

## V27, K4.9

Residential Concealed Pendent and Specific Application (Flat & Sloped Ceilings)  
Quick Response

### V2734 and V2736

These Model V27 residential sprinklers are designed to meet the requirements of NFPA 13, 13D and 13R for residential use in a variety of room sizes, depending upon available operating pressure and room configuration. Model V2734 is UL Listed for use under smooth flat horizontal ceilings and sloped ceilings up to and including 8/12 (33.7°) pitch. The design incorporates state-of-the-art, heat responsive, frangible glass bulb design (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 boss to allow easy tightening from many angles, reducing assembly effort. This sprinkler is available in various finishes to meet many design requirements.

The V27 sprinklers are now available with the aesthetically pleasing dome cover plate, which also is available in various finishes to meet many design requirements.



SEE VICTAULIC PUBLICATION 10.01 FOR DETAILS



DOME COVER PLATE

### 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.

### COVERAGE:

Residential spray coverage up to 20 feet x 20 feet (6.1 m x 6.1 m) room sizes per NFPA.

### TECHNICAL SPECIFICATIONS:

**Models:** V2734, V2736

**Style:** Concealed Residential Pendent

**Nominal Orifice Size:** 7/16" 12mm

**K-Factor:**

- V2734 – 4.9 Imp./7.1 S.I.<sup>^</sup> for room sizes up to 16'/4.9m.
- V2736 – 4.9 Imp./7.1 S.I.<sup>^</sup> for room sizes 18' to 20'/5.5 and 6.1 m.

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

**Max. Working Pressure:** 175 psi/1200 kPa

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

**Min. Operating Pressure:** 7 psi/48 kPa

**Temperature Rating:** See chart on page 2.

### MATERIAL SPECIFICATIONS

**Pendent Deflector:** Bronze per UNS C51000

**Bulb:** Glass with glycerin solution.

**Bulb Nominal Diameter:**

- Quick Response: 3.0mm

**Load Screw:** Bronze per UNS C65100

**Pip Cap:** Bronze per UNS C65100

**Seal:** Teflon\* tape

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

**Cup:** Cold rolled steel, zinc-chrome plated.

**Cover/Escutcheon:** Brass per UNS C26000

### ACCESSORIES

**Installation Wrench:**

- Concealed: V39 or V27-2

**Finishes:**

- Chrome plated
- White painted
- Flat black
- Custom painted

For cabinets and other accessories refer to separate sheet.

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

\* Teflon is a registered trademark of Dupont Co.

### JOB/OWNER

System No. \_\_\_\_\_

Location \_\_\_\_\_

### CONTRACTOR

Submitted By \_\_\_\_\_

Date \_\_\_\_\_

### ENGINEER

Spec Sect \_\_\_\_\_ Para \_\_\_\_\_

Approved \_\_\_\_\_

Date \_\_\_\_\_

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APPROVALS/LISTINGS

Model	Orifice Size	Nominal K-Factor	Response	Deflector Type	Approved Temperature Ratings °F/°C ±	
	Inches mm	Imperial S.I.^	Standard or Quick			
V2734	7/16 12	4.9 7.1	Quick	Concealed Pendent	155 68	155 68
V2736	7/16 12	4.9 7.1	Quick	Concealed Pendent	156 68	156 68

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### RATINGS

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

SPRINKLER – V2734/V2736					COVER – V27		
Sprinkler Temperature Classification	Victaulic Part Identification	Sprinkler Temperature – °F/°C		Glass Bulb Color	Victaulic Part Identification	Cover Temperature – °F/°C	
		Nominal Temperature Rating	Maximum Ambient Temperature Allowed			Nominal Temperature Rating	Maximum Ambient Temperature Allowed
Ordinary	C	155 68	100 38	Red	A	135 57	100 38

### WARNING

- Proper temperature rated cover must be used with the correct sprinkler rating per the Temperature Chart Ratings.
- The plastic shipping cap must be removed for the sprinkler to operate properly.
- If shipping cap is replaced over an installed sprinkler for purposes of painting or plastering, then the fire protection system shall be considered out of service, the Authority Having Jurisdiction notified, and a firewatch is suggested.

Failure to do so may result in failure of sprinkler to operate causing serious personal injury or property damage.

### ORDERING INFORMATION

Please specify the following when ordering:

Sprinkler Model Number	
Style	
Temperature Rating	
K-Factor	
Thread Size	
Quantity	
Cover Finish	
Wrench Model Number	

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WARNING



### 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.

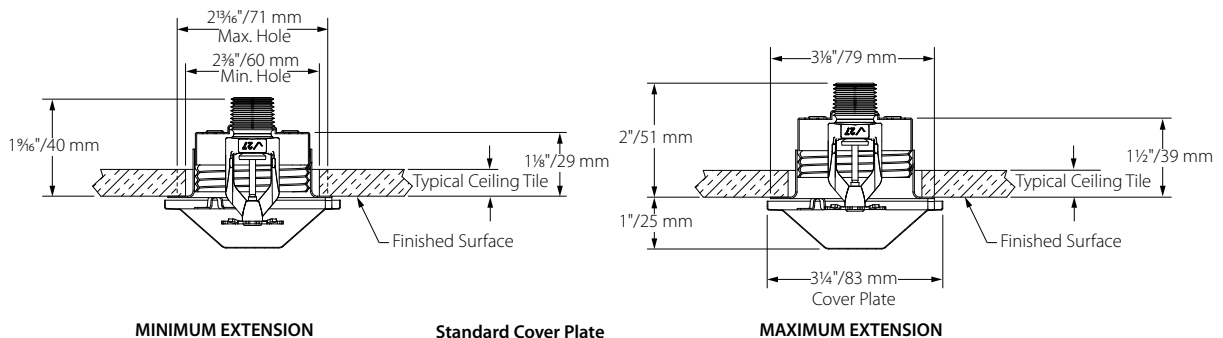
Failure to follow these instructions could result in serious personal injury and/or property damage.

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.

### DIMENSIONS

Models V2734, V2736  
(Drawings not to scale)



### AVAILABLE WRENCHES

Sprinkler Type	Concealed
V2734, V2736 Concealed Pendent	V39 or V27-2

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**V2734 and V2736****ROOM SIZE**

Installed Under Smooth Flat Horizontal Ceilings up to 2/12 (9.5°) Pitch

Ceiling Type	Model	Max. Coverage Area	Max. Spacing	Ordinary Temp Rating 155°F-68°C		Deflector to Ceiling	Minimum Spacing
		Ft. x Ft. m x m	Ft. m	Flow* GPM L/min	Pressure PSI kPa		
Horizontal Ceilings Up to 2/12 (9.5°) Pitch	V2734	12 X 12 3.7 X 3.7	12 3.7	13 49.2	7.0 48.5	N/A	8.0 2.4
	V2734	14 X 14 4.3 X 4.3	14 4.3	13 49.2	7.0 48.5	N/A	8.0 2.4
	V2734	16 X 16 4.9 X 4.9	16 4.9	14 53.0	8.2 57.0	N/A	8.0 2.4
	V2736	12 X 12 3.7 X 3.7	12 3.7	13 49.2	7.0 48.5	N/A	8.0 2.4
	V2736	14 X 14 4.3 X 4.3	14 4.3	17 64.3	12.0 83.0	N/A	8.0 2.4
	V2736	16 X 16 4.9 X 4.9	16 4.9	17 64.3	12.0 83.0	N/A	8.0 2.4
	V2736	18 X 18 5.5 X 5.5	18 5.5	17 64.3	12.0 83.0	N/A	8.0 2.4
	V2736	20 X 20 6.1 X 6.1	20 6.1	20 75.7	16.7 114.9	N/A	8.0 2.4

Installed Under Sloped Ceilings up to 4/12 (18.4°) Pitch

Ceiling Type	Model	Max. Coverage Area	Max. Spacing	Ordinary Temp Rating 155°F-68°C		Deflector to Ceiling	Minimum Spacing
		Ft. x Ft. m x m	Ft. m	Flow* GPM L/min	Pressure PSI kPa		
Sloped Ceilings up to 4/12 (18.4°) Pitch #	V2734	12 X 12 3.7 X 3.7	12 3.7	19 71.9"	15.0 103.0	N/A	8.0 2.4
	V2734	14 X 14 4.3 X 4.3	14 4.3	19 71.9	15.0 103.0	N/A	8.0 2.4
	V2734	16 X 16 4.9 X 4.9	16 4.9	19 71.9	15.0 103.0	N/A	8.0 2.4
	V2736	12 X 12 3.7 X 3.7	12 3.7	21 79.5	18.5 128.0	N/A	8.0 2.4
	V2736	14 X 14 4.3 X 4.3	14 4.3	21 79.5	18.5 128.0	N/A	8.0 2.4
	V2736	16 X 16 4.9 X 4.9	16 4.9	21 79.5	18.5 128.0	N/A	8.0 2.4
	V2736	18 X 18 5.5 X 5.5	18 5.5	21 79.5	18.5 128.0	N/A	8.0 2.4
	V2736	20 X 20 6.1 X 6.1	20 6.1	28 106.0	32.6 225.0	N/A	8.0 2.4

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### ROOM SIZE

Installed Under Sloped Ceilings up to 8/12 (33.7°) Pitch

Ceiling Type	Model	Max. Coverage Area	Max. Spacing	Ordinary Temp Rating 155°F-68°C		Deflector to Ceiling	Minimum Spacing
		Ft. x Ft. m x m	Ft. m	Flow* GPM L/min	Pressure PSI kPa		Ft. m
Sloped Ceilings up to 8/12 (33.7°) Pitch #	V2734	12 X 12 3.7 X 3.7	12 3.7	21 79.5	18.4 127.0	N/A	8.0 2.4
	V2734	14 X 14 4.3 X 4.3	14 4.3	21 79.5	18.4 127.0	N/A	8.0 2.4
	V2734	16 X 16 4.9 X 4.9	16 4.9	21 79.5	18.4 127.0	N/A	8.0 2.4
	V2736	12 X 12 3.7 X 3.7	—	—	—	N/A	8.0 2.4
	V2736	14 X 14 4.3 X 4.3	—	—	—	N/A	8.0 2.4
	V2736	16 X 16 4.9 X 4.9	—	—	—	N/A	8.0 2.4
	V2736	18 X 18 5.5 X 5.5	—	—	—	N/A	8.0 2.4
	V2736	20 X 20 6.1 X 6.1	—	—	—	N/A	8.0 2.4

#### NOTES:

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

\* For systems designed to NFPA 13, the number of design sprinklers is to be the four most demanding sprinklers. The minimum required discharge from each of the four sprinklers is to be the greater of the flow rates provided in the table for NFPA 13D and 13R systems and the maximum allowable coverage area or a minimum discharge of 0.1 gpm/ft.2 over the design area of the four most demanding sprinklers for the actual coverage areas being protected by four sprinklers.

# Where sprinklers are installed on sloped ceilings up to 8/12 pitch in NFPA 13D 2010 the Flat Horizontal Ceiling flows may be used for certain configurations. Refer to NFPA TIA 1028R for allowable installation criteria using Horizontal Ceiling Flows.

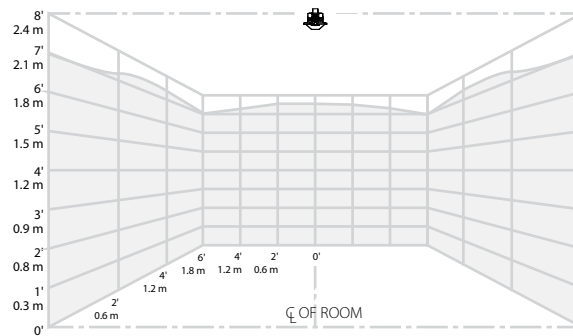
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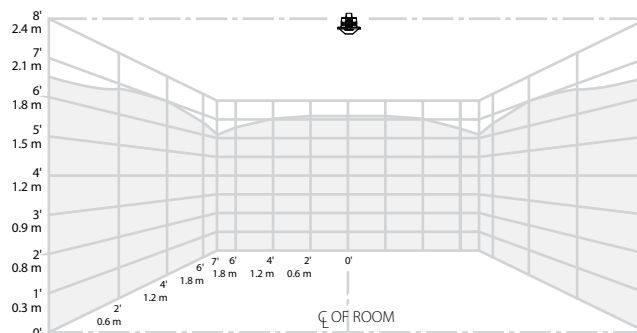
### NORMAL WETTING PATTERNS

**MODEL V2734  
K4.9 RESIDENTIAL CONCEALED  
13 GPM (49.2 LPM)**



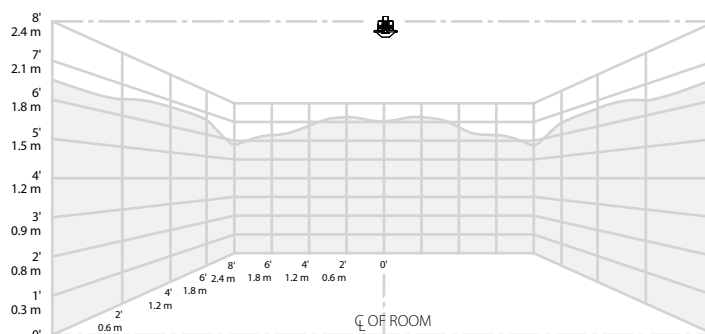
**NOMINAL WETTING PATTERN  
12' x 12' COVERAGE AREA**

**MODEL V2734  
K4.9 RESIDENTIAL CONCEALED  
13 GPM (49.2 LPM)**



**NOMINAL WETTING PATTERN  
14' x 14' COVERAGE AREA**

**MODEL V2734  
K4.9 RESIDENTIAL CONCEALED  
14 GPM (53.0 LPM)**



**NOMINAL WETTING PATTERN  
16' x 16' COVERAGE AREA**

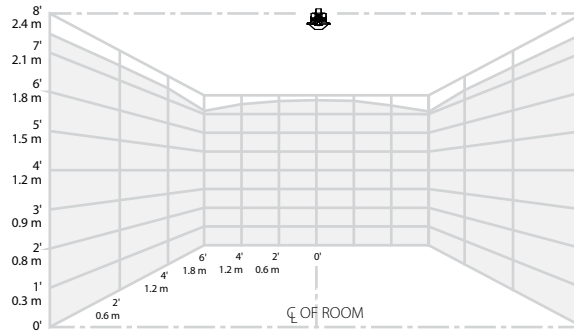
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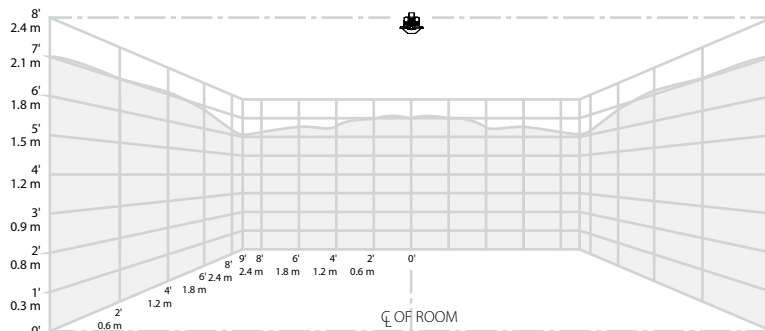
### NORMAL WETTING PATTERNS

**MODEL V2736  
K4.9 RESIDENTIAL CONCEALED  
13 GPM (49.2 LPM)**



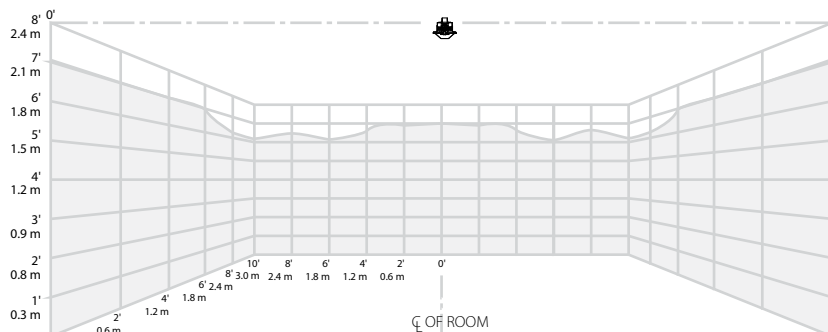
**NOMINAL WETTING PATTERN  
12' x 12' COVERAGE AREA**

**MODEL V2736  
K4.9 RESIDENTIAL CONCEALED  
17 GPM (64.3 LPM)**



**NOMINAL WETTING PATTERN  
18' x 18' COVERAGE AREA**

**MODEL V2736  
K4.9 RESIDENTIAL PENDENT AND RECESSED PENDENT  
20 GPM (75.7 LPM)**



**NOMINAL WETTING PATTERN  
20' x 20' COVERAGE AREA**

### NOTES:

- 1 Data shown is approximate and can vary due to differences in installation.
- 2 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.
- 3 All patterns are symmetrical to the centerline of the waterway.



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### WARRANTY

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

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### 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.

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For complete contact information, visit [www.victaulic.com](http://www.victaulic.com)

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