



PRO K5.6 AUTOMATIC SPRINKLER

PS003 / PS006

**PRO K5.6 Concealed Pendent Sprinklers,
Type A and Type B.
Standard and Quick Response.**

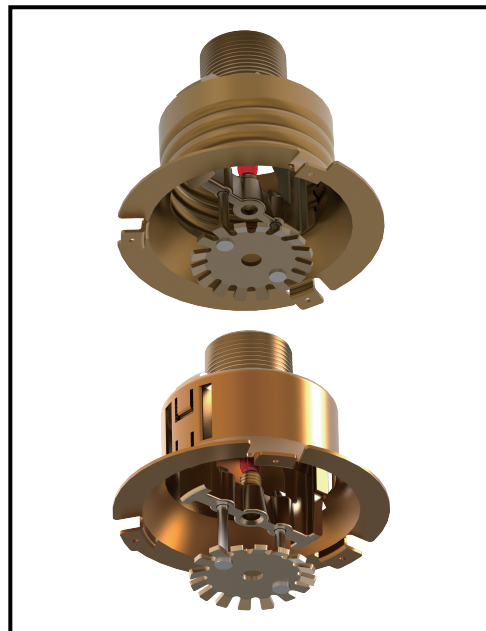


PRODUCT DESCRIPTION

The PRO K5.6 Concealed Pendent Sprinkler Series, including models PS003 and PS006, is designed in accordance with UL 199 and FM 2000 standards, and is available in both Standard Response and Quick Response types. Both models are offered in two distinct configurations: Type A (Threaded /UL only) and Type B (Click-on/UL,FM).

Unlike conventional concealed sprinklers that require a separate threaded adapter attached to the sprinkler frame before the cover plate can be installed, PRO concealed sprinklers feature an integrated design in which the adapter is built directly into the sprinkler frame. This eliminates the need for an external adapter and simplifies installation. In Type A, the cover plate threads directly onto the sprinkler body. In Type B, the cover plate simply clicks into place, allowing for a more compact installation space and significantly improving installation efficiency. Both types are designed for Concealed Pendent orientation only, and come with vertically adjustable cover plates—up to 12.5 mm for Type A and 6.6 mm for Type B. The cover plate and mounting mechanism are unified into a single, pre-assembled component, further streamlining the installation process.

All PRO sprinklers are manufactured in Taiwan using high-quality glass bulbs sourced from Germany. With a robust cast body and frame, the series is available in a range of temperature ratings for sprinklers and multiple finish options for cover plates, delivering reliable performance and design flexibility for today's fire protection systems.



MATERIAL SPECIFICATIONS

Frame	Brass
Deflector	Brass
Cap	Copper
Load Screw	Brass
Bulb	Glass
Spring Seal	SUS
Sprinkler Finishes	Natural Brass
Cover Plate Finishes	Chrome Plated / Polyester (custom colors available upon request)



TECHNICAL DATA

Orientations	Pendent PS003 (S.R.), PS006 (Q.R.)
K-Factor	5.6 Imp (80 S.I)
RTI	Standard 90 (m·s) ^{1/2} , Quick 33 (m·s) ^{1/2}
Nominal Working Thread	PT/NPT 1/2
Maximum Tightening Torque	21 ft-lbs (28.6 Nm)
Maximum Working Pressure	175 PSI (1200kPa)
Minimal Operating Pressure	7 PSI (48kPa)
Factory Hydrostatic Test	100% tested at 500 PSI (3450kPa)
Temperature Rating	See Chart



LISTINGS AND APPROVALS

Type A



Type B





INSTALLATION REQUIREMENT

All PRO Sprinklers must be installed in accordance with NFPA 13 standards. Any deviation from these requirements, including unauthorized modifications to the sprinkler, will void all warranties provided by Protector Safety Ind. Co. Additionally, installation must comply with all applicable local codes, regulations, and standards.

System piping must be properly sized to ensure the minimum required flow rate is delivered to each sprinkler. Prior to installation, confirm that the correct model, style, orifice size, and temperature rating are selected. Sprinklers should only be installed after the piping is in place to avoid mechanical damage. Any sprinkler found to be damaged must be replaced immediately. Wet pipe systems must be protected against freezing. Upon completing installation, the system must be tested in accordance with recognized standards. If leakage occurs at the threaded connection, remove the sprinkler, reapply appropriate pipe joint compound or thread seal tape, and reinstall properly.



INSTALLATION INSTRUCTIONS

- Step 1:** Install the sprinkler in the correct orientation. Concealed Pendent Sprinklers must be installed in the pendent position.
- Step 2:** Apply only a non-hardening pipe joint compound or thread seal tape to the male threads of the sprinkler. Do not apply sealant to the female threads.
- Step 3:** Hand-tighten the sprinkler into the fitting to ensure proper thread engagement.
- Step 4:** For Concealed Pendent Sprinklers, use the designated PRO Sprinkler Key to tighten the unit.
- A leak-tight joint requires only 7 to 14 ft-lbs (9.5 to 19.0 Nm) of torque.
 - A tangential force of 14 to 28 ft-lbs (62.3 to 124.5 N) applied through a 6" (150 mm) handle will generally deliver sufficient torque.
 - Do not exceed 21 ft-lbs (28.6 Nm) of torque, as excessive force may deform the spring seal, resulting in permanent damage or leakage.
 - For exposed piping systems, ensure the sprinkler frame arms are aligned parallel to the branch line pipe for proper orientation.

For Concealed Cover Plate:

- Type A (Threaded): After installing the Type A Concealed Pendent Sprinkler, align the Type A Cover Plate with the first thread of the sprinkler frame. Turn the cover plate counterclockwise until it is firmly seated and sits flush and parallel to the ceiling.
- Type B (Click-on): After installing the Type B Concealed Pendent Sprinkler, align the sprinkler frame with the two corresponding slots on the Type B Cover Plate. Apply even, steady pressure until the cover plate clicks securely into place and sits flush and parallel to the ceiling.



WARNING

All PRO Sprinklers must be installed and maintained in strict accordance with the instructions provided in this datasheet.

Before installing, removing, or adjusting any PRO sprinkler, ensure that the piping system is fully depressurized and drained. Failure to follow this precaution may impair sprinkler performance and compromise system integrity. It is the owner's responsibility to ensure that the fire protection system and all associated devices are properly maintained and remain in reliable operating condition at all times.



CAUTION

Do not over-tighten or under-tighten the sprinkler in an attempt to compensate for misaligned or improperly adjusted escutcheon plates, as this may damage the sprinkler or affect its performance. Protection clips are provided to safeguard the glass bulb and must always remain in place during transportation and installation to prevent accidental damage.



MAINTENANCE

Sprinklers must never be altered after manufacture. Any modifications—including painting, coating, or surface treatments—can compromise sprinkler integrity and lead to malfunction or failure during operation.

Sprinklers exposed to corrosive substances must be replaced if they cannot be thoroughly cleaned. Visual inspections are strongly recommended immediately after installation, and a close-up inspection should be performed at least once per year thereafter.

The inspection, testing, and maintenance of the fire protection system is the responsibility of the owner. It is strongly advised that the automatic sprinkler system be maintained in accordance with all applicable local and/or national codes and regulations.

KEY DESCRIPTION

The Sprinkler Key is a specialized tool designed exclusively for the installation of PRO Concealed Pendent Sprinklers. It is precisely engineered to provide the correct leverage during installation, ensuring a secure fit while minimizing the risk of slippage or damage to the sprinkler components. The use of non-designated or improper tools may result in damage to the sprinkler and compromise its performance or safety.



KEY

OPERATION

The operating mechanism of the sprinkler is a frangible glass bulb filled with a heat-sensitive liquid. In the event of a fire, the ambient temperature increases, causing the liquid inside the bulb to expand. When the temperature reaches the sprinkler's rated activation point, the bulb shatters, instantly clearing the waterway of internal components. Water is then discharged and directed toward the deflector, which is precisely engineered to distribute the water in a pattern optimized for effective fire control.

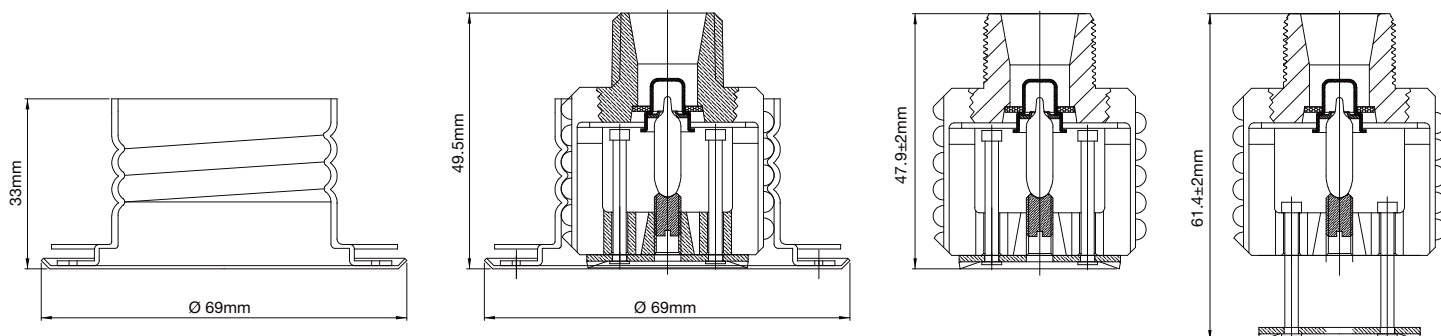
TEMPERATURE RATING TABLE

Sprinkler SIN	Temperature Rating		NFPA Allowed Maximum Ambient (Ceiling) Temperature	Glass Bulb Color
	UL	FM		
PS003	135°F/57°C	N/A	100°F/38°C	Orange
	155°F/68°C	155°F/68°C	100°F/38°C	Red
	175°F/79°C	175°F/79°C	150°F/65°C	Yellow
	200°F/93°C	200°F/93°C	150°F/65°C	Green
PS006	155°F/68°C	155°F/68°C	100°F/38°C	Red
	N/A	175°F/79°C	150°F/65°C	Yellow
	N/A	200°F/93°C	150°F/65°C	Green

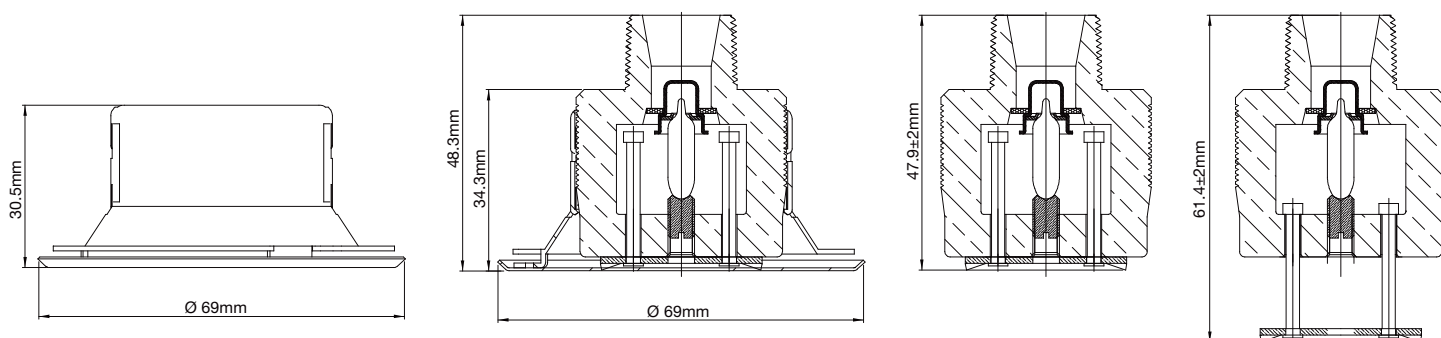


DIMENSIONS

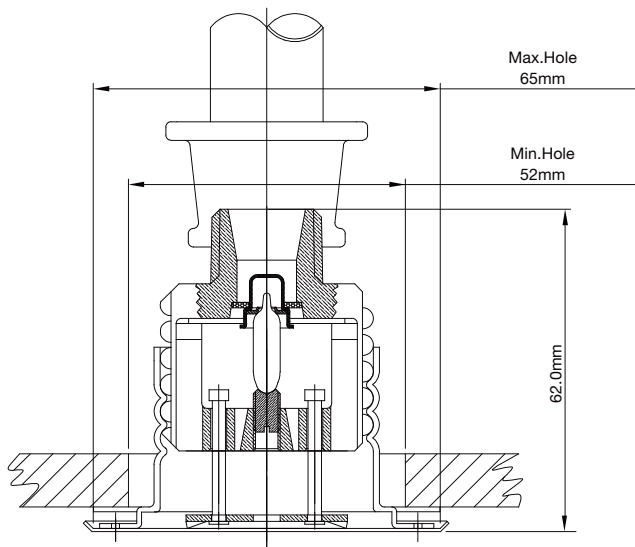
Concealed Sprinklers and Cover Plate - Type A (Threaded)



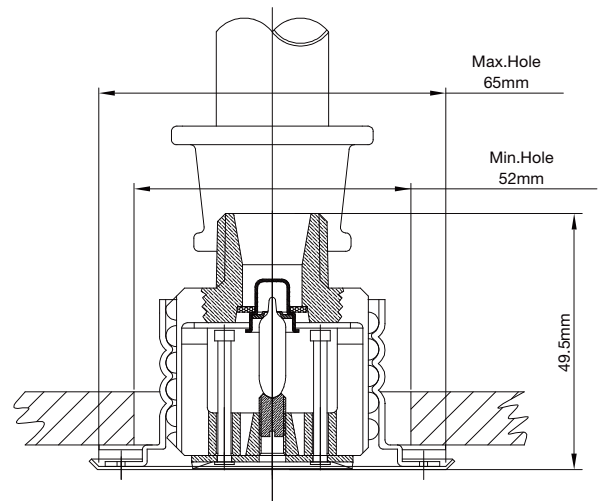
Concealed Sprinklers and Cover Plate - Type B (Click-on)



Concealed Sprinklers Installation - Type A (Threaded)

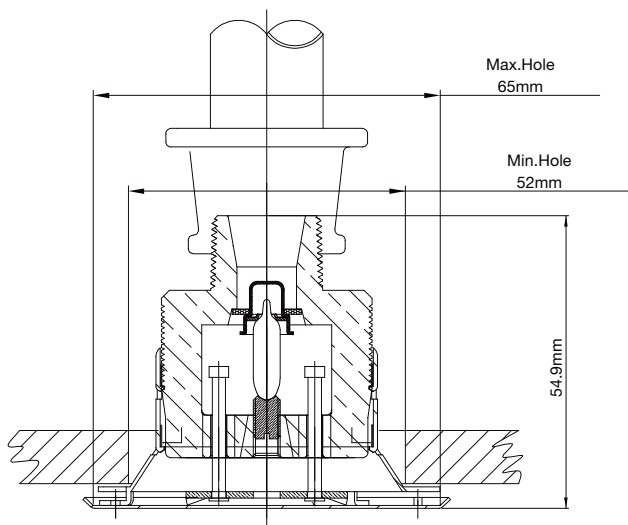


MAXIMUM EXTENSION

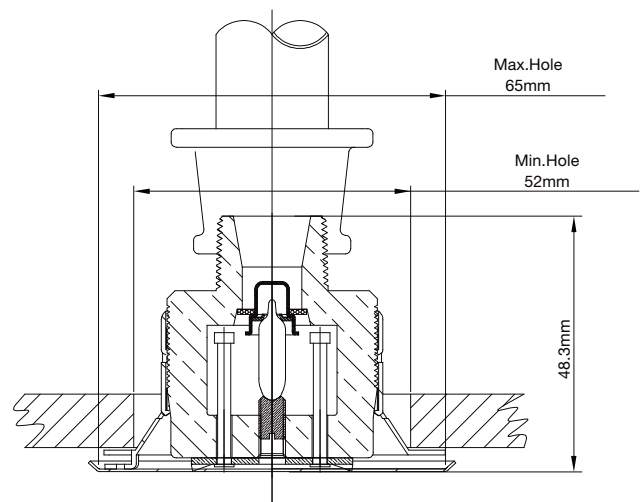


MAXIMUM RECESS

Concealed Sprinklers Installation - Type B (Click-on)



MAXIMUM EXTENSION



MAXIMUM RECESS

