

Description:

Sentry Sprinklers Model SY8051 is an Automatic Standard Response, Concealed Pendent Sprinkler head that utilizes a frangible thermo-sensitive glass bulb to operate the sprinkler. The sprinkler is available in various temperatures. Sprinkler Model SY8051 is listed and approved for standard coverage for Light and Ordinary hazards. Model SY8051 is a 5.6 K-factor (80 metric) Sprinkler that is intended for use in fire sprinkler systems designed in accordance with the standard installation rules recognized by the applicable listings or approved agency. The Concealed Pendent Sprinkler Assembly consists of the Sprinkler Cup Assembly and the Cover Plate Assembly. The Cover Plate Assembly is mounted to the Sprinkler Cup Assembly. Upon the release of the Cover Plate from the Cover Plate Assembly and the break of the Concealed Pendent Sprinkler Glass Bulb, the Concealed Pendent Sprinkler produces a hemispherical water distribution pattern below the deflector.



Model SY8051



Technical Data:

Minimum Operating Pressure:	7 PSI (0.5 bar)
Maximum Working Pressure:	175 PSI (12 bar)
Factory Test:	100% @ 500 PSI (34.5 bar) Hydrostatically
Nominal K-Factor:	5.6 (80 metric)
Thread Size:	1/2" NPT
Bulb Size:	5 mm

Operation:

Upon fire initiation within a protected hazard, the temperature inside the hazard rises melting the solder between the cover plate and its assembly. A spring on the Sprinkler Cover Plate Assembly ensures the ejection of the cover plate from its assembly. The rising heat within the protected hazard causes the liquid inside the Thermo-Sensitive bulb to expand. The liquid expansion causes the glass bulb to break, releasing the bulb Plug/Seat assembly. The water discharges through the sprinkler orifice striking the deflector, producing a uniform distribution pattern within the hazard area.

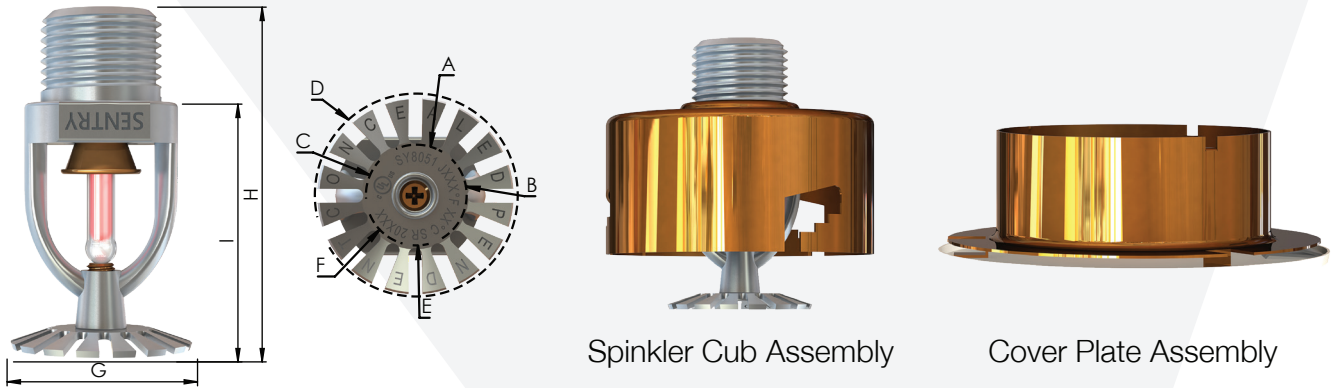
Coverage:

For coverage area and placement of the sprinkler refer to NFPA 13 standard.

Guarantee:

Sentry Sprinklers shall replace any of its products if found to be defective in materials or workmanship for a period of one year from order date. The guarantee does not cover wear and tear or improper installation.

Marking and Dimension:



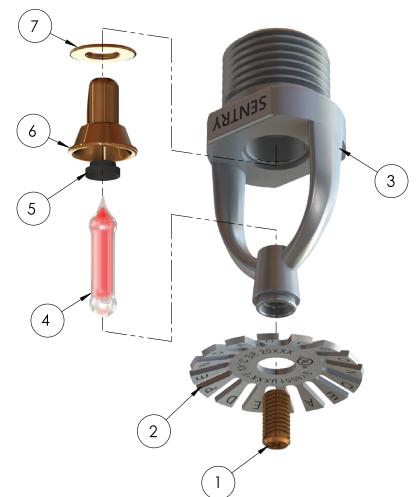
Sprinkler Cub Assembly

Cover Plate Assembly

ITEM	DESCRIPTION	IDENTIFICATION
A	Sprinkler Identification Number (SIN)	SY8051
B	Sprinkler Temperature (XXX ° F / XXX ° C)	AS MARKED
C	Approvals	AS MARKED
D	Sprinkler Type	Standard Spray Concealed Pendent
E	Sprinkler Response	Standard Response
F	Manufacturing Year	AS MARKED
G	Deflector Diameter	1 1/4" (31.40mm)
H	Sprinkler Frame Length	2 5/16" (59.00mm)
I	Sprinkler Height	1 11/16" (43.25mm)

Sprinkler Component:

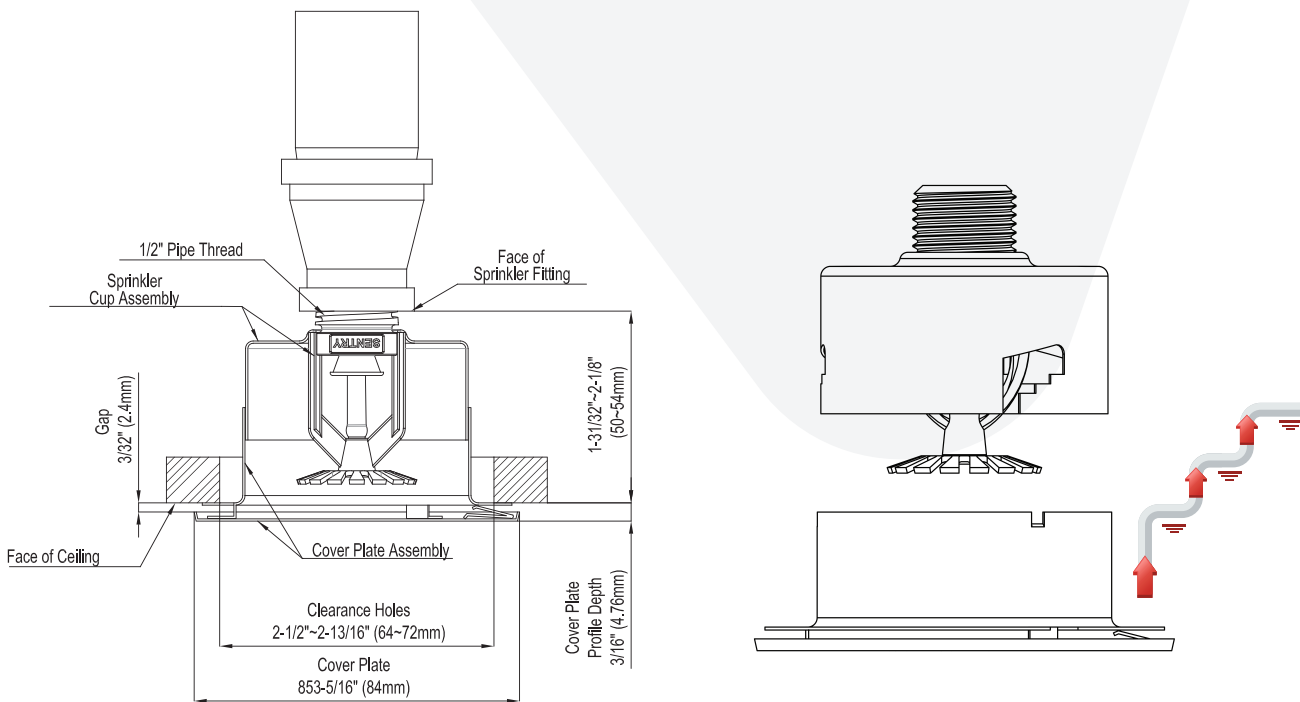
ITEM	DESCRIPTION	MATERIAL
1	Screw	Brass
2	Deflector	Brass
3	Sprinkler Frame	Brass
4	Bulb	5 MM Glass With Glycerin Solution
5	Bulb Seat	Teflon
6	Plug/Seat Assembly	Bronze
7	Plug Seal	Teflon Tape



Installation:

All sprinkler heads must be inspected prior to installation. If a sprinkler is damaged, the bulb is cracked, the bulb has loss of liquid and or lost its protective cap, do not install the sprinkler and contact Sentry Sprinklers for replacement. With the sprinkler held in the horizontal orientation, a small air bubble should be present inside the glass bulb.

Use Sentry Sprinklers recommended wrench to install the sprinkler. Never tighten the sprinkler from sprinkler arms. Any torque applied to the frame arms will dislodge the bulb seating assembly causing the sprinkler to leak. Exercise caution when installing the sprinkler. If the sprinkler is damaged during installation, do not attempt to fix it, replace it immediately.



After the ceiling has been completed with a 2 1/2" (64.00 mm) to 2 13/16" (72.00 mm) diameter clearance hole, remove and discard the Protective Cap (Orange) and verify that the sprinkler is intact. Use the Cover Plate Assembly to gently slide into the stepped slits onto the Sprinkler Cup Assembly so it firmly engages the ceiling.

The Cover Plate Assembly has a maximum 1/8" (3.00 mm) adjustability to Sprinkler Frame engagement clearance.

Do not attempt to make up for insufficient adjustment in the sprinkler assembly by over pressing the sprinkler Cover Plate Assembly onto the Sprinkler Frame.

Instead, readjust the position of the sprinkler fitting.

Absence of the Cover Plate Assembly may delay the sprinkler operation time in a fire situation.

For additional details, refer to NFPA and UL for installation guidelines.

Care and Maintenance:

The owner is responsible for maintaining their fire protection system and devices in proper operating condition. Refer to NFPA 25 for inspection, testing and maintenance requirements.

It is recommended that an automatic sprinkler system be inspected quarterly by qualified inspection personnel.

Sprinklers must never be shipped and or stored where ambient temperature exceeds 100° F / 38° C. Inspect Sprinkler before and after installation. Exercise caution during installation to avoid damage to the sprinkler. Damaged sprinkler due to dropping, striking, and or wrench slippage must be replaced. If a sprinkler must be removed for any reason, do not reinstall it or a replacement without reinstalling the Cover Plate Assembly. If a Cover Plate Assembly becomes dislodged during service, replace it immediately.

Properly installed sprinklers must have a nominal 3/32" (2.4mm) air gap between the lip of Cover Plate and the ceiling. The air gap is necessary for the proper operation of the sprinkler. If the ceiling is to be painted after installation of the Cover Plate Assembly, care must be taken to ensure that new paint does NOT seal off the nominal 3/32" (2.4mm) air gap.

Sprinklers and or cover plates must not be painted, coated or otherwise altered after leaving the factory. Sprinklers that have been exposed to corrosive products of combustion, but have not operated, must be replaced.

Concealed Pendent Sprinkler				
SIN + TEMPERATURE + FINISH CODE				
Part	SY8051135*	SY8051155*	SY8051175*	SY8051200*
K-factor	5.6 (80 Metric)	5.6 (80 Metric)	5.6 (80 Metric)	5.6 (80 Metric)
Orientation	Concealed	Concealed	Concealed	Concealed
Response	Standard	Standard	Standard	Standard
Temperature	135° F (57° C)	155° F (68° C)	175° F (79° C)	200° F (93° C)
Bulb Color	Orange	Red	Yellow	Green
Temp. Classification	Ordinary	Ordinary	Intermediate	Intermediate
Hazard Type	Light/Ordinary	Light/Ordinary	Light/Ordinary	Light/Ordinary
Approval	UL	UL	UL	UL
Threads	1/2" NPT	1/2" NPT	1/2" NPT	1/2" NPT
* Finish Code: 2 For Chrome				

Cover Plate Part Number		
Part	CP80135*	CP80155*
Temperature	135° F (57° C)	155° F (68° C)
Adjustment	1/8" (3mm)	1/8" (3mm)
* W For White (RAL # 9003)		



*Do not attempt to paint or repaint the cover plate. Only factory paint is allowed.