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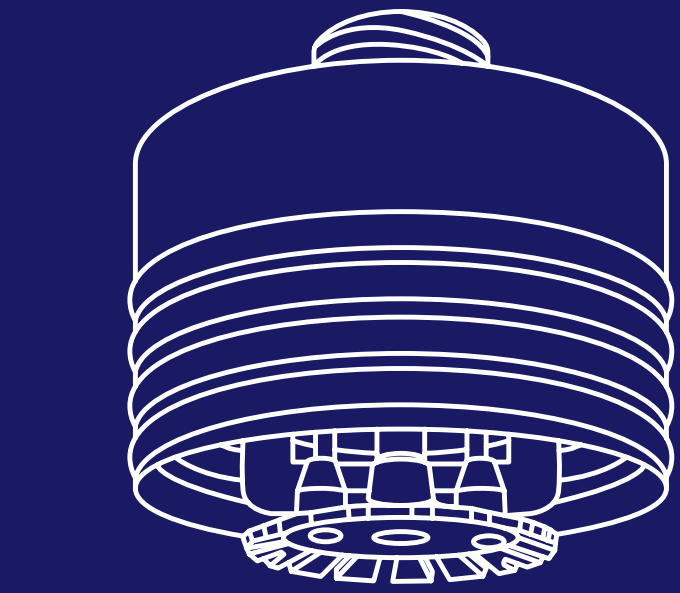

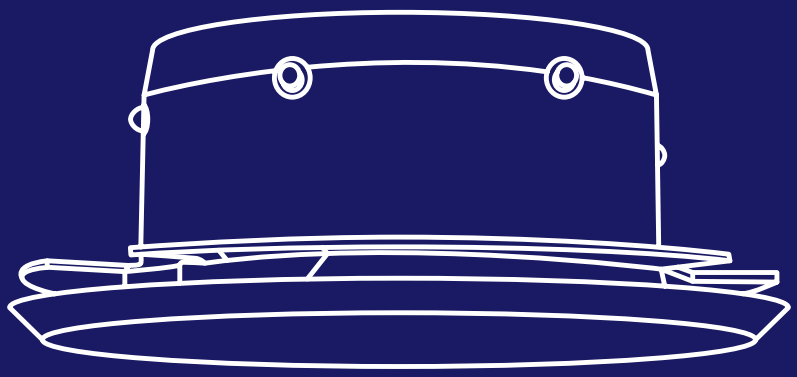

Concealed Pendent Sprinklers

Model: HA09 - HA10

Version 1.01
July 2025 release

Concealed Pendent Sprinklers
Model: HA09-HA10

Automatic Sprinkler

- Standard & Quick Response
- Standard Coverage
- K-FACTOR: 5.6

Description

The FIS MENA Series HA09, HA10, with the K-factor 5.6, is Flat-plate Concealed Pendent Sprinkler, having standard coverage. The Series HA09 described in this data sheet is standard response sprinklers with 5mm glass bulb, while the series HA10 is Quick Response sprinklers with a 3mm glass bulb.

Operation

The soldered cover plate drops off the retainer assembly when exposed to heat, e.g. a fire, that has reached the plate's Listed temperature rating. As heat encompasses the glass bulb's operating element of the sprinkler, the fluid in the bulb expands, compressing the air bubble within the bulb. When the air bubble can no longer be compressed, the fluid expansion causes the breakage of the glass bulb, resulting in the release of the water seat assembly, and the discharge of the water from the sprinkler.

Note* The FIS MENA Series Flat Plate Concealed Pendent Sprinkler must be installed and maintained in compliance with standards of NFPA.

Technical Specification	
Sprinkler Identification Number (SIN)	HA09 & HA10
Response	Standard & Quick
Temperature Rating	135°F (57°C) Cover Plate · 135°F (57°C) Sprinkler · 155°F (68°C) Sprinkler 165°F (74°C) Cover Plate · 175°F (79°C) Sprinkler · 200°F (93°C) Sprinkler
Discharge Coefficient GPM / psi ½ (LPM/bar ½)	K=5.6 (80)
Nominal Thread Size	1/2" NPT / 1/2" BSPT
Max. Working Pressure	175 PSI (12BAR)
Factory Testing Pressure	500 PSI (35BAR)
Min. Operating Pressure	7 PSI (0.5 BAR)
Cover Plate Finishes	White Coating, Chrome, Bright Brass, Brass & Customized

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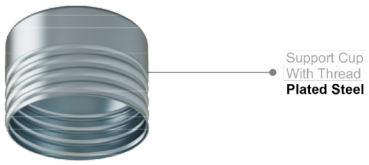
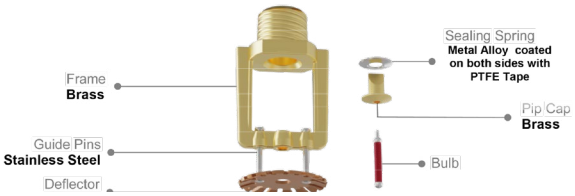
Concealed Pendent Sprinklers
Model: HA09-HA10

Sprinkler Materials



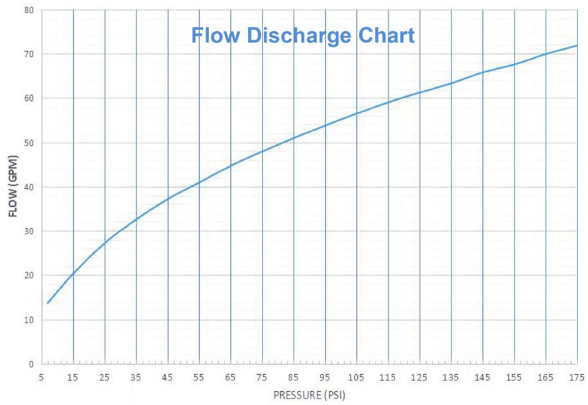


Discharge Coefficient (K-Factor)

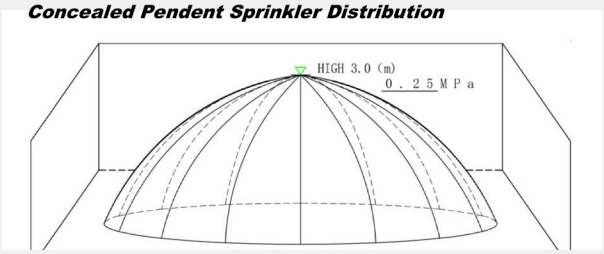
$$K_m = \frac{Q}{\sqrt{p}}$$

The coefficient of discharge, K, as expressed in the equation: Where Q is the flow in gallons per minute (gal/min), and P is the pressure in pounds per square inch (psi). Expressed in SI units: Q is the flow in liters per minute (L/min) and P is the pressure in bar. The discharge coefficient, therefore, has units of gal/min/(psi)½ or L/min/(bar)½ .

Flow Discharge Chart



Concealed Pendent Sprinkler Distribution



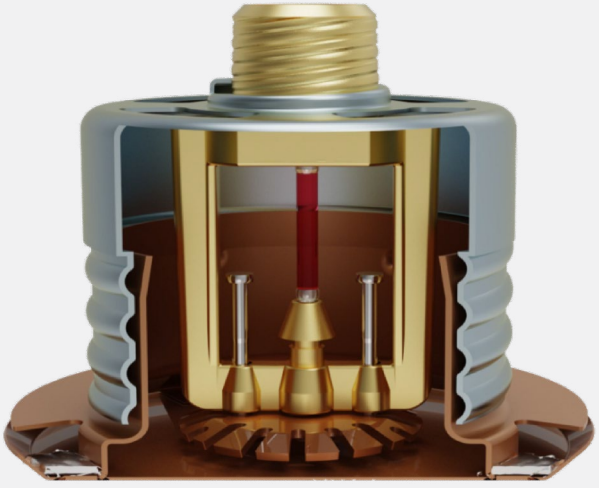
Installation

Note

The sprinklers, which are manufactured and tested in accordance with the rigid requirements of the Standard UL 199, should also be installed in accordance with the latest edition of the Standard NFPA 13. The system piping must be properly sized to ensure the minimum required flow rate at the sprinkler.

Check for the proper model, style, orifice size and temperature rating prior to installation, and install the sprinklers after the piping is in place. Pay attention to avoiding mechanical damage, and replace any damaged units. The wet pipe sprinkler systems must be protected from freezing.

Upon completion of the installation, the system must be tested per recognized standard. In case of thread leakage, remove the unit, and apply new pipe jointing compounds or use the tape, and then re-install.



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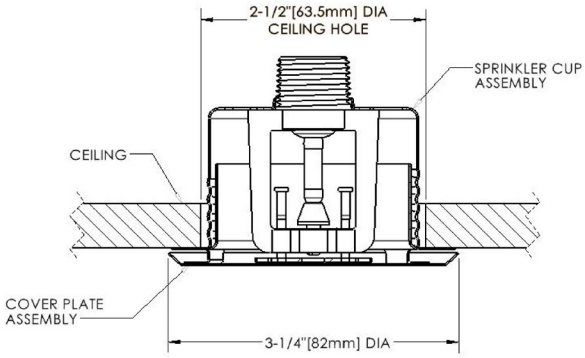
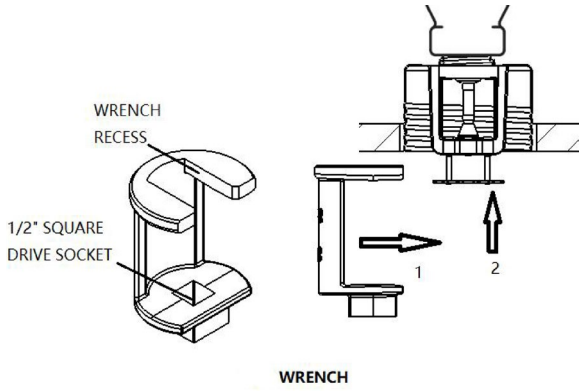
Concealed Pendent Sprinklers
Model: HA09-HA10





WRENCH

Installation

Method

Step 1:
This type of sprinklers must not be installed in the ceiling with positive pressure above them. Ensure that the 4 slots in the cup are open and unobstructed after the installation. There is an adjustable protective cap shipped with the sprinkler that should remain on the sprinkler until the sprinkler system is placed in service following the installation.

Step 2:
Twist-off the blue Protective Cap.

Step 3:
Only using the non-hardening pipe joint compound or Teflon tape apply for the male thread.

Step 4:
Tighten the sprinkler into fitting with wrench, fully insert the wrench over the sprinkler until the wrench engages the body. Do not wrench any other part of the sprinkler/cup assembly. And the wrench is designed to be turned with a standard 1/2" square drive. Tighten the sprinkler into the fitting with
proper torque.

NOTICE

Check carefully to make sure the sprinkler to be fully tighten with the cup assembly without any loose or gap before install the cover plate into the cup. Or else it may result the damage to the cover plate!!!

Step 5:
To install the cover plate, align it with support ring assembly and press it over the support ring assembly, then push upward and twist to the right.

CAUTION

1. IT IS RECOMMENDED NOT TO EXCEED 14 FT-LB TORQUE FOR THE SPRINKLERS WITH 1/2 IN. NPT THREADS.

2. PROTECTIVE CAPS MUST BE REMOVED FROM SPRINKLERS BEFORE PLACING THE SYSTEM!

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