers:** Copper Alloy  
**Pins:** Stainless Steel  
**Deflector:** Bronze Alloy  
**Cup:** Steel

**Sprinkler Temperature Ratings:**

165 °F (74 °C) 212 °F (100 °C)

**Sensitivity**

(See Table B)

**Cover Plates**

Model G4 (Solid or Perforated)  
 Model G4 QR Gasket (cULus only)  
 Model G4 SR Gasket

**Cover Plate Finishes**

(See Table G)

**Sprinkler Wrench**

Model FC

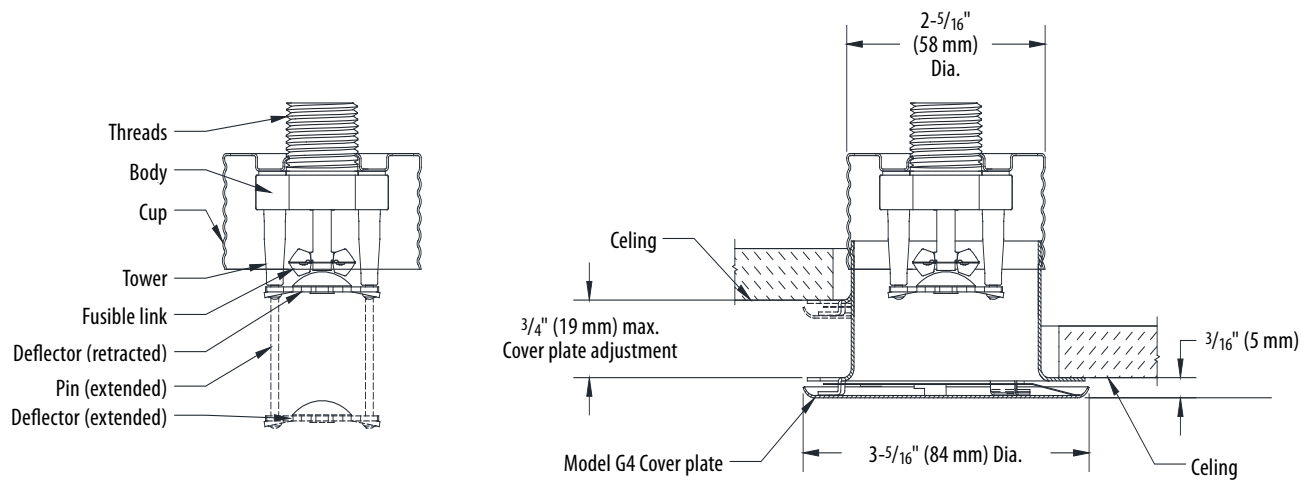
**Listings and Approvals**

cULus Listed (Light Hazard only)  
 FM Approved



**Model G5-28 Sprinkler Components and Dimensions**

**Figure 1**



**Model G5-28 Sprinkler Sensitivity**

**Table B**

Cover Plate Model	Listing or Approval Agency	
	cULus	FM
G4	QR	SR
G4 QR Gasket	QR	--
G4 SR Gasket	SR	SR

QR: Quick-response  
 SR: Standard-response

**Model G5-42 Standard Coverage, Concealed Pendent Sprinkler**

**SIN RA3413**

**Technical Specifications**

**Style:** Flat Concealed Pendent  
**Threads:** 1/2" NPT or ISO 7-1 R 1/2  
**Nominal K-Factor:** 4.2 (60 metric)  
**Max. Working Pressure:** 175 psi (12 bar)

**Material Specifications**

**Fusible Link:** Beryllium Nickel  
**Sprinkler Body:** Brass Alloy  
**Levers:** Bronze Alloy  
**Yoke:** Brass Alloy  
**Sealing washer:** Nickel with PTFE  
**Load Screw:** Bronze Alloy  
**Towers:** Copper Alloy  
**Pins:** Stainless Steel  
**Deflector:** Bronze Alloy  
**Cup:** Steel

**Sprinkler Temperature Ratings**

165 °F (74 °C)  
 212 °F (100 °C)

**Sensitivity**  
 (See Table C)

**Cover Plates**  
 Model G4 (Solid or Perforated)  
 Model G4 QR Gasket  
 Model G4 SR Gasket

**Cover Plate Finishes**  
 (See Table G)

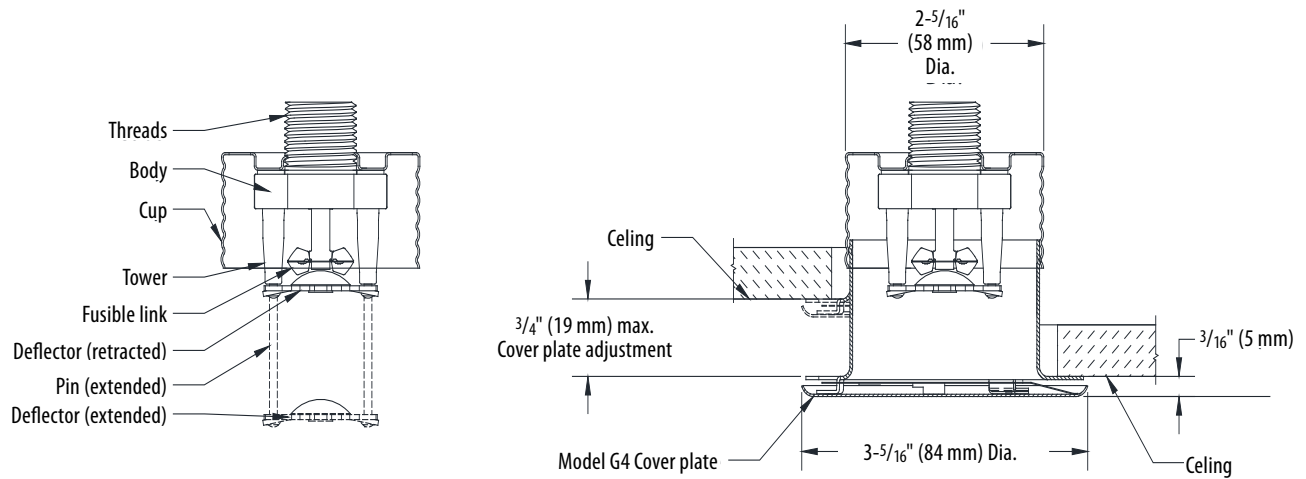
**Sprinkler Wrench**  
 Model FC

**Listings and Approvals**  
 cULus Listed (Light Hazard only)



**Model G5-42 Sprinkler Components and Dimensions**

**Figure 2**



**Model G5-28 Sensitivity**

**Table C**

Cover Plate Model	Listing or Approval Agency
	cULus
G4	QR
G4 QR Gasket	QR
G4 SR Gasket	SR

QR: Quick-response  
 SR: Standard-response

**Technical Specifications**

**Style:** Flat Concealed Pendent  
**Threads:** 1/2" NPT or ISO 7-1 R 1/2  
**Nominal K-Factor:** 5.6 (80 metric)  
**Max. Working Pressure:**  
 175 psi (12 bar)  
 250 psi (17 bar) (cULus only)

**Material Specifications**

**Fusible Link:** Beryllium Nickel  
**Sprinkler Body:** Brass Alloy  
**Levers:** Bronze Alloy  
**Yoke:** Brass Alloy  
**Sealing washer:** Nickel with PTFE  
**Load Screw:** Bronze Alloy  
**Towers:** Copper Alloy  
**Pins:** Stainless Steel  
**Deflector:** Bronze Alloy  
**Cup:** Steel

**Sprinkler Temperature Ratings**

165 °F (74 °C)  
 212 °F (100 °C) (cULus, FM, LPCB, CE only)

**Sensitivity**

(See Table D)

**Cover Plates**

Model G4 (Solid or Perforated)  
 Model G4 QR Gasket (cULus only)  
 Model G4 SR Gasket (cULus and FM only)

**Cover Plate Finishes**

(See Table G)

**Sprinkler Wrench**

Model FC

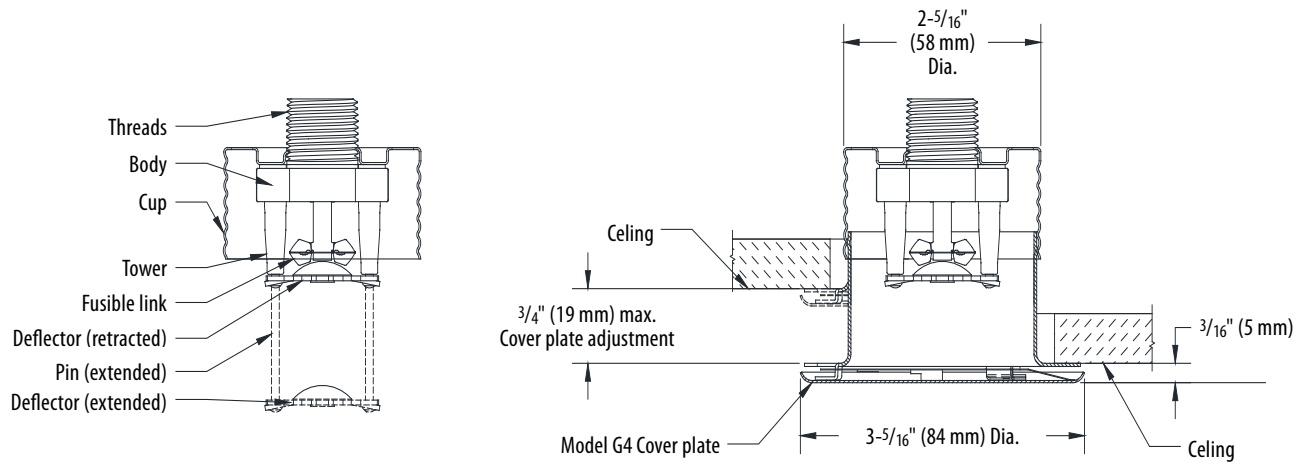
**Listings and Approvals**

cULus Listed (Light & Ordinary Hazard only)  
 FM Approved  
 LPCB Approved  
 VdS Approved [165 °F (74 °C) only]  
 CE Listed



**Model G5-56 Sprinkler Components and Dimensions**

**Figure 3**



**Model G5-56 Sensitivity**

**Table D**

Cover Plate Model	Listing or Approval Agency		
	cULus	FM	LPCB, VdS, CE
G4	QR	SR	SR
G4 QR Gasket	QR	--	--
G4 SR Gasket	SR	--	--

QR: Quick-response  
 SR: Standard-response

**Technical Specifications**

**Style:** Flat Concealed Pendent  
**Threads:** 1/2" NPT or ISO 7-1 R 1/2  
**Nominal K-Factor:** 5.6 (80 metric)  
**Max. Working Pressure:** 300 psi (21 bar)

**Material Specifications**

**Fusible Link:** Beryllium Nickel  
**Sprinkler Body:** Brass Alloy  
**Levers:** Bronze Alloy  
**Yoke:** Brass Alloy  
**Sealing washer:** Nickel with PTFE  
**Load Screw:** Bronze Alloy  
**Towers:** Copper Alloy  
**Pins:** Stainless Steel  
**Deflector:** Bronze Alloy  
**Cup:** Steel

**Sprinkler Temperature Ratings**

165 °F (74 °C)  
 212 °F (100 °C)

**Sensitivity**

(See Table E)

**Cover Plates**

Model G4 (Solid or Perforated)  
 Model G4 QR Gasket  
 Model G4 SR Gasket

**Cover Plate Finishes**

(See Table G)

**Sprinkler Wrench**

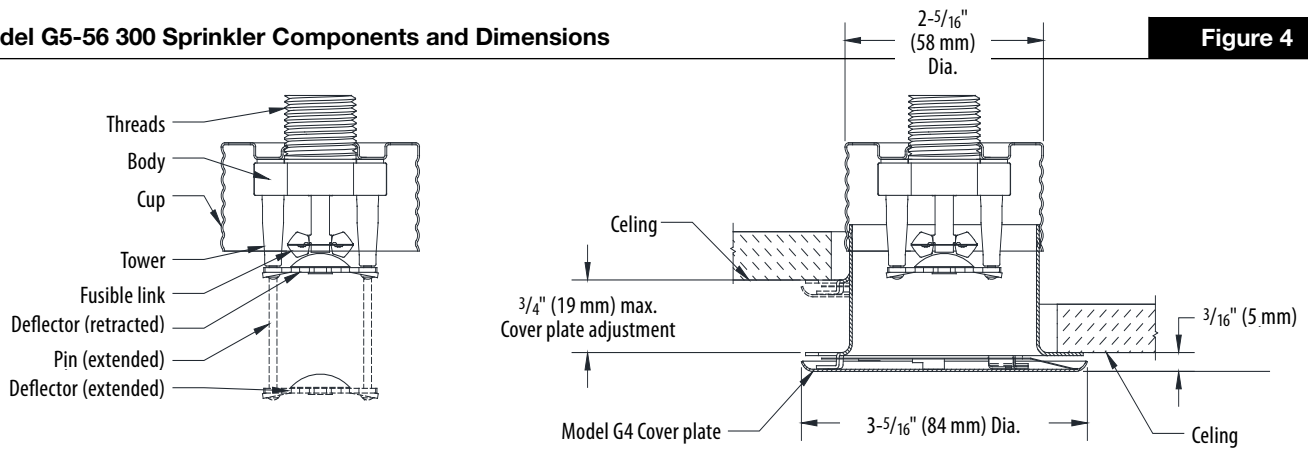
Model FC

**Listings and Approvals**

cULus Listed (Light & Ordinary Hazard only)



**Model G5-56 300 Sprinkler Components and Dimensions**



**Figure 4**

**Model G5-56 300 Sensitivity**

**Table E**

Cover Plate Model	Listing or Approval Agency
	cULus
G4	QR
G4 QR Gasket	QR
G4 SR Gasket	SR

QR: Quick-response  
 SR: Standard-response

**Model G5-80 Standard Coverage, Concealed Pendent Sprinkler**

**SIN RA3412**

**Technical Specifications**

**Style:** Flat Concealed Pendent  
**Threads:** 3/4" NPT or ISO 7-1 R3/4  
**Nominal K-Factor:** 8.0 (115 metric)  
**Max. Working Pressure:** 175 psi (12 bar)

**Material Specifications**

**Fusible Link:** Beryllium Nickel  
**Sprinkler Body:** Brass Alloy  
**Levers:** Bronze Alloy  
**Yoke:** Brass Alloy  
**Sealing washer:** Nickel with PTFE  
**Load Screw:** Bronze Alloy  
**Towers:** Copper Alloy  
**Pins:** Stainless Steel  
**Deflector:** Bronze Alloy  
**Cup:** Steel

**Sprinkler Temperature Ratings**

165 °F (74 °C)  
 212 °F (100 °C)

**Sensitivity**  
 (See Table F)

**Cover Plates**

Model G4 (Solid or Perforated)  
 Model G4 QR Gasket  
 Model G4 SR Gasket

**Cover Plate Finishes**  
 (See Table G)

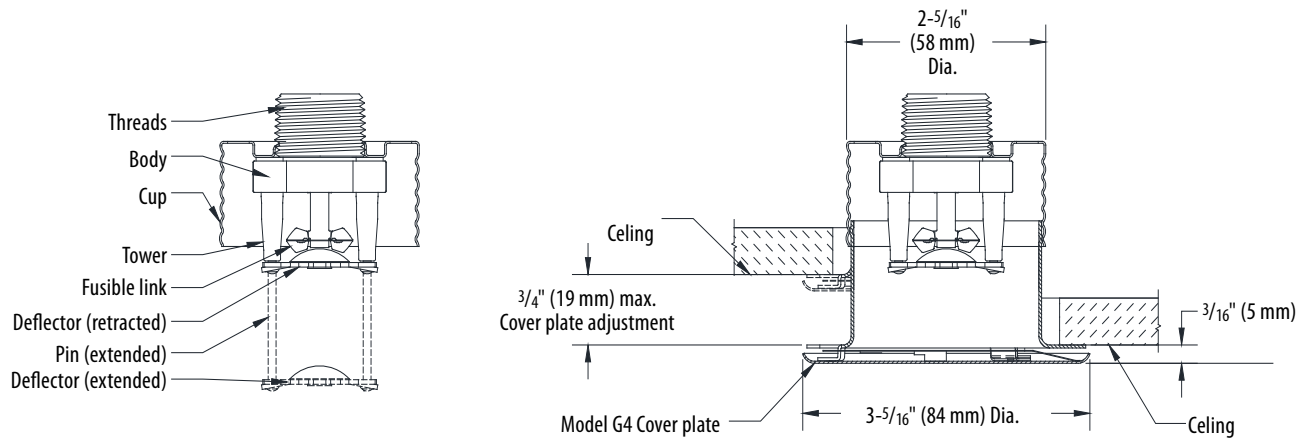
**Sprinkler Wrench**  
 Model FC

**Listings and Approvals**  
 cULus Listed (Light & Ordinary Hazard only)



**Model G5-80 Sprinkler Components and Dimensions**

**Figure 5**



**Model G5-80 Sensitivity**

**Table F**

Cover Plate Model	Listing or Approval Agency
	cULus
G4	QR
G4 QR Gasket	QR
G4 SR Gasket	SR

QR: Quick-response  
 SR: Standard-response

## Installation Dimensions and Cover Plate Information

**Table G**

Cover Plate Model	Cover Plate Diameter Inch (mm)	Recommended Hole Diameter in Ceiling Inch (mm)	Cover Plate Adjustment Inch (mm)	Min. to Max. Face of Fitting to Ceiling <sup>(1)</sup> Inch (mm)	Min. to Max. Dropped Deflector Distance below Ceiling Inch (mm)	Cover Plate Temperature Rating °F (°C)
G4 <sup>(2)</sup>	3-5/16 (84)	2-5/8 (67)	3/4 (19)	1-1/2 to 2-1/4 (38 to 57)	1/4 to 1 (6 to 25)	135 °F (4) (57 °C)
G4 QR Gasket <sup>(3)</sup>	3-11/16 (94)					or
G4 SR Gasket <sup>(3)</sup>	4 (101 mm)					165 °F (5) (74 °C)

**Notes:**

1. Face of fitting to ceiling dimensions are based on nominal thread make up. Verify dimensions based on fitting and thread sealing method prior to installation. A 1/2" x 1/2" brass nipple extension (Reliable P/N 6999991900) is available to assist with replacement of Reliable Model G4A sprinklers.
2. Model G4 cover plates are available either solid or perforated.
3. Model G4 QR Gasket and Model G4 SR Gasket cover plates are sold as assembled units including both the cover plate and gasket. Model G4 QR Gasket and Model G4 SR Gasket cover plates and gaskets are not interchangeable.
4. For use with 165 °F (74 °C) temperature rated sprinklers where the Maximum Ceiling Temperature does not exceed 100 °F (38 °C).
5. For use with 212 °F (100 °C) temperature rated sprinklers where the Maximum Ceiling Temperature does not exceed 150 °F (66 °C).

## Cover Plate Finishes(1)

**Table H**

Standard Finishes	Special Application Finishes
White Paint Chrome	Off White Paint Black Paint Custom Color Paint – Specify <sup>(2)</sup> Raw Brass (Lacquered) Bright Brass
	Finished Bronze Black Plated Satin Chrome Stainless Steel Clad <sup>(3)</sup>

**Notes:**

1. Paint or any other coating applied over the factory finish will void all approvals and warranties. Gaskets for Model G4 QR Gasket and Model G4 SR Gasket cover plates are only available in white.
2. Custom color paint is semi-gloss unless specified otherwise.

Stainless steel clad cover plates are Type 316 Stainless Steel on the finished side and C102 Copper Alloy on the back side. Cover plates are not listed or approved as corrosion resistant. Stainless steel clad cover plates are not available perforated.

## Application

Model G5 series sprinklers are standard coverage, flat plate concealed pendent sprinklers. The sprinklers are intended for use in accordance with NFPA 13, as well as the requirements of the applicable approval agencies.

Model G5 series sprinklers are available as either Quick-response (QR) or Standard-response (SR) depending on the approval agency and cover plate selected.

Model G5 series sprinklers use Model G4 flat cover plates. Model G4 QR Gasket and G4 SR Gasket cover plates are available to limit air and dust movement through the ceiling.

## Listing & Approval Agencies

Individual Model G5 series sprinkler may be listed or approved by the following agencies:

Underwriters Laboratories, Inc. and UL Canada (cULus)

Listing Category: Sprinklers, Automatic and Open

Guide Number: VNIV

FM Approvals (FM)

Loss Prevention Certification Board (LPCB)

VdS Schadenverhütung GmbH (VdS)

EC-Certificate of Conformity 0832-CPD-2062 (CE)

See Table A and the individual sprinkler data sheets in this Bulletin for listings and approvals applicable to each sprinkler.

## Installation

Model G5 series sprinklers are intended to be installed in accordance with NFPA 13 and the requirements of other applicable authorities having jurisdiction. Model G5 series sprinklers must not be installed in ceilings with positive pressure in the space above.

Model G5 series sprinklers are shipped with a protective cap that should remain on the sprinkler until installed. The protective cap should be replaced following installation of the sprinkler and permanently removed only when the cover plate is installed and the sprinkler system is placed in service following construction.

Model G5 series sprinkler are installed with the Model FC wrench. The use of any other wrench to installed Model G5 series sprinklers is not permitted and may damage the sprinkler. Temporarily remove the protective cap during installation of the sprinkler. Insert the Model FC wrench over the sprinkler until the wrench engages the body. Do not wrench any other part of the sprinkler/cup assembly. The Model FC wrench is designed to be turned with a standard 1/2" square drive. Tighten the sprinkler into the fitting after applying a PTFE based thread sealant to the sprinkler's threads. Recommended installation torque is specified in Table I.

Sprinkler Threads	Recommended Installation Torque (min. – max.)	
	ft-lb	N-m
	1/2" NPT or ISO 7-1 R 1/2	8-18
3/4" NPT or ISO 7-1 R 3/4	14-20	19-27

Do not exceed the maximum recommended torque. Exceeding the maximum recommended torque may cause leakage or impairment of the sprinkler. Use care when inserting or removing the wrench from the sprinkler to avoid damage to the sprinkler.



Install the cover plate by hand, turning the cover in the clockwise direction until it is tight against the ceiling. For Model G4 QR Gasket and Model G4 SR Gasket cover plates, the gasket

should be attached to the flange of the cover plate skirt only. Do not glue the gasket in place or allow the gasket to overlap both the cover plate and the flange of the skirt.

## Maintenance

Reliable Model G5 series sprinkler 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 or cover plate which has been painted (other than factory applied). Properly installed Model G4 cover plates will have an air gap that is required for proper operation, do not seal the gap or paint the cover plates. Model G5 series sprinklers have holes in the cup that must remain unobstructed.

Replace any sprinkler which has been damaged. 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.

## Guarantee

For the Reliable Automatic Sprinkler Co., Inc. guarantee, terms, and conditions, visit [www.reliablesprinkler.com](http://www.reliablesprinkler.com).

## Patents

Model G5 series sprinklers may be covered by one or more of the following patents:  
 U.S. Patent 6,554,077, U.S. Patent 7,275,603, U.S. Patent 8,776,903, U.S. Patent 9,248,327

## Ordering Information

Specify the following when ordering.

### Sprinkler

- Model (G5-28, G5-42, G5-56, G5-56 300, G5-80)
- Temperature Rating [165 °F (74 °C) or 212 °F (100 °C)]
- Threads (NPT or ISO 7-1)

### Cover Plate

- Model (G4 [Solid], G4 Perforated, G4 QR Gasket, G4 SR Gasket)
- Finish (See Table G)

### Sprinkler Wrench

- Model FC