GA SERIES / MODEL GA4251

Standard Coverage / Basic Sprinkler
Standard Response / Pendent and Recessed Pendent Sprinkler
K Factor 4.2(60)

Product description

The GA4251 Model sprinkler is a standard coverage pendent sprinkler that combines the durability of a basic sprinkler with the attractive low-profile design of a decorative sprinkler. It can be installed with or without an escutcheon, depending on the environment in which it will be installed and the importance of its finish.

The GA4251 sprinkler is standard response with a 5 mm bulb.

The product is designed for use in commercial and industrial buildings.

The bulb contains a quantity of special liquid hermetically sealed inside a glass capsule, so that when the liquid expands, the bubble disappears and later at the appropriate temperature the bulb breaks letting the water outlet free to discharge.

Listings and Approvals



Listed by cULus

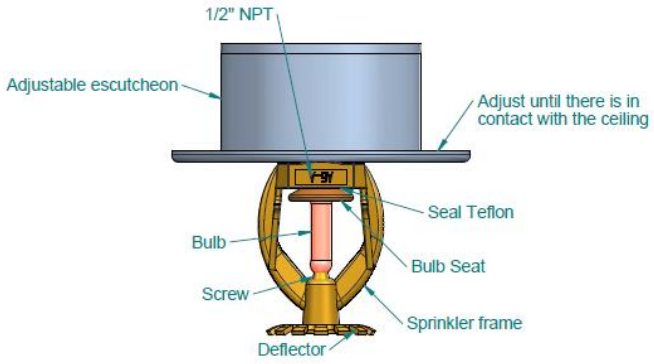
Technical data

Model	GA4251
Certifications	UL
Position	Pendent
K Factor	4.2 (60)
Thread diameter	½" NPT
Response	Standard (Bulb 5 mm)
Maximum working pressure	175 psi (12,1 bar)
Sprinkler temperature	135ºF (57ºC) 155ºF (68ºC) 175ºF (79ºC) 200ºF (93ºC) 286ºF (141ºC) 360ºF (182ºC)
Materials	Frame: Brass Deflector: Bronze Screw: Brass Bulb seat: Brass Seal teflon: Teflon Bulb: Glass, 5 mm size Escutcheon assembly: steel
Finish (Sprinkler)	Bronze, Chrome, White
Finish (Escutcheon)	White, Chrome (1.)

1. For special finishes consult the details in advance with the Technical Office.

Operation

Under standard conditions, the glass bulb contains both a liquid and a small gas bubble. As the ambient temperature rises, the liquid expands, increasing internal pressure and causing the gas bubble to shrink. When the bulb reaches its nominal activation temperature, the pressure becomes sufficient to shatter the glass bulb, allowing the sprinkler to activate and water to flow. The deflector then distributes the water in a specific pattern over the designated coverage area.



Approvals chart

STANDARD COVERAGE SPRINKLER						
Type of response	**Reference**	**Sprinkler Temperature ºF (ºC)**	**Maximum working pressure bar (psi)**	**Nominal K factor gpm/psi^1/2 (lpm/bar^1/2)**	**Thread size (NPT)**	**Approvals**
Standard response	GA4251	135 (57)	12,1 (175)	4.2 (60)	½"	UL
		155 (68)	12,1 (175)	4.2 (60)	½"	UL
		175 (79)	12,1 (175)	4.2 (60)	½"	UL
		200 (93)	12,1 (175)	4.2 (60)	½"	UL
		286 (141)	12,1 (175)	4.2 (60)	½"	UL
		360 (182)	12,1 (175)	4.2 (60)	½"	UL

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Installation

Model GA4251 sprinklers are designed to be installed as specified in this section. They must be installed using the model CO sprinkler wrench for those with escutcheon and the AB wrench for those without escutcheon.

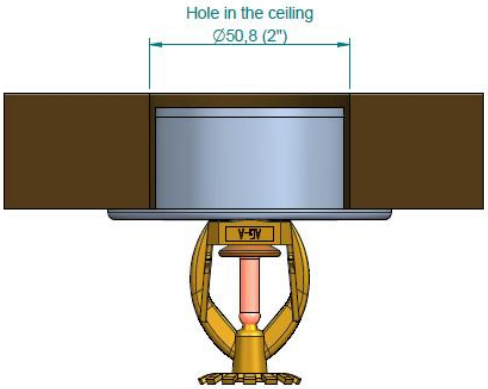
> Do not install any sprinkler if the bulb is broken, leaking or in poor condition. With the sprinkler held horizontally the air bubble must be clearly visible.
>
> If the sprinkler has any visual damage do not install it, replace it with another unit.

The following steps will explain how to install GA4251 sprinklers with escutcheon in steps 1,2,3,4 and without escutcheon in steps 1 and 4:

1. First of all, the sprinkler is removed from its packaging and a visual inspection is carried out to check that it has not suffered any deformation or that none of its parts are in a bad state.
2. Thread the sprinkler with the escutcheon by hand all the way.

Note: Be careful when screwing the sprinkler and do not touch the deflector, always catch when you want to do something to the body.

3. Drill a 2" hole in the ceiling to be able to install our sprinkler with escutcheon correctly.

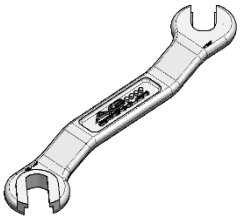


Note: Do not make the hole larger than specified above to ensure that the hole is not visible once the escutcheon is fitted.

4. Thread the sprinkler with or without escutcheon where it is to be finally positioned by applying a force of 8 to 18 ft-lb (10.8 – 24.4 Nm) to obtain a tight ½" (R1/2) NPT joint. Do not tighten the sprinklers above the maximum recommended torque, as this may cause leakage or damage to the sprinklers. The AB or CO sprinkler spanner specially designed for this product is to be used.



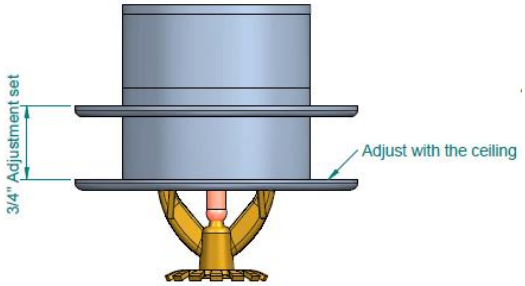
1. Sprinkler wrench with escutcheon



2. Sprinkler wrench without escutcheon

Note: It is important to hold the sprinkler by the body when handling to avoid damage to the sprinklers (do not use force on the deflector).

5. Once the sprinkler is installed if the escutcheon is separated from the ceiling, once the sprinkler is well tightened with its corresponding torque, push the external part of the escutcheon towards the ceiling until it is completely adjusted to the ceiling.



Note: Fit using the ¾" set in the escutcheon as shown in the dimensions section.

Maintenance

GA4251 series sprinklers must be inspected and maintained in accordance with applicable standards according to their approvals (refer to the appropriate data sheet). Do not clean the sprinklers with soap and water, ammonia or other cleaning liquids that may be corrosive. Remove dust with a vacuum cleaner. If the room where the sprinklers are installed needs to be painted, paint it before installing them, if not possible, remove covers before painting. If any sprinkler or cover shows any paint on it replace it immediately. Sprinklers that are leaking or show visible signs of corrosion should be replaced. Sprinklers damaged by dropping, knocking, vending, twisting, slipping or similar should be replaced. A stock of spare sprinklers should be maintained to allow rapid replacement of damaged or cracked sprinklers. Prior to installation sprinklers should be kept in the original packaging until used to minimize the damage to sprinklers.

Temperatures ratings

Classification	Sprinkler temperature		Maximum Ceiling Temp.		Bulb color
	ºF	ºC	ºF	ºC	
Ordinary	135	57	100	38	Orange
Ordinary	155	68	120	49	Red
Intermediate	175	79	150	66	Yellow
Intermediate	200	93	150	66	Green
High	286	141	225	107	Blue

Applicable Regulations

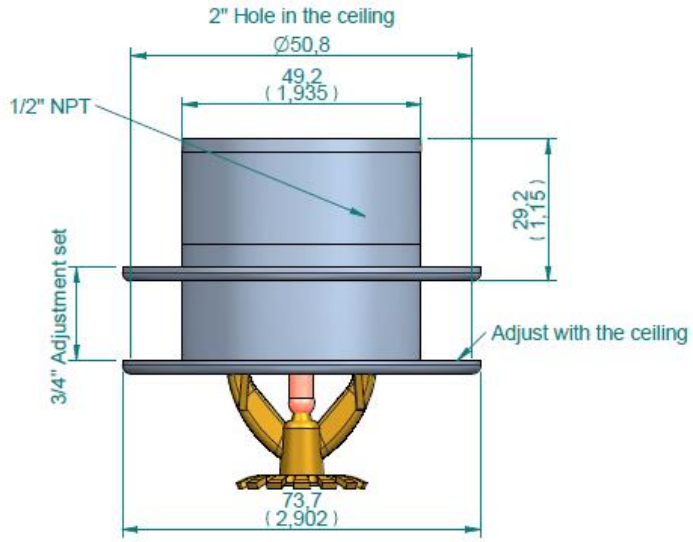
GA Series sprinklers systems must be designed in accordance with the installation and maintenance criteria of NFPA, EN, FM Datasheets and other local and national regulations.

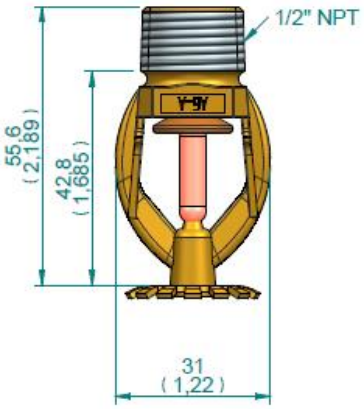
Warranty

For warranty conditions, please contact AG Fire Sprinkler.

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Dimensions





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Transport and Storage

Original Packaging
Automatic sprinklers must be transported and stored exclusively in their original packaging in order to preserve their physical and factor condition.

Proper Handling
Any type of improper stacking or handling that could compromise the structural or functional integrity of the product must be avoided.

Environmental Conditions
Sprinklers must be kept in dry locations, protected from moisture, dust, corrosive agents, and extreme temperatures.
Failure to comply with these conditions may void the warranty and render the product unfit for use.

Pre-Installation Inspection
Before installation, each sprinkler must undergo a visual inspection to ensure there is no physical damage, corrosion, deformation, or other defects.

Removal of Protective Caps
Factory-installed protective caps must only be removed once civil Works are complete, and always before system activation.
⚠ Premature removal of protective caps may cause irreversible damage to the equipment.

Responsibilities and Requirements

Reading Instructions
The user must carefully read all instructions before installing any AG Fire Sprinkler product.

Product Verification
It is the user's responsibility to ensure that AG Fire Sprinkler products are suitable for their intended application, in accordance with industry standards and the technical information provided.
⚠ No document modifies the standard terms of sale or warranty conditions.

Installer Knowledge
The installer must understand how the product works and the reasons for its specific selection.

Safety Regulations
They must be familiar with relevant industry regulations and aware of the risk associated with incorrect installation.

Serious Consequences
Failure to comply with installation requirements and current regulations may compromise system performance, resulting in system failure, personal injury, loss of life, or significant property damage.

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Ordering information

P/N	GAXXXX Y Z

DESCRIPTION	CODE
Pendent	GA4251

Y	1	57ºC	135ºF
	2	68ºC	155ºF
	4	79ºC	175ºF
	5	93ºC	200ºF
	7	141ºC	286ºF
	8	182ºC	360ºF

Z	1	BRONZE
	2	CHROME
	3	WHITE

ACCESSORIES	M

ACCESSORIES	M
Sprinkler wrench model AB	35300030
Sprinkler wrench model CO	35300033
Semi flat escutcheon 1 piece ½" chrome	A002316
Semi flat escutcheon 1 piece ½" white	A009105
Recessed escutcheon 2 pieces ½" chrome	A002331
Recessed escutcheon 2 pieces ½" white	A009106
Telescopic escutcheon ½" chrome	A002379
Telescopic escutcheon ½" white	A009040
Sprinkler guard 1 piece chrome	A004529
Guard K80 1 piece AGA1	14601170
Zinc plated water shield ½"	A006060

Please specify the following when ordering:

Quantity	
Model number	
Type	
Orifice	
Nominal temperature	
Finish of the sprinkler	
Finish of the escutcheon	
Accessories	

The equipment presented in this data sheet must be installed in accordance with the latest relevant standards of the National Fire Protection Association (NFPA), FM Global, LPCB, VdS or other similar organisations, as well as applicable governmental regulations.
This document is not binding. AG Fire Sprinkler reserves the right to make any changes to the document without prior notice.

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