

FireLock® V27, K5.6

Models V2703, V2707, V2704, V2708

Standard Spray Upright, Pendent and Recessed Pendent Standard and Quick Response



V2703/V2704
Upright



V2707/V2708
Pendent



V2707/V2708
Recessed Pendent

Approvals/Listings:



See Victaulic Publication [10.01](#) for more details.

Product Description:

These Model V27 standard spray sprinklers are designed to produce a hemispherical spray pattern for standard commercial applications. They are available with either standard or quick response bulbs. 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 (see chart on page 3) and finishes to meet many design requirements. The recessed pendent should be utilized with a Model V27 recessed escutcheon which provides up to $3/4$ "/19 mm of adjustments.

Coverage

For coverage area and sprinkler placement, refer to NFPA 13 or applicable standard.

Technical Specifications:

Models: V2703, V2704, V2707, V2708

Style: Pendent, Upright or Recessed Pendent

Nominal Orifice Size: $1/2$ "/13 mm

K Factor: 5.6 Imp./8.1 S.I.¹

Nominal Thread Size: $1/2$ " NPT/15 mm

Max. Working Pressure:

- 175 psi/1200 kPa (FM)
- 250 psi/1725 kPa (UL)

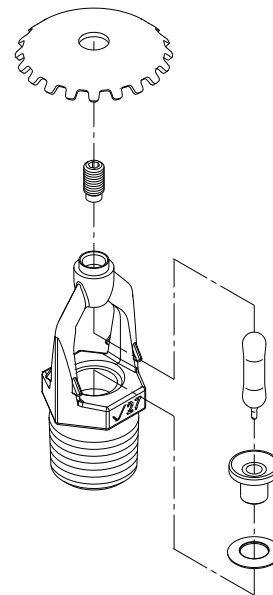
Factory Hydrostatic Test: 100% @ 500 psi/3450 kPa

Min. Operating Pressure:

- 7 psi/48 kPa
- 0.35 bar/5 psi (VdS for upright only)

Temperature Rating: See chart

¹ For K-Factor when pressure is measured in Bar, multiply S.I. units by 10.0.



Exaggerated for clarity

Job/Owner

| | |
|------------|--|
| System No. | |
| Location | |

Contractor

| | |
|--------------|--|
| Submitted By | |
| Date | |

Engineer

| | |
|--------------|--|
| Spec Section | |
| Paragraph | |
| Approved | |
| Date | |

Material Specifications:

- Upright Deflector:** Bronze per UNS C11000
- Pendent Deflector:** Bronze per UNS C51000
- Bulb:** Glass with glycerin solution
- Bulb Nominal Diameter:**
 - Standard: 5.0 mm
 - Quick Response: 3.0 mm
- Load Screw:** Bronze per UNS C65100
- Pip Cap:** Bronze per UNS C65100
- Spring:** Beryllium nickel
- Seal:** Teflon² tape
- Frame:** Die cast brass 65-30
- Lodgement Spring:** Stainless steel per UNS S30200

Accessories

Installation Wrench:

- Open End: V27
- Recessed: V27-2

Sprinkler Finishes:

- Plain Brass
- Chrome plated
- White painted³
- Black painted³
- Custom painted³
- Proprietary Nickel Teflon² coating³
- VC-250⁴

155, 200, 286 SR Only:

- Wax³

For cabinets and other accessories refer to separate sheet.

² Teflon is a registered trademark of Dupont Co.

³ UL Listed for corrosion resistance.

⁴ UL Listed and FM Approved for corrosion resistance.

Approvals/Listings:

| APPROVALS/LISTINGS | Model | | | | | |
|-------------------------------------|--|--|---|---|---|--|
| | V2703 | V2707 | V2707 | V2704 | V2708 | V2708 ⁷ |
| Orifice Size (inches) | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" |
| Orifice Size (mm) | 13 | 13 | 13 | 13 | 13 | 13 |
| Nominal K Factor Imperial | 5.6 | 5.6 | 5.6 | 5.6 | 5.6 | 5.6 |
| Nominal K Factor S.I. ⁵ | 8.1 | 8.1 | 8.1 | 8.1 | 8.1 | 8.1 |
| Response | Standard | Standard | Standard | Quick | Quick | Quick |
| Deflector Type | Upright | Pendent | Recessed Pendent | Upright | Pendent | Recessed Pendent |
| Approved Temperature Ratings | F°/C° | | | | | |
| cULus | 135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C 360°F/182°C | 135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C 360°F/182°C | 135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C | 135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C | 135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C | 135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C |
| FM | 135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C 360°F/182°C | 135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C 360°F/182°C | 135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C | 135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C | 135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C | 135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C |
| NYC/MEA 62-99-E | 135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C 360°F/182°C | 135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C 360°F/182°C | 135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C | 135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C | 135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C | 135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C |
| CSFM 7690-0531:112 | 135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C 360°F/182°C | 135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C 360°F/182°C | 135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C | 135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C | 135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C | 135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C |
| LPCB | 135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C 360°F/182°C | None | None | 135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C | None | None |
| VNIPO | 135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C 360°F/182°C | 135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C 360°F/182°C | 135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C | 135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C | 135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C | 135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C |
| CCC | ZSTZ 155°F/68°C 200°F/93°C | ZSTX 155°F/68°C 200°F/93°C | None | K-ZSTZ 155°F/68°C 200°F/93°C | K-ZSTZ 155°F/68°C 200°F/93°C | None |
| VdS | 135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C 360°F/182°C | None | None | 135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C | None | None |
| CE | 135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C 360°F/182°C | None | None | 135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C | None | None |

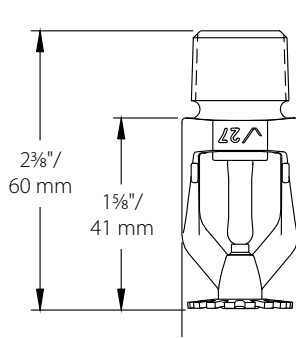
⁵ For K Factor when pressure is measured in Bar, multiply S.I. units by 10.0

⁷ FM Approved with 1/2" adjustment escutcheon only - quick response

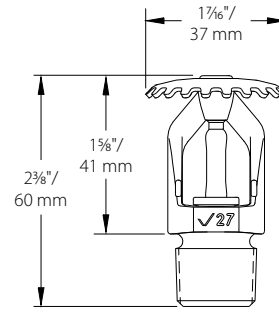
Note: Listings and Approvals as of printing. All are approved open.



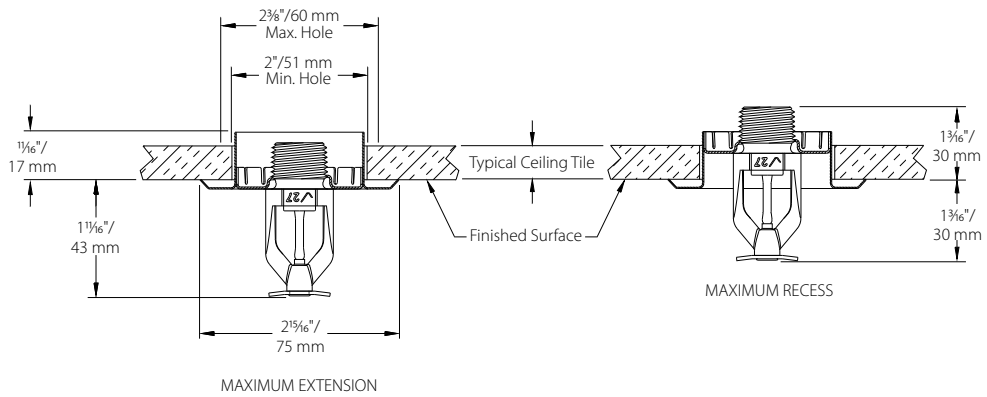
Dimensions:



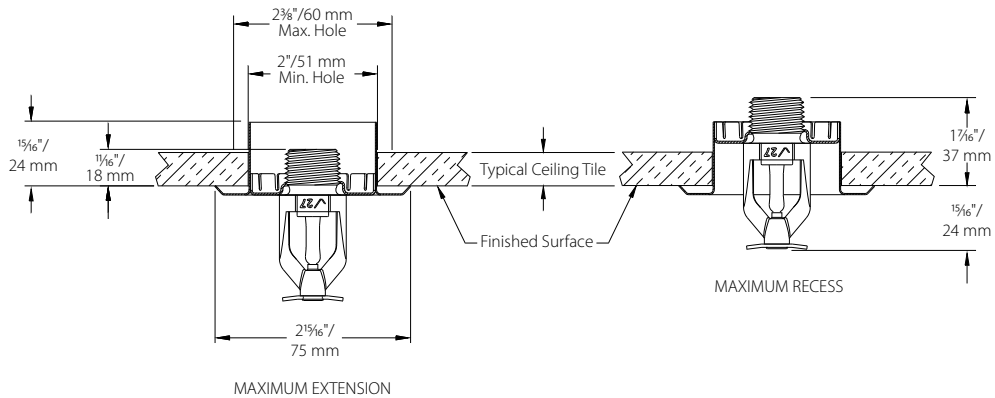
Standard Pendent –
V2707, V2708



Standard Upright –
V2703, V2704



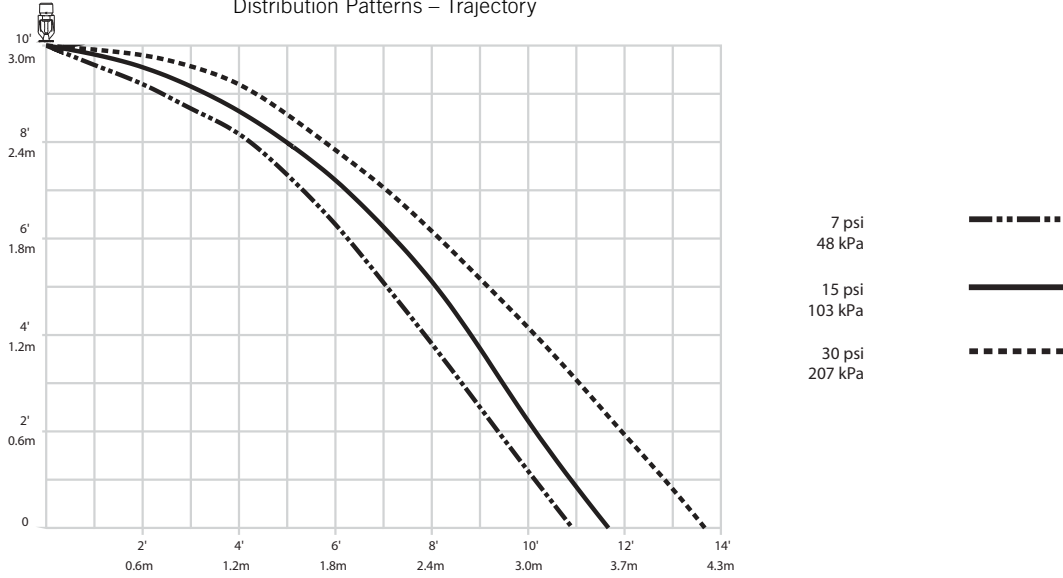
1/2" Adjustment Recessed – V2707, V2708 (drawing not to scale)



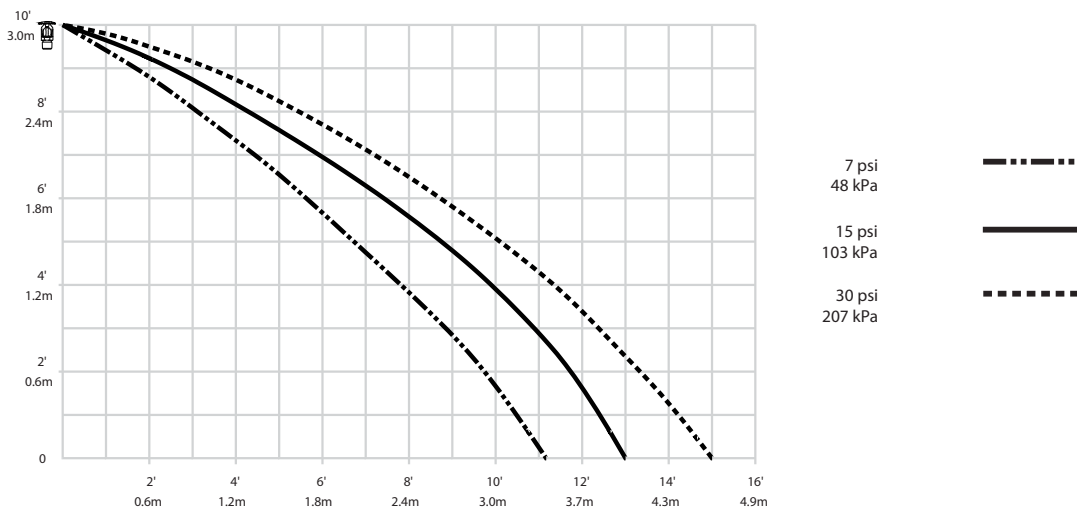
3/4" Adjustment Recessed – V2707, V2708 (drawing not to scale)

Distribution Patterns:

Models V2707, V2708
K5.6 Standard Pendent and Recessed Pendent
Distribution Patterns – Trajectory



Models V2703, V2704
K5.6 Standard Upright
Distribution Patterns – Trajectory



NOTES:

- A. Data shown is approximate and can vary due to differences in installation.
- B. These graphs illustrate approximate trajectories, floor-wetting, and wall-wetting patterns for these specific Victaulic FireLock Automatic Sprinklers. They are provided as information for guidance in avoiding obstructions to sprinklers and should not be used as minimum sprinkler spacing rules for installation. **Refer to the appropriate NFPA National Fire Code or the Authority Having Jurisdiction for specific information regarding obstructions, spacing limitations and area of coverage requirements.** Failure to follow these guidelines could adversely affect the performance of the sprinkler and will void all Listings, Approvals and Warranties.
- C. All patterns are symmetrical to the centerline of the waterway.



Ratings:

All glass bulbs are rated for temperatures from -67°F (-55°C) to those shown in the table below.

| Sprinkler Temperature Classification | Victaulic Part Identification | Temperature – °F/°C | | Glass Bulb Color |
|--------------------------------------|-------------------------------|----------------------------|-------------------------------------|------------------|
| | | Nominal Temperature Rating | Maximum Ambient Temperature Allowed | |
| Ordinary | A | 135°F/57°C | 100°F/38°C | Orange |
| Ordinary | C | 155°F/68°C | 100°F/38°C | Red |
| Intermediate | E | 175°F/79°C | 150°F/65°C | Yellow |
| Intermediate | F | 200°F/93°C | 150°F/65°C | Green |
| High | J | 286°F/141°C | 225°F ⁸ /107°C | Blue |
| Extra High ⁷ | K | 360°F/182°C | 300°F/149°C | Purple |
| – | M | Open | – | No Bulb |




⁷ Standard response only.

⁸ 150/65 if wax coated.

Available Wrenches:

| | V27-2 Recessed | V27 Open End |
|-------------------------------|----------------|--------------|
| V2707, V2708 Pendent | ✓ | ✓ |
| V2707, V2708 Recessed Pendent | ✓ | – |
| V2703, V2704 Upright | – | ✓ |

⚠ WARNING

- Always read and understand installation, care, and maintenance instructions, supplied with each box of sprinklers, before proceeding with installation of any sprinklers.
- Always wear safety glasses and foot protection.
- Depressurize and drain the piping system before attempting to install, remove, or adjust any Victaulic piping products.
- Installation rules, especially those governing obstruction, must be strictly followed.
- Painting, plating, or any re-coating of sprinklers (other than that supplied by Victaulic) is not allowed.

Failure to follow these instructions could result in serious personal injury and/or property damage.

The owner is responsible for maintaining the fire protection system and devices in proper operating condition. For minimum maintenance and inspection requirements, refer to the current National Fire Protection Association pamphlet that describes care and maintenance of sprinkler systems. In addition, the authority having jurisdiction may have additional maintenance, testing, and inspection requirements that must be followed.

If you need additional copies of this publication, or if you have any questions about the safe installation of this product, contact Victaulic World Headquarters: P.O. Box 31, Easton, Pennsylvania 18044-0031 USA, Telephone: 001-610-559-3300.

Installation

Reference should always be made to the I-40 Victaulic FireLock Automatic Sprinklers Installation and Maintenance Sheet for the product you are installing. This installation sheet is included with each shipment of Victaulic products for complete installation and assembly data, and is available in PDF format on our website at victaulic.com.

Warranty

Refer to the Warranty section of the current Price List or contact Victaulic for details.

Note

This product shall be manufactured by Victaulic or to Victaulic specifications. All products to be installed in accordance with current Victaulic installation/assembly instructions. Victaulic reserves the right to change product specifications, designs and standard equipment without notice and without incurring obligations.

Trademarks

Victaulic is a registered trademark of Victaulic Company.