

Description:

Sentry Sprinklers Model SY8141 is an Automatic and or Open Standard Response Vertical Sidewall Sprinkler head that utilizes a frangible thermo-sensitive glass bulb to operate the sprinkler. The sprinkler is available in various finishes and temperatures. Sprinkler Model SY141 is listed and approved for standard coverage for Light and Ordinary hazards. Model SY8141 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 Vertical Sidewall Sprinkler produces a quarter-spherical water discharge that is predominately directed downward and outward from the deflector. The Vertical Sidewall Sprinkler must be installed in the Upright or Pendent position with the Arrow on the Deflector pointing away from a wall and perpendicular to the Wall. The UL listed recessed version of SY8141 is intended for use in the pendent position with a finished ceiling. The Sprinkler uses Model SY8010 Two-Piece Escutcheon with a recessed adjustment up to 3/4" (19 mm) from a finished ceiling.



Model SY8141



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 causing the liquid inside the Thermo-Sensitive bulb to expand. The liquid expansion causes the glass bulb to break, releasing the bulb seat assembly. The water discharges through the sprinkler orifice striking the deflector, producing a uniform distribution pattern within the hazard area.

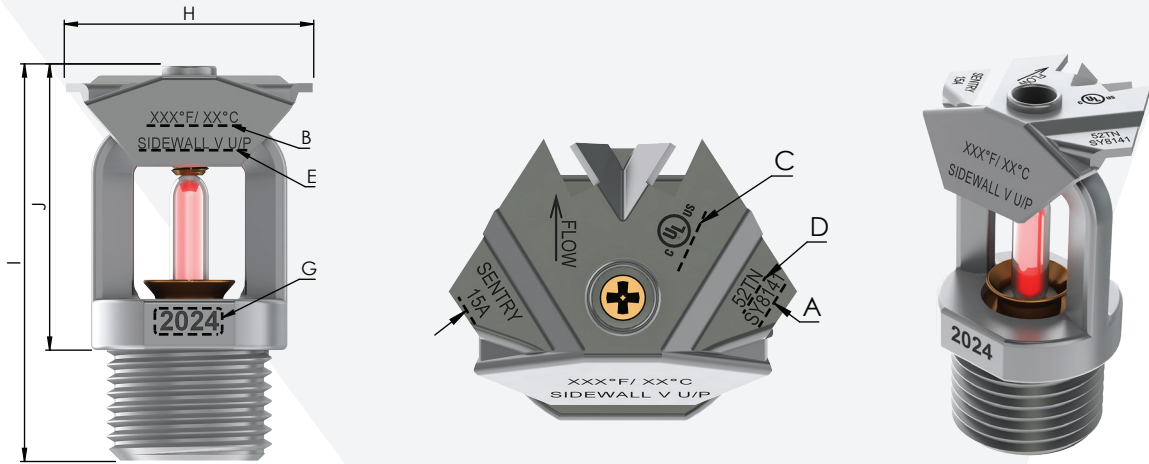
Coverage:

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.

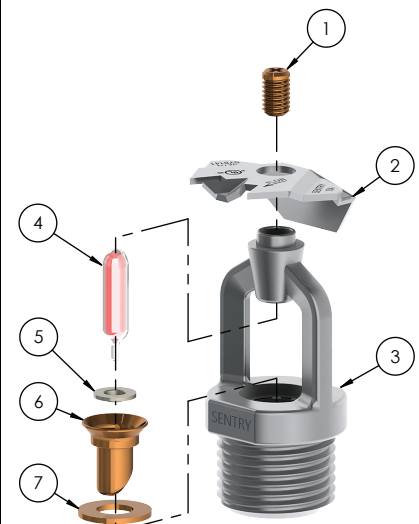
Marking and Dimension:



| ITEM | DESCRIPTION | IDENTIFICATION |
|------|---|-------------------|
| A | Sprinkler Identification Number (SIN) | SY8141 |
| B | Sprinkler Temperature (XXX ° F / XXX ° C) | AS MARKED |
| C | Approvals | AS MARKED |
| D | Manufacturing Location | 52TN |
| E | Sprinkler Type | Vertical Sidewall |
| F | Sprinkler Pipe Fitting | 1/2" |
| G | Manufacturing Year | AS MARKED |
| H | Deflector Diameter | 1 1/4" (32mm) |
| I | Sprinkler Frame Length | 1 7/8" (48.2mm) |
| J | Sprinkler Height | 1 3/8" (34.2mm) |

Sprinkler Component:

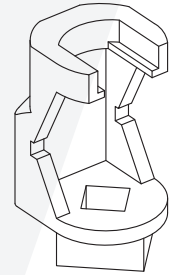
| ITEM | DESCRIPTION | MATERIAL |
|------|--------------------|-----------------------------------|
| 1 | Screw | Brass |
| 2 | Deflector | Brass |
| 3 | Sprinkler Frame | Brass |
| 4 | Bulb | 5 MM Glass With Glycerin Solution |
| 5 | Bulb Seat | Teflon |
| 6 | Plug/Seat Assembly | Bronze |
| 8 | Plug Seal | Teflon Tape |



Installation:

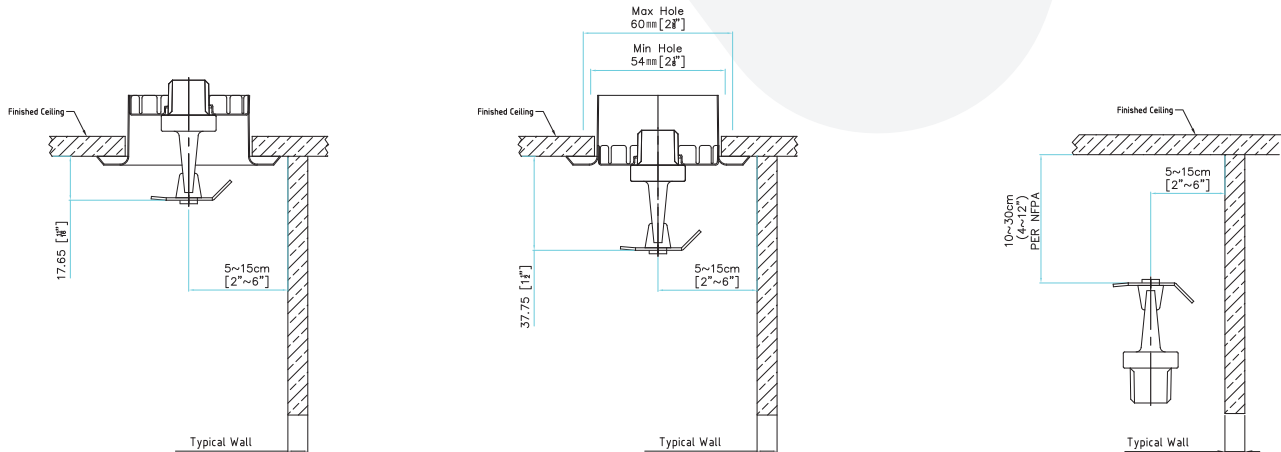
All sprinkler heads must be inspected prior to installation. If a sprinkler is damaged, the bulb is cracked, the bulb has loss of liquid and or lost its protective strap, do not install the sprinkler and contact Sentry Sprinklers for replacement. With the sprinkler held in the horizontal orientation,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

Use Sentry Sprinklers recommended wrench to install the sprinkler. Slide the sprinkler wrench around the sprinkler frame arms and press the wrench down to engage sprinkler wrench flats. Rotate the wrench clockwise to tighten the sprinkler head. The frame arms must be parallel to the pipe. 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.



Model
SY-K-HSW-UP-PEND

The Vertical Sidewall Sprinkler must be installed with the centerline of the waterway is Vertical and parallel to a back wall surface. It is recommended that a lightweight spirit level to be used to level the sprinkler fitting prior to installing the sprinkler. Using a square ensure the perpendicularity of the waterway centerline to the ceiling.



Note: For Pendent installation, locate the deflectors 11/16" to 1 1/2" (17 mm to 37 mm) below the ceiling and 2" to 6" (50 mm to 150 mm) away from a wall with the arrow on the deflector pointing away from the wall. For Vertical installation, install the sprinkler with deflector 4" to 12" (100 mm to 300 mm) below the finished ceiling and 2" to 6" (50 mm to 150 mm) away from the wall with the arrow on the deflector pointing away from the wall.

Do not remove the sprinkler strap until the sprinkler system is under commissioning for operation.

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 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, should be replaced.

Note: Absence of an escutcheon, which is used to cover a clearance hole, may delay sprinkler operation time in a fire situation.

| Vertical Sidewall Sprinkler | | | | |
|---|-----------------|-----------------|-----------------|-----------------|
| SIN + TEMPERATURE + FINISH CODE | | | | |
| Part | - | SY8141155* | SY8141175* | SY8141200* |
| K-factor | 5.6 (80 Metric) | 5.6 (80 Metric) | 5.6 (80 Metric) | 5.6 (80 Metric) |
| Orientation | Vertical | Vertical | Vertical | Vertical |
| 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: 1 FOR BRASS, 2 FOR CHROME, 3 FOR WHITE | | | | |