

# FireLock® V34, K8.0

## Models V3401, V3402, V3405, V3406

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



V3405/V3406  
Recessed Pendent



V3405/V3406  
Pendent



V3401/V3402  
Upright

### Approvals/Listings:



See Victaulic Publication 10.01 for more details.

### Product Description:

These Model V34 standard spray sprinklers are designed to provide a large discharge capacity in a hemispherical pattern for use in commercial applications. 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 may be utilized with a Model V34 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.

Note: Upright models V3401 and V3402 not VNIPO approved

### Technical Specifications:

**Models:** V3401 V3402, V3405, V3406

**Style:** Pendent, Upright or Recessed Pendent

**Nominal Orifice Size:** 17/32"/14 mm

**K Factor:** 8.0 Imp./11.5 S.I.<sup>1</sup>

**Nominal Thread Size:** 3/4" NPT/20 mm

**Max. Working Pressure:**

- 175 psi/1200 kPa

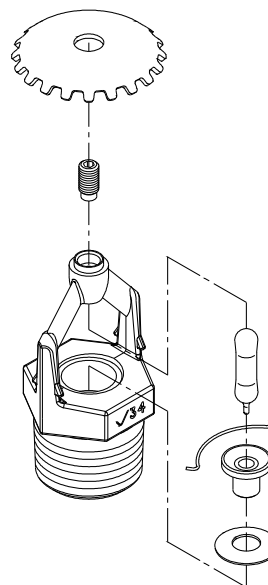
**Factory Hydrostatic Test:** 100% @ 500 psi/3450 kPa

**Min. Operating Pressure:**

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

**Temperature Rating:** See chart

<sup>1</sup> 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:** Teflon<sup>2</sup> tape

**Frame:** Die cast brass 65-30

**Lodgement Spring:** Stainless steel per UNS S30200

**Accessories**

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**Installation Wrench:**

Open End: V34

Recessed: V34

**Sprinkler Finishes:**

Plain Brass

Chrome plated

White painted<sup>3</sup>

Flat black painted<sup>3</sup>

Custom painted<sup>3</sup>

Proprietary Nickel Teflon<sup>2</sup> coating<sup>3</sup>

VC-250<sup>4</sup>

**155, 200, 286SR Only:**

Wax<sup>3</sup>

For cabinets and other accessories refer to separate sheet.

NOTE: Weather resistant recessed escutcheons available upon request.

<sup>2</sup> Teflon is a registered trademark of Dupont Co.

<sup>3</sup> UL Listed for corrosion resistance.

<sup>4</sup> UL Listed and FM Approved for corrosion resistance

Approvals/Listings:

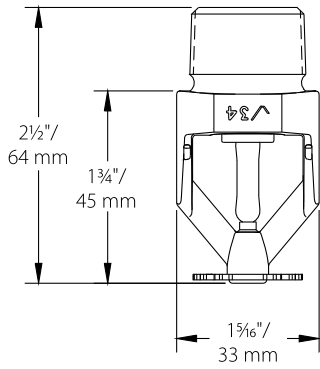
APPROVALS/LISTINGS	Model							
	V3401	V3405	V3405	V3402	V3406	V3406	V3406	
Orifice Size (inches)	17/32"	17/32"	17/32"	17/32"	17/32"	17/32"	17/32"	
Orifice Size (mm)	14	14	14	14	14	14	14	
Nominal K Factor Imperial	8.0	8.0	8.0	8.0	8.0	8.0	8.0	
Nominal K Factor S.I. <sup>5</sup>	11.5	11.5	11.5	11.5	11.5	11.5	11.5	
Response	Standard	Standard	Standard	Quick	Quick	Quick	Quick	
Deflector Type	Upright	Pendent	Recessed Pendent	Upright	Pendent	Recessed Pendent	Recessed Pendent	
Adjustment			up to 3/4"			up to 1/2"	up to 3/4"	
<b>Approved Temperature Ratings</b>	<b>F°/C°</b>							
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	35°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 286°F/141°C	135°F/57°C 175°F/79°C 200°F/93°C	135°F/57°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 175°F/79°C 200°F/93°C	None	
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 175°F/79°C 200°F/93°C	135°F/57°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 175°F/79°C 200°F/93°C	135°F/57°C 175°F/79°C 200°F/93°C	
VNIIP0 <sup>7</sup>	None	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	None	135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C	135°F/57°C 175°F/79°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	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	None	
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 286°F/141°C	None	None	None	

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

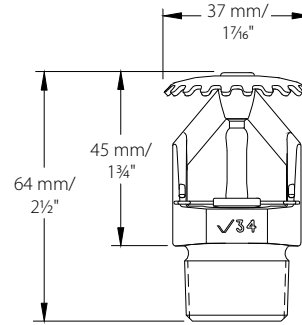
<sup>6</sup> The density at S = 12m<sup>2</sup>, H = 2.5 m, shall be a minimum of: 0, 014 dm<sup>3</sup> / m.s at P = 0,1 MPa; 0,02 dm<sup>3</sup> / m.s at P = 0,3 MPa

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

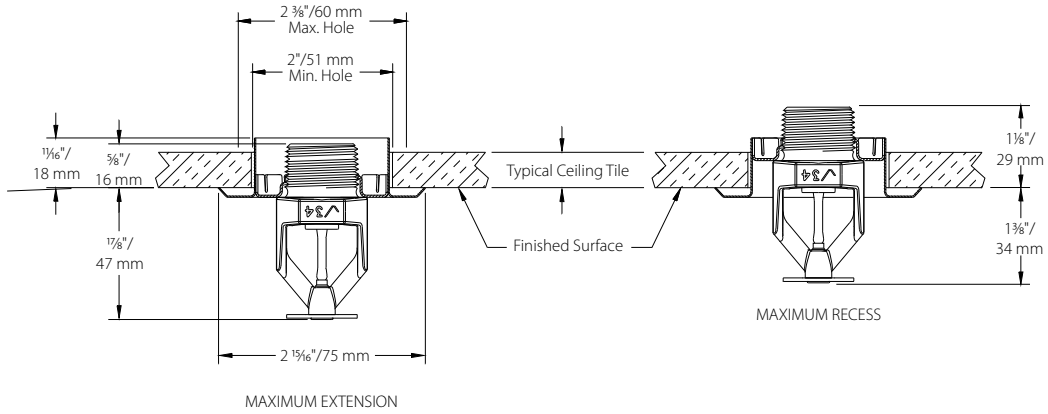
**Dimensions:**



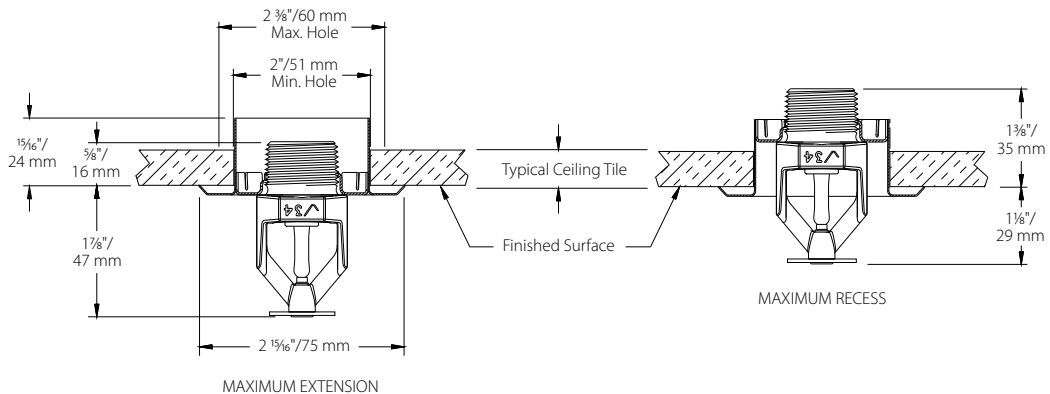
Standard Pendent –  
V3405, V3406



Standard Upright –  
V3401, V3402



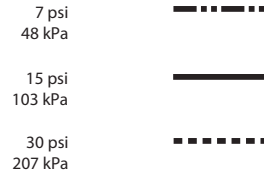
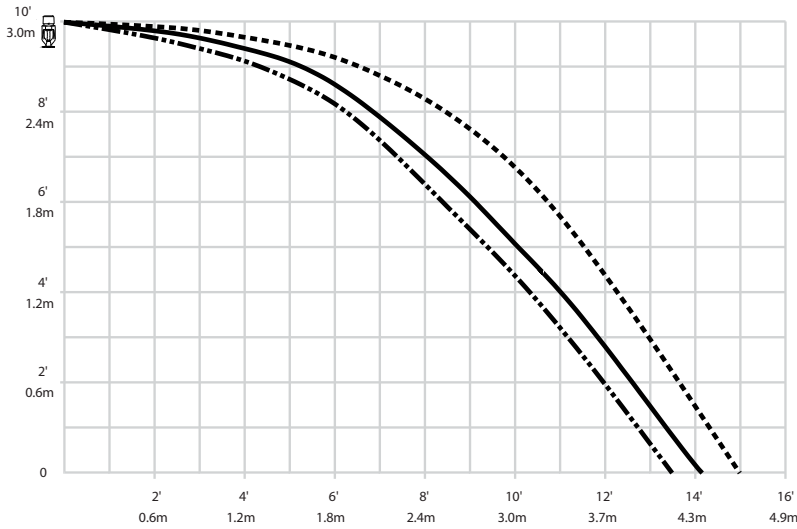
1/2" Adjustment Recessed – V3405, V3406 (drawing not to scale)



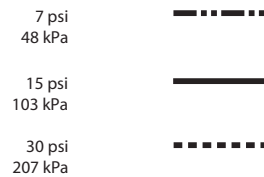
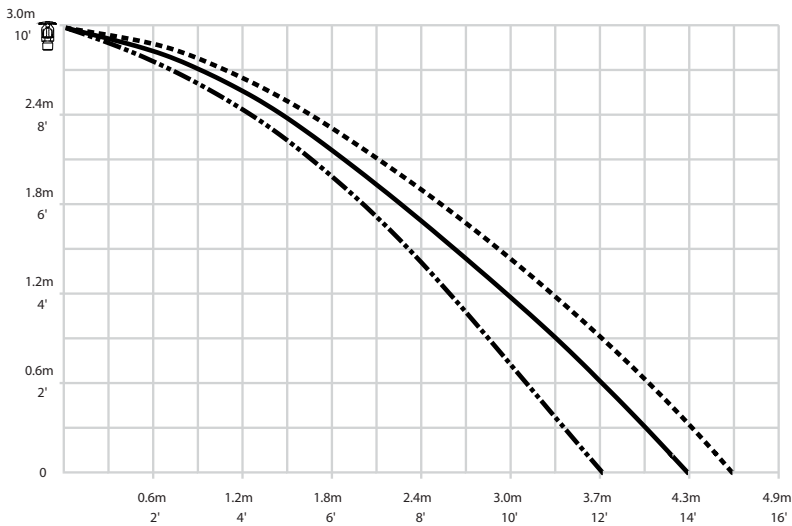
3/4" Adjustment Recessed – V3405, V3406 (drawing not to scale)

**Distribution Patterns:**

Models V3405, V3406  
K8.0 Standard Pendent and Recessed Pendent  
Distribution Patterns – Trajectory



Models V3401, V3402  
K8.0 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 -65°F (-54°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 <sup>8</sup> /107°C	Blue
Extra High <sup>7</sup>	K	360°F/182°C	300°F/149°C	Mauve
–	M	Open	–	No Bulb




<sup>7</sup> Standard response only.  
All are approved open, except for areas designated “No.”

<sup>8</sup> 150°F/65°C if wax coated.

**Available Wrenches:**

	V34 Recessed	V34 Open End
V3401, V402 Upright	–	✓
V3405, V3406 Pendent	✓	✓
V3405, V3406 Recessed Pendent	✓	–

**⚠ 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.