

Model A-Series

PROTECTOR



Description

The Model A-Series PS001/PS002/PS004/PS005 (Glass Bulb Type) Standard Orifice standard and quick response. The A-Series Upright Sprinkler Identification Number (SIN) PS001(standard) PS005(quick) and Pendant Sprinkler Identification Number (SIN) PS002(standard) PS004(quick). The design incorporates state-of-the-art, heat responsive, frangible glass bulb design (standard or quick response) for prompt, precise operation. The die cast frame is more streamlined and attractive than traditional sand cast frames. It is cast with a hex-shaped wrench to allow easy tightening from different angles. This sprinkler is available in various temperature ratings (see Chart on Page.4) and finishes to meet many design requirements. The recessed Pendant should be utilized with a Model A recessed escutcheon which provides up 3/4" of adjustments. All Protector Sprinklers are manufactured using the time proven Belleville seal used exclusively by all major manufactures to ensure long life and safe operation.



Upright
PS001, PS005



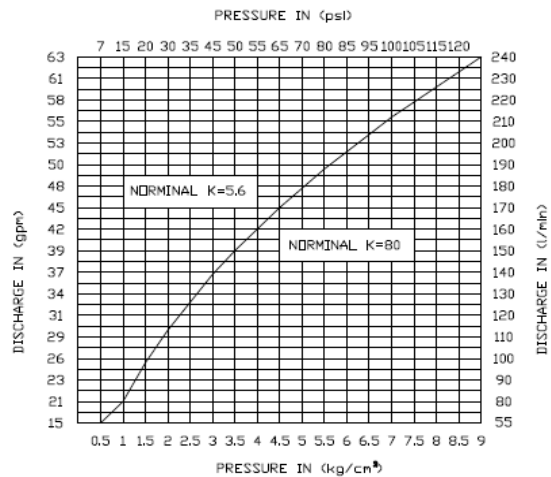
Pendant
PS002, PS004

Maximum Coverage

Standard spray coverage is up to: Light Hazard = 225 square feet(20.9 sq.m); Ordinary Hazard = 130 square feet(12.1 sq.m) per NFPA 13. See Chart on Page.4 for distribution patterns.

Operation

The operating mechanism is a frangible glass bulb which contains a heat responsive liquid. During a fire, the ambient temperature rises causing the liquid in the bulb to expand. When the ambient temperature reaches the rated temperature of the sprinkler, the bulb shatters. As a result,the waterway is cleared of all sealing parts and water is discharged towards the deflector. The deflector is designed to distribute the water in a pattern that is most effective in controlling the fire.



Warnings

The Protector Model A-Series must be installed and maintained in compliance with this document.

Depressurize and drain the piping system before attempting to install, remove, or adjust any Protector Sprinklers.

Failure to do so may impair the performance of these sprinklers.

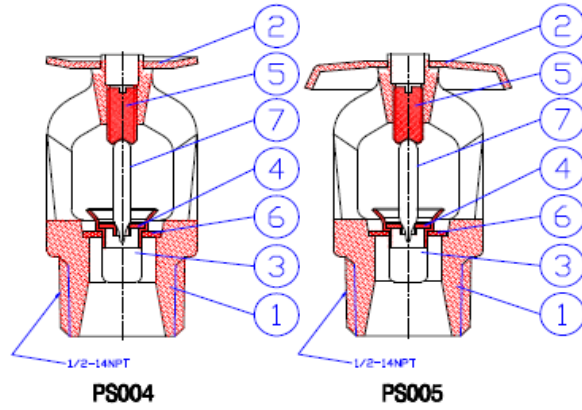
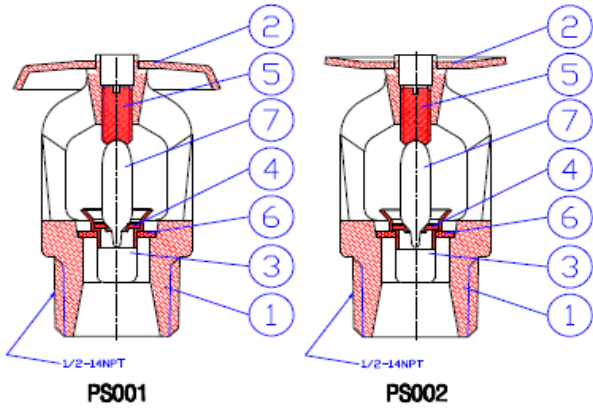
The owner is responsible for maintaining the fire protection system and devices in operation.

Technical Specification

Model SIN:	PS001, PS002 Standard Response
	PS004, PS005 Quick Response
Style:	PS001, PS005 Upright Sprinkler
	PS002, PS004 Pendant Sprinkler
K-Factor:	5.6Imp(80S.I)
RTI:	Standard 50, Quick 30
Approvals:	See Chart on Page.4
Nominal Working Thread:	1/2"NPT(15mm)
Max. Working Pressure:	175PSI(1200kPa)
Factory Hydrostatic Test:	100%@500PSI(3450kPa)
Min. Operating Pressure:	7PSI(48kPa)
Temperature Rating:	See Chart on Page.4

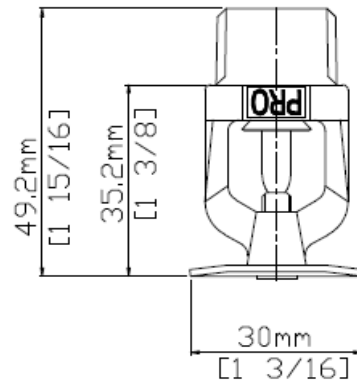
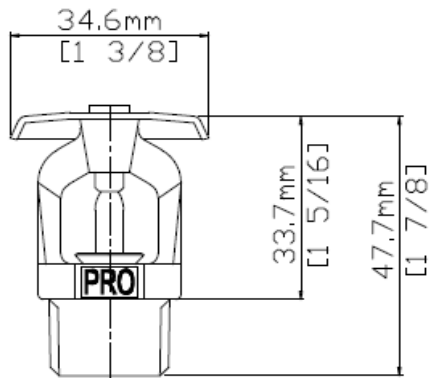
Dimensions

PROTECTOR



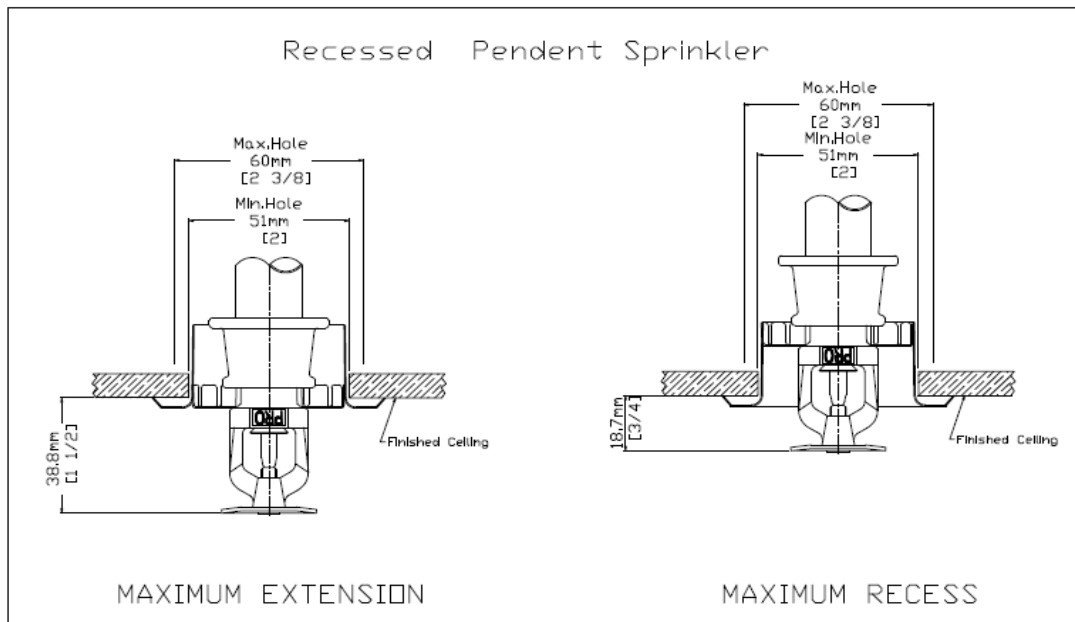
1	玻璃球	BULB	7	NORBULB N5
1	垫片	SEAL	6	REPV. NICKEL SPRING TEFLON TAPE
1	螺絲	LOAD SCREW	5	ASTM C36000
1	內帽或帽	CAP SEAT	4	ASTM S30400
1	內網罩	CAP	3	ASTM C11000
1	遮水板	DEFLECTOR	2	ASTM C22000
1	本體	FRAME	1	ASTM C37700
備註	備註	備註	備註	備註
REMARK	REMARK	REMARK	REMARK	REMARK

1	玻璃球	BULB	7	NORBULB N3
1	垫片	SEAL	6	REPV. NICKEL SPRING TEFLON TAPE
1	螺絲	LOAD SCREW	5	ASTM C36000
1	內帽或帽	OR CAP SEAT	4	ASTM S30400
1	內網罩	CAP	3	ASTM C11000
1	遮水板	DEFLECTOR	2	ASTM C22000
1	本體	FRAME	1	ASTM C37700
備註	備註	備註	備註	備註
REMARK	REMARK	REMARK	REMARK	REMARK



Upright Sprinkler

Pendent Sprinkler



1/2" ADJUSTMENT

Wrench Description

The Sprinkler Wrench is a tool specifically designed for installing PROTECTOR Sprinklers. These special wrenches must be used to provide the proper leverage when tightening the sprinkler and to minimize slippage during installation. Any other wrench may damage the sprinkler. The following wrenches are available for installing PROTECTOR Sprinklers.



**PROTECTOR SPRINKLER
WRENCH**

Installation

All PROTECTOR Sprinklers must be installed according to NFPA 13 Standards. Deviations from these requirements and standards or any alteration to the sprinkler itself will void any warranty made by PROTECTOR Sprinkler Company. In addition, installation must also meet local government provisions, codes and standards as applicable.

The system piping must be properly sized to insure the minimum required flow rate at the sprinkler. Check for the proper model, style, orifice size and temperature rating prior to installation.

Install sprinklers after the piping is in place to avoid mechanical damage, replace any damaged units.

Wet pipe systems must be protected from freezing.

Upon completion of the installation, the system must be tested per recognized standards.

In the event of a thread task, remove the unit, apply new pipe joint compound or tape, and reinstall.

Additional

Recessed Sprinkler - To install the escutcheon plate, align with it and push or thread over the sprinkler body into the upper support piece, until the outer edge of the escutcheon meets the mounting surface.

Installation Sequence

Step 1. The unit must be installed in the upright position for the Upright Sprinklers, and in the Pendant position for the Pendant Sprinkler, Pendant Recessed Sprinkler.

Step 2. Use only a non-hardening pipe joint compound or tape seal. Apply only to the male threads.

Step 3. Hand tighten the sprinkler into fitting.

Step 4. For Upright and Pendant Sprinklers, use a standard wrench. Tighten the unit into the fitting. A lead-tight joint requires only 7 to 14ft.-lbs(**9.5 to 19.0Nm**) of torque. A tangential force of 14 to 28ft.-lbs(**62.3 to 124.5N**) delivered through a 6"(**150mm**) handle will deliver adequate torque. Once torque level reach over 21ft.-lbs(**28.6Nm**) it may distort the orifice seal, resulting in leakage. For exposed piping systems, the sprinkler should be oriented so the frame arms are parallel with the branch line pipe.

Caution

Do not over-tighten or under-tighten the sprinkler to compensate for inaccurate escutcheon plate adjustment.

Protection clips are used to protect its bulb. Please have clip on at all times during transportation.

Maintenance

Sprinklers must never be altered after manufacture. Any alteration such as painting and coating will directly harm the sprinkler and cause malfunctions.

Sprinkler in contact with corrosive products should be replaced if they cannot be cleaned completely.

Visual inspections are recommended after installation. After installation, a close-up inspection annually will suffice.

Inspection and maintenance of fire protection system is the responsibility of the owner. It is recommended that automatic sprinkler system be inspected and tested according to local and/or national regulations.

Approvals and Listings

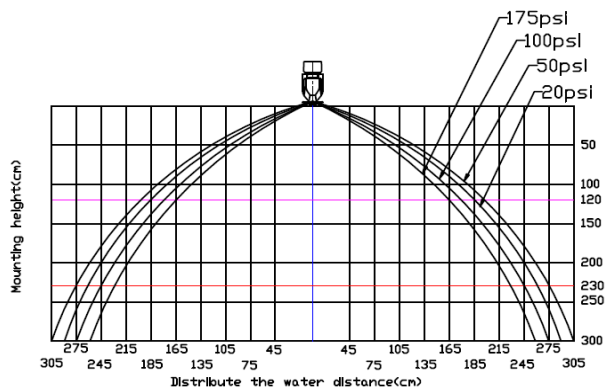
Nominal Size Inches/mm		K-Factor Imperial S.I.	Response	Sprinkler Type	Approvals		
Thread	Orifice				UL	C-UL	CNS
1/2/15	1/2/13	5.6/80	Standard	Upright	Yes	Yes	Yes
1/2/15	1/2/13	5.6/80	Standard	Pendant	Yes	Yes	Yes
1/2/15	1/2/13	5.6/80	Standard	Recessed	Yes	Yes	Yes
1/2/15	1/2/13	5.6/80	Quick	Upright	Yes	Yes	Yes
1/2/15	1/2/13	5.6/80	Quick	Pendant	Yes	Yes	Yes
1/2/15	1/2/13	5.6/80	Quick	Recessed	Yes	Yes	Yes

Temperature Ratings

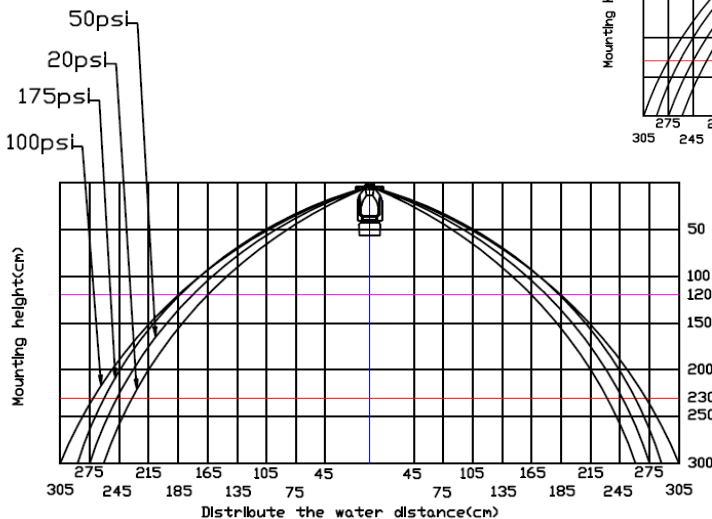
Sprinkler Temperature Classification	Nominal Sprinkler Temperature Rating	N.F.P.A. Maximum Ambient (Ceiling) Temp. Allowed	Glass Bulb Color
Ordinary	135°F/57°C	100°F/38°C	Orange
	155°F/68°C	100°F/38°C	Red
Intermediate	175°F/79°C	150°F/65°C	Yellow
	200°F/93°C	150°F/65°C	Green
High	286°F/141°C	225°F/107°C	Blue
Extra High	360°F/182°C	300°F/149°C	Mauve
Open	Open	-	No Bulb

Distribution Patterns - Trajectory

K5.6 Pendant Sprinkler



K5.6 Upright Sprinkler



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