

# AG SERIES / MODEL AG-81

Standard Coverage / Basic Sprinkler Standard Response Sprinkler Recessed Pendent, Pendent & Upright



#### **PRODUCT DESCRITION**

AG Fire Sprinkler Model AG-81, Pendent and Upright sprinklers described in this technical data sheet are standard response, standard coverage 5 mm glass bulb. These sprinklers are designed for use in commercial buildings and factories.

Thermosensitive glass bulb 5 mm is used. The bulb contains a special liquid hermetically sealed in a glass capsule.

Nominal "K" Factor	8,0 (115)
Thread Size	3/4" NPT (R3/4)
Nominal Orifice	17/32" (20 mm)
Temperatures	135°F (57°C) 155°F (68°C) 175°F (79°C) 200°F (93°C) 286°F (141°C) 360°F (182°C)
Maximum / Minimum Working Pressure	175 psi (12,1 bar) / 7 psi (0,48 bar)
Factory tested Pressure	500 psi (34,5 bar)
Materials	Frame: Brass Deflector: CDA Alloy 510 Screw: CDA Alloy 210, 220, 314, 316, 360 or 544 Cup: CDA Alloy 314 or 353 Washer: Nickel Alloy 440 or Alloy CDA 360 Bulb: Glass, 5 mm
Reference	Upright: <b>AG8164</b> <sup>(1) (2) (3) (4)</sup> Pendent & Recessed Pendent: <b>AG8156</b> <sup>(1) (3)</sup>
Finishes <sup>(4)</sup>	Bronze Chrome Polyester coated

## **TECHNICAL DATA**

LPCB approved until 286°F (141°C).
Polyester coated sprinkler FM approved.
Electrolesss Nickel PTFE Plated – UL listed corrosion resistant.
Other finishes available under request.

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#### **OPERATION**

At normal temperatures, the glass bulb contains the fluid in both the liquid phase and the vapor phase. The vapor phase can be seen as a small bubble. As heat is applied, the liquid expands forcing the bubble smaller and smaller as the liquid pressure increases. Continued heating forces the liquid to push out against the bulb, causing to shatter, opening the waterway and allowing the deflector to distribute the discharging water.

#### INSTALLATION

Model AG-81 sprinklers are standard response sprinklers intended for installation as specified in NFPA13. They must also be installed with the Model **AG1** Sprinkler Wrench for pendent and upright models, and the **AG2** Sprinkler Wrench for the recessed model, specifically designed by AG Fire Sprinkler for use with these sprinklers.

A leak tight  $\frac{1}{2}$ " NPT (R1/2) sprinkler joint can be obtained with a torque of 8-18ft-lbs (10.8-24.4N-m). Do not tighten sprinklers over maximum recommended torque. It may cause leakage or impairment of these sprinklers.

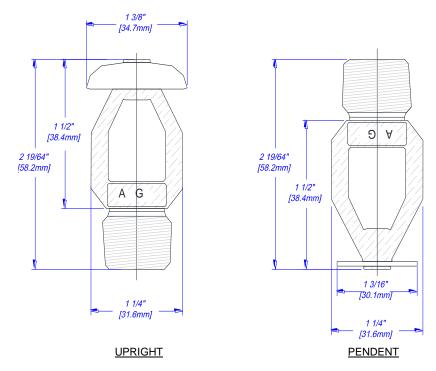
The sprinklers come with an orange protection, to avoid breakage during assembly. Remove this protection once installed and made sure that everything is correct. The AG Sprinkler Wrenches are designed to install sprinklers with the protection still.

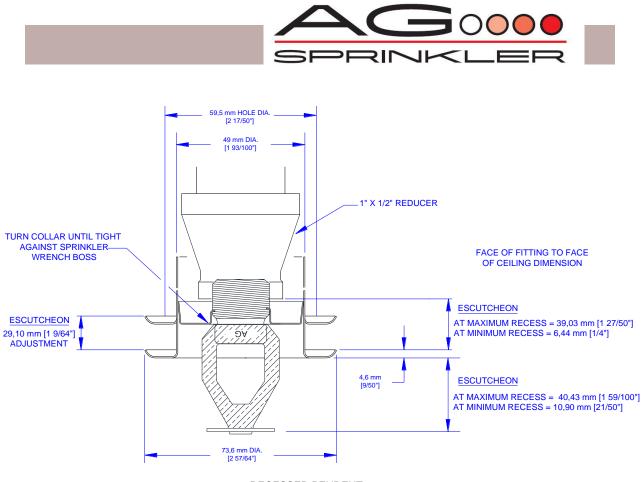
# **TEMPERATURE RATING**

Classification	Nominal Temperature		Máxima Ambient Temperature		Bulb Color
Classification	٩	°C	٩	<b>℃</b>	Bub Color
Ordinary	135	57	100	38	Orange
Ordinary	155	68	100	38	Red
Intermediate	175	79	150	66	Yellow
Intermediate	200	93	150	66	Green
High <sup>(1)</sup>	286	141	225	107	Blue
Very high <sup>(1)</sup>	360	182	300	149	Mauve

(1) Not available for recessed sprinklers.

## DIMENSIONS





RECESSED PENDENT

# ORDERING INFORMATION

Specify:

Quantity	
Model Number	
Туре	
Orifice	
Thread Size	
Temperature	
Finishes	
Quantity - Wrenches	

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## **AG FIRE SPRINKLER**

AG Fire Sprinkler offers a wide selection of components. Then a list of products is presented by AG Fire Sprinkler, we can offer all these components, made with precision to protect people, anywhere, anytime.

- Sprinklers
- Standard Coverage
- Extended Coverage
- $\circ$  Storage
- o Dry
- $\circ$  Accessories
- System Valves
- ∘ Wet
- o Dry
- Preaction Equipment
- Accessories
- Spray System Open Nozzles
  - High Velocity Nozzles
  - Medium Velocity Nozzles
  - Window Nozzles
  - o Hydroshield Nozzles
  - Mushroom Type Nozzles
- Foam equipment
  - Tanks
  - Proportioners
  - Foam Discharge Equipment
  - o Foam Concentrates
- Deluge equipment for Water Spray and Foam
  - Clapper Deluge Valves
  - Diaphragm Deluge Valves
- Monitors
- o Manual Monitors
- Remote Monitors
- Monitor Nozzles
- $\circ~$  Towers and Trolleys
- Valves
- o Butterfly Valves
- Gate Valves
- Check Valves
- Pressure Control Valves
- $\circ~$  Test and Drain
- o Hose, Hydrant and Fire Connection Valves
- Fire Department Connections

The equipment presented in this bulletin is to be installed in accordance with the latest published Standard 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. This documentation is not contractual. AG Fire Sprinkler reserves the right to any kind of change without notice.

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