Reliable®

Model GL112 Series Sprinklers

Storage & Non-Storage Sprinklers
K11.2 (160 metric)

Product Description

Reliable Model GL112 upright and pendent sprinklers are standard coverage quick response sprinklers utilizing a levered fusible allow solder link thermal element in 165°F (74°C) or 212°F (100°C) temperature rating. These sprinklers are intended for use in hydraulically calculated control mode density area (CMDA) storage and non-storage occupancies in accordance with the area/density curves of NFPA 13 or other applicable standards.

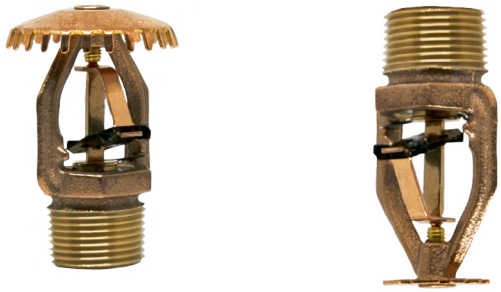
The Model GL112 sprinkler is FM Approved as a quick response storage and non-storage sprinkler when used in accordance with FM Global Property Loss Prevention Data Sheets.

The Model GL112 is provided with 3/4-inch NPT or ISO 7-R3/4 threads. Sprinklers without guards are installed using the Model H wrench.

For use as an intermediate level sprinkler, the Model GL112 upright sprinkler is available with a factory installed water shield. Various other water shields, guards, or guard/shield options are also available for both upright and pendent models (please refer to Technical Specifications on following pages). Sprinkler guards or guard/shields may be installed in the field or factory installed. Use of the Model W15 sprinkler wrench is required for installation where a guard is added to the sprinkler prior to threading the assembly into a fitting.

To further the development of environmentally compatible and more sustainable construction methods, Reliable has developed and ASTM International has published an Environmental Product Declarations (EPD) for the Model GL112 Series sprinklers.

Important! Reliable fire sprinklers must be handled, stored, and installed in accordance with the guidelines in Caution Sheet 310 and this bulletin. Failure to follow these instructions may result in unintended operation or nonoperation of the fire protection system.



Upright Pendent

Model GL112 Series Sprinklers



Upright with Factory Installed Shield

Model GL112 Specifications **Table A**

Style	Sprinkler Identification Number (SIN)	Listings and Approvals	Sensitivity	K-Factor
Upright	R3226	FM	Quick Response	11.2 (160 metric)
Pendent	R3216	FM		

Model GL112 Upright Sprinkler — SIN R3226

Technical Specifications
Style: Upright
Threads: 3/4" NPT or ISO 7-1R3/4
Nominal K-Factor: 11.2 (160 metric)
Max. Working Pressure: 175 psi (12 bar)

Material Specifications
Thermal Sensor: Nickel Alloy Solder Link
Sprinkler Frame: Brass Alloy
Button/Cup: Brass Alloy
Sealing Assembly: Brass with PTFE
Load Screw: Bronze
Deflector: Bronze Alloy
Levers: Bronze Alloy
Ejection Spring: Stainless Steel

Sprinkler Finishes
Standard (Bronze) Only

Sensitivity
Quick Response

Temperature Ratings
165°F (74°C)
212°F (100°C)

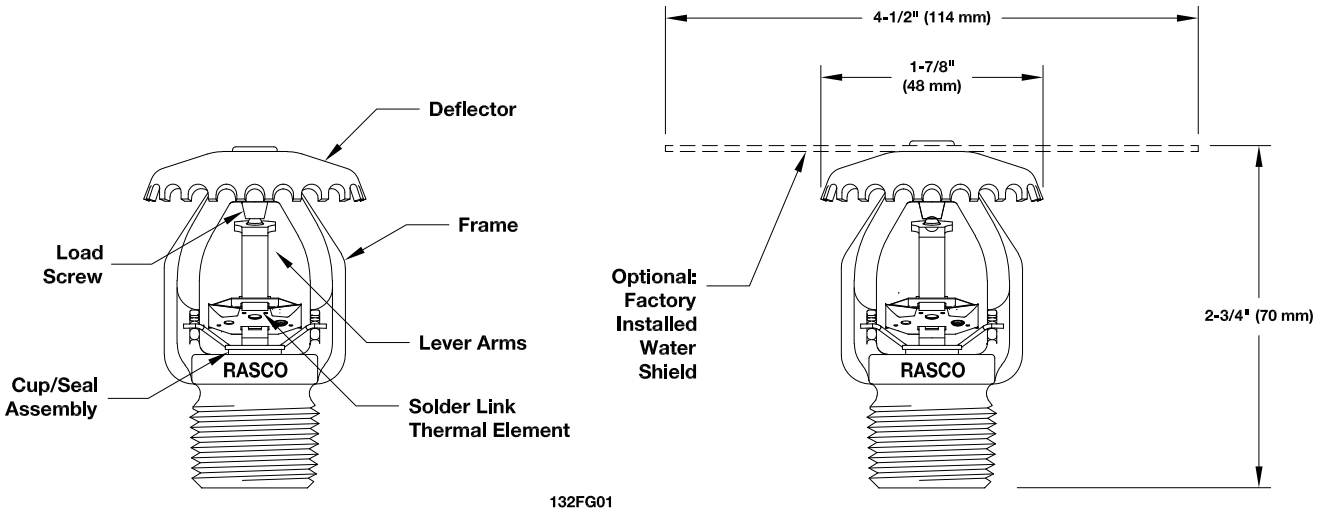
Guards & Water Shields
D-7 Guard & Water Shield
D-8 Guard
Water Shield (factory installed)

Sprinkler Wrench
Model H
Model W15 (when guard is installed prior to make-in)

Listings and Approvals
FM Approved



Model GL112 Upright Components and Dimensions — Figure 1



COMPONENTS **DIMENSIONS**

Model GL112 Pendent Sprinkler — SIN R3216

Technical Specifications
Style: Pendent
Threads: 3/4" NPT or ISO 7-1R3/4
Nominal K-Factor: 11.2 (160 metric)
Max. Working Pressure: 175 psi (12 bar)

Material Specifications
Thermal Sensor: Nickel Alloy Solder Link
Sprinkler Frame: Brass Alloy
Button/Cup: Brass Alloy
Sealing Assembly: Brass Alloy with PTFE
Load Screw: Bronze
Deflector: Bronze Alloy
Levers: Bronze Alloy
Ejection Spring: Stainless Steel

Sprinkler Finishes
Standard (Bronze) Only

Sensitivity
Quick Response

Temperature Ratings
165°F (74°C)
212°F (100°C)

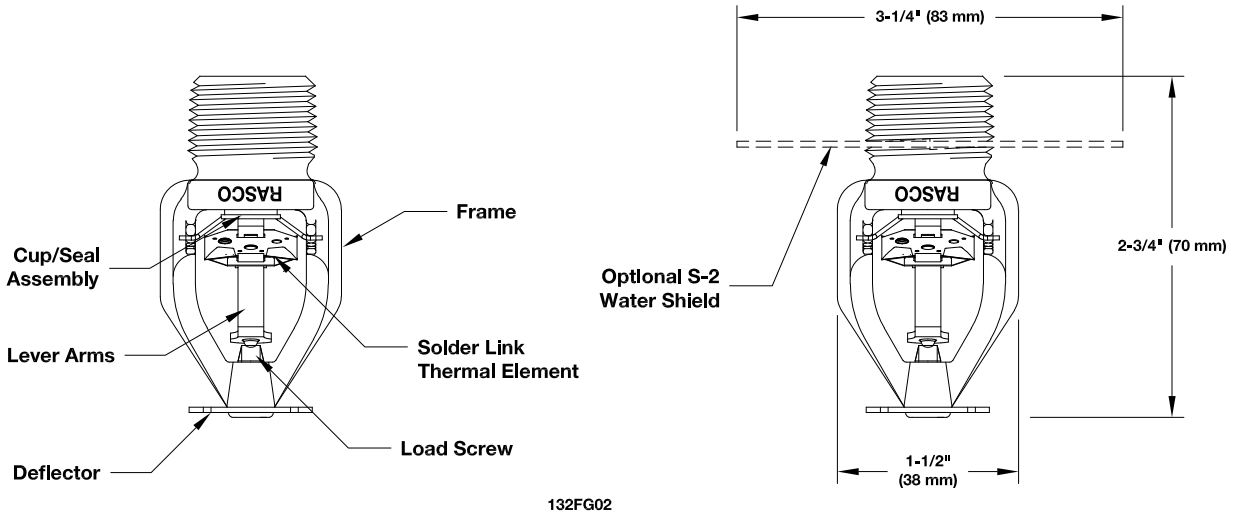
Guards & Water Shields
D-8 Guard
D-9 Guard & Water Shield
S-2 Water Shield

Sprinkler Wrench
Model H
Model W15 (when guard is installed prior to make-in)

Listings and Approvals
FM Approved



Model GL112 Pendent Components and Dimensions — **Figure 2**



Model GL112 Commodity Selection and Design Criteria Overview **Table B**

Storage Type	NFPA	FM Global
Sprinkler Type	CMDA	Storage
Response Type	QR	QR
System Type	Pendent - Wet Upright - Wet, Dry, Preaction	Pendent - Wet Upright - Wet, Dry, Preaction
Temperature Rating °F (°C)	165, 212 (74, 100)	165, 212 (74, 100)
Roof Construction	See NFPA 13	See FM Global 2-0
Ceiling Slope	See NFPA 13	See FM Global 2-0
Maximum Coverage Area	See NFPA 13	See FM Global 2-0
Minimum Coverage Area	See NFPA 13	See FM Global 2-0
Maximum Spacing	See NFPA 13	See FM Global 2-0
Minimum Spacing	See NFPA 13	See FM Global 2-0
Minimum Clearance to Commodity	See NFPA 13	See FM Global 2-0
Sprinkler Distance to Ceiling	See NFPA 13	See FM Global 2-0
Open Frame, Single, Double, Multiple Row, or Portable Rack Storage of Class I - IV Commodity and Group A Plastic	See NFPA 13	See FM 2-0 & 8-9
Solid Pile or Palletized Storage of Class I - IV Commodity and Group A Plastic	See NFPA 13	See FM 2-0 & 8-9
Idle Pallet Storage	See NFPA 13	See FM 2-0, 8-9 & 8-24
Rubber Tire Storage	See NFPA 13	Pendent - N/A Upright - See FM 8-21
Rolled Paper Storage	See NFPA 13	See FM 8-21
Flammable Liquid Storage	See NFPA 13	See FM 7-29 & 8-9
Aerosol Storage	See NFPA 13	See FM 7-31
Auto Components in Portable Racks	See NFPA 13	See FM 2-0 and 8-9

Installation

The Reliable Model GL112 QR sprinkler must be installed according to NFPA Standards or the appropriate FM Global Data Sheets for all area/density methods of design as well as the Authority Having Jurisdiction.

Use only the Model H sprinkler wrench for sprinkler installation or use the Model W15 wrench to install the sprinkler/guard assembly (Figure 3). Any other type of wrench may damage the sprinkler. Damaged sprinklers must be replaced immediately.

Note: Sprinklers should be tightened between 14-20 lb-ft (19-27.1 N·m) torque. Exceeding the maximum recommended torque may cause leakage or impairment of the sprinklers.

Wrenches **Figure 3**



Model H Wrench (sprinkler)



Model W15 Wrench (with guard installed)

Maintenance

Reliable Model GL112 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.

Guarantee

For the Reliable Automatic Sprinkler Co., Inc. guarantee, terms, and conditions, visit www.reliablesprinkler.com.

Ordering Information

Specify the following when ordering.

Model GL112 Sprinkler
- [Upright] [Pendent] [Upright with factory installed shield]

Temperature Rating
- [165°F (74°C)] [212°F (100°C)]

Guard/Shield
- See Technical Specifications

Sprinkler Wrench
- [Model H] [Model W15 (required with pre-installed guards)]

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