

SPRINKLER HEAD

Quick Response Upright & Pendent Sprinklers

MODEL: SD1020, SD1021

DESCRIPTION

The SHIELD Sprinkler, SD1020, SD1021 (Glass Bulb Type) 3/8" Standard Orifice, Upright, Pendent and Recessed Pendent, Quick Response, design incorporates state-of-the-art, heat responsive, frangible glass bulb design 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 boss to allow easy tightening from many angles, reducing assembly effort. This sprinkler is available in various temperature ratings and finishes to meet many design requirements. The recessed pendent should be utilized with a recessed escutcheon which provides up 3/4" of adjustments. All sprinklers are manufactured using the time proven Belleville seal used exclusively by all major manufactures to ensure long life and safe operation.

SPRINKLER 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.



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.

TECHNICAL SPECIFICATION

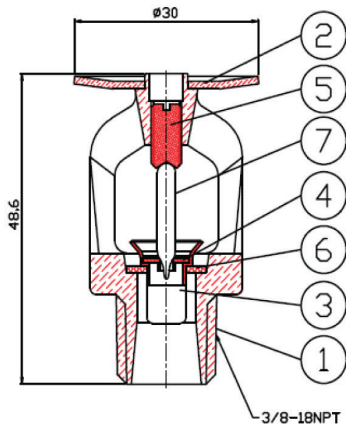
Sprinkler Identification Number	Quick Response SD1020, SD1021 (bulb 3mm)
Style	Pendent Sprinkler SD1020, Upright Sprinkler SD1021
K Factor	4.2gpm/psi ^{1/2} . (60lpm/bar ^{1/2})
Response Time Index (RTI)	Quick Response 30
Nominal Thread Size	3/8" NPT or 3/8" PT
Max. Working Pressure	175PSI(1200kPa)
Factory Hydrostatic Test	100%@500PSI(3450 kPa)
Min. Operation Pressure	7 PSI(48 kPa)

RATINGS

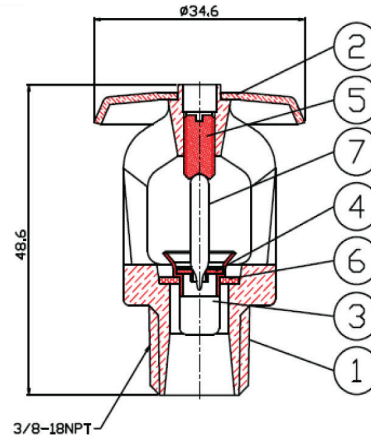
Sprinkler Temperature Classification	Norminal Sprinkler Temperature Rating	N.F.P.A Maximum Ambient (Ceiling) Temp.(Allowed)	Glass Bulb Color
Ordinary	135°F/57°C	100°F/38°C	Orange
Ordinary	155°F/68°C	100°F/38°C	Red
Intermediate	175°F/79°C	150°F/65°C	Yellow
Intermediate	200°F/93°C	150°F/65°C	Green

PART LIST

FRAME AND DEFLECTOR FINISH
 Pendent - Brass, Chrome, White
 Upright - Brass only



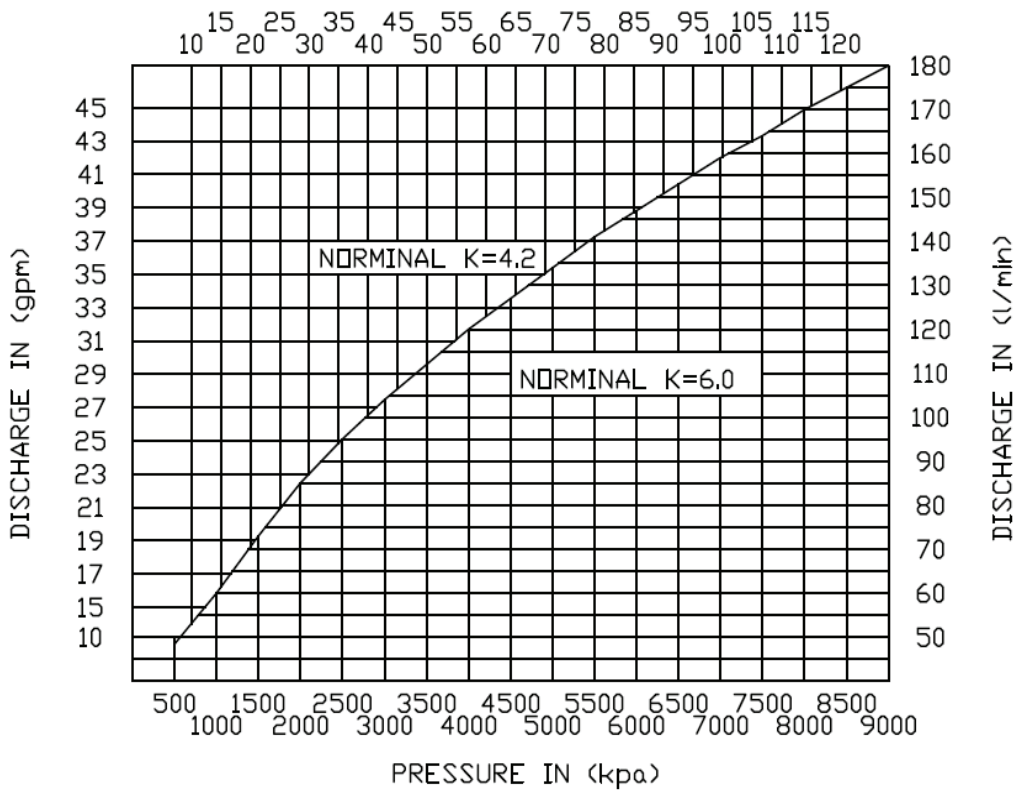
SD1020



SD1021

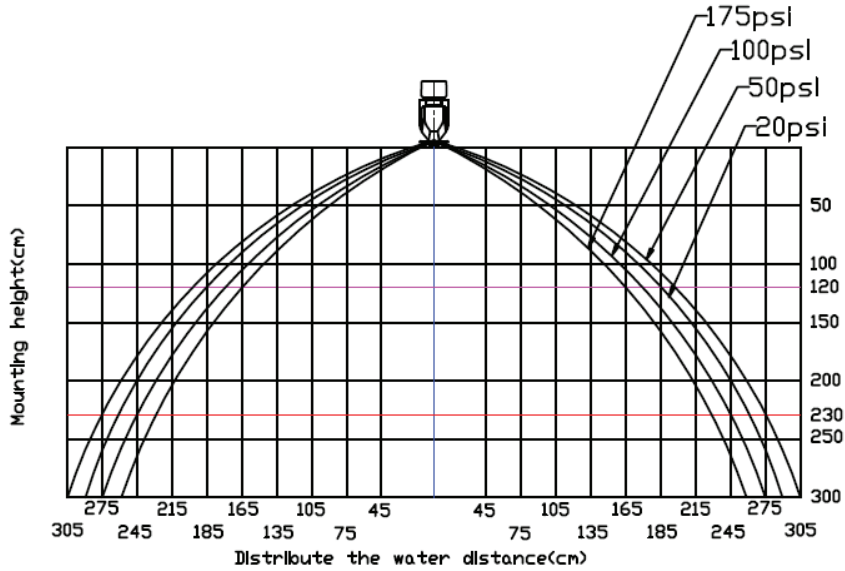
1. Frame 2. Deflector 3. Cap 4. Cap Seat 5. Load Screw 6. Seal 7. Bulb

DISCHARGE CURVE

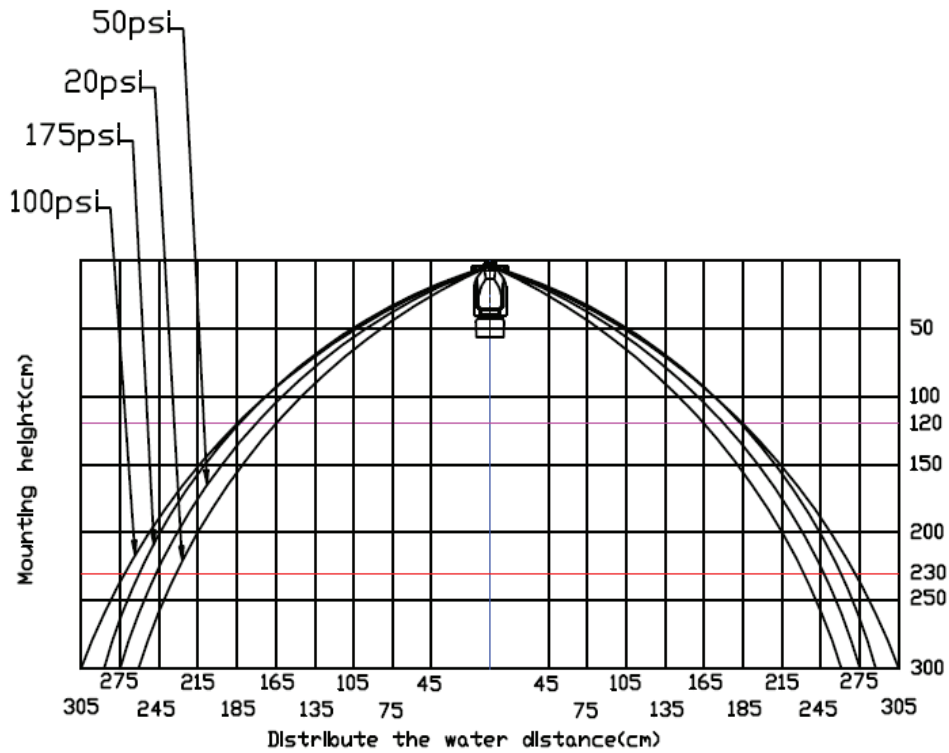


DISTRIBUTION PATTERNS

K4.2 PENDENT SPRINKLER
DISTRIBUTION PATTERNS - TRAJECTORY

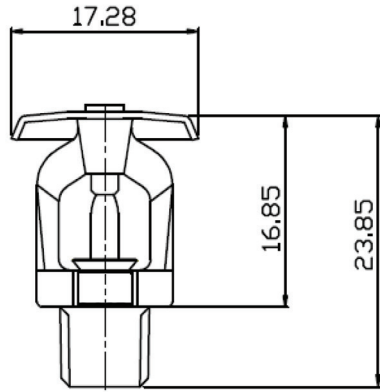


K4.2 UPRIGHT SPRINKLER
DISTRIBUTION PATTERNS - TRAJECTORY

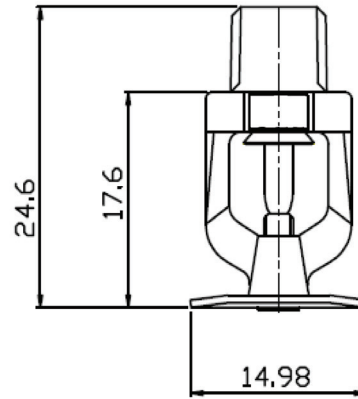


DIMENSIONS

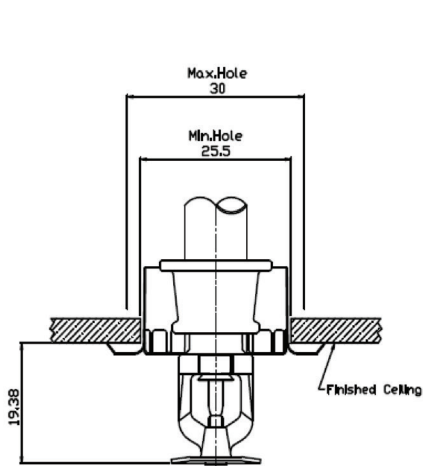
UPRIGHT SPRINKLER



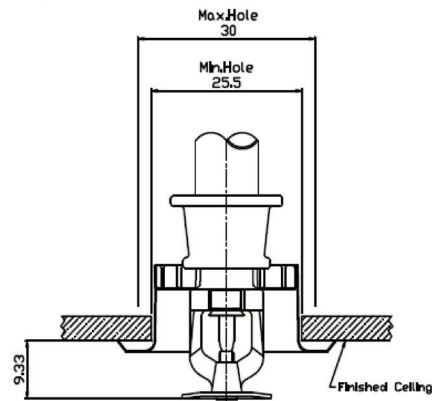
PENDENT SPRINKLER



RECESSED PENDENT SPRINKLER



Maximum Extension



Maximum Recess