

V27, K4.9

Models V2734 and V2736 Residential Concealed Pendant and Specific Application (Flat & Sloped Ceilings) Quick Response

PRODUCT DESCRIPTION



Dome Cover Plate



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.

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.

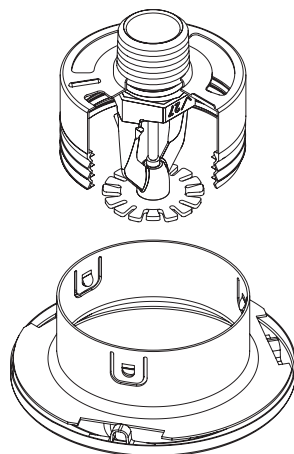
When the ambient temperature reaches the rated temperature of the sprinkler, the bulb shatters. As a result, the waterway is cleared of all sealing parts and water is discharged towards the deflector. The deflector is designed to distribute the water in a pattern that is most effective in controlling the fire.

Coverage

Residential spray coverage up to 20 feet X 20 feet (6,1 m X 6,1 m) room sizes per NFPA.

These sprinklers meet the requirements of UL 1626 that became effective September 26, 2004.

TECHNICAL SPECIFICATIONS



Exaggerated for Clarity

Models: V2734, V2736

Style: Concealed Residential Pendant

Nominal Orifice Size: 7/16" (12 mm)

K-Factor:

V2734 – 4.9 Imp. (7,1 S.I. ^) for room sizes up to 16' (4,9 m).

V2736 – 4.9 Imp. (7,1 S.I. ^) for room sizes 18' to 20' (5,5 and 6,1 m).

Nominal Thread Size: 1/2" NPT (15 mm)

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: 3.0 mm

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: V38-3

Finishes:

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

For cabinets and other accessories refer to separate sheet.

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

*Teflon is a registered trademark of Dupont Co.

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APPROVALS/LISTINGS

Model	Nominal Orifice Size Inches/mm	Nominal K-Factor Imperial S.I. [^]	Response	Deflector Type	Approved Temperature Ratings °F/°C ‡			
					UL	ULC	NYC/MEA†	CSFM §
V2734	7/16 12	4.9 7,1	Quick	Concealed Pendent	155 68	155 68	155 68	155 68
V2736	7/16 12	4.9 7,1	Quick	Concealed Pendent	155 68	155 68	155 68	155 68

‡ Listings and approval as of printing.

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

† MEA #62-99-E.

§ CSFM #7690-0531:112

RATINGS

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

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

*A for use with Standard or Quick Response Concealed Sprinklers 135°F (57°C) or 155°F (68°C).

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

WARNING



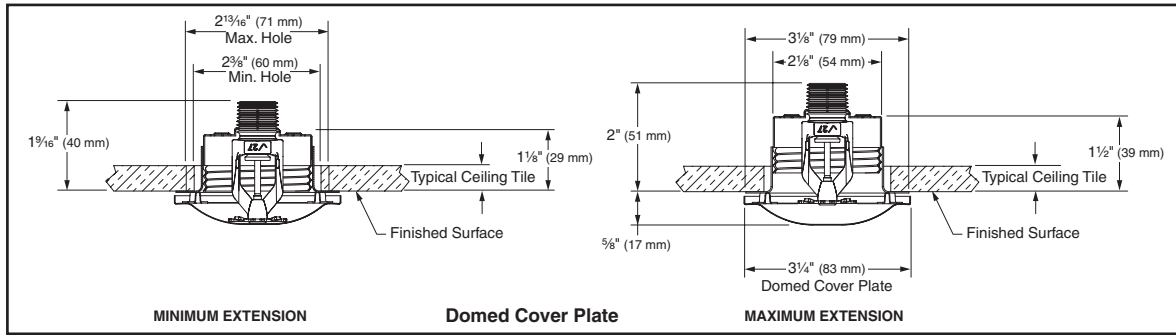
- Always read and understand installation, care, and maintenance instructions, supplied with each box of sprinklers, before proceeding with installation of any sprinklers.
 - Always wear safety glasses and foot protection.
 - Depressurize and drain the piping system before attempting to install, remove, 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, 610-559-3300.

DIMENSIONS

Models V2734/V2736
 (Drawings not to scale)



AVAILABLE WRENCHES

	Recessed
V2734, V2736 – Concealed Pendant	V38-3

ROOM SIZE

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

Model	Room Size Feet/meters	Min. Installation Spacing Feet/meters	Nominal K-Factor Imperial S.I. [^]	Minimum Flow per Sprinkler for Horizontal Ceilings Maximum 2/12 (9.5°) Pitch For NFPA 13R or 13D* GPM/LPM @ PSI/kPa
V2734	12 × 12 3,7 × 3,7	8,0 2,4	4,9 7,1	13 GPM @ 7.0 PSI 49,2 LPM @ 48,5kPa
V2734	14 × 14 4,3 × 4,3	8,0 2,4	4,9 7,1	13 GPM @ 7.0 PSI 49,2 LPM @ 48,5kPa
V2734	16 × 16 4,9 × 4,9	8,0 2,4	4,9 7,1	14 GPM @ 8,2 PSI 53,0 LPM @ 57,0 kPa
V2736	12 × 12 3,7 × 3,7	8,0 2,4	4,9 7,1	13 GPM @ 7.0 PSI 49,2 LPM @ 48,5kPa
V2736	14 × 14 4,3 × 4,3	8,0 2,4	4,9 7,1	17 GPM @ 12,0 PSI 64,3 LPM @ 83,0 kPa
V2736	16 × 16 4,9 × 4,9	8,0 2,4	4,9 7,1	17 GPM @ 12,0 PSI 64,3 LPM @ 83,0 kPa
V2736	18 × 18 5,5 × 5,5	8,0 2,4	4,9 7,1	17 GPM @ 12,0 PSI 64,3 LPM @ 83,0 kPa
V2736	20 × 20 6,1 × 6,1	8,0 2,4	4,9 7,1	20 GPM @ 16,7 PSI 75,7 LPM @ 114,9 kPa

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

Model	Room Size Feet/meters	Min. Installation Spacing Feet/meters	Nominal K-Factor Imperial S.I.	Minimum Flow per Sprinkler for Sloped Ceilings Maximum 4/12 (18.4°) Pitch For NFPA 13R or 13D* GPM/LPM @ PSI/kPa
V2734	12 × 12 3,7 × 3,7	8,0 2,4	4,9 7,1	19 GPM @ 15 PSI 71,9 LPM @ 103,0 kPa
V2734	14 × 14 4,3 × 4,3	8,0 2,4	4,9 7,1	19 GPM @ 15 PSI 71,9 LPM @ 103,0 kPa
V2734	16 × 16 4,9 × 4,9	8,0 2,4	4,9 7,1	19 GPM @ 15 PSI 71,9 LPM @ 103,0 kPa
V2736	12 × 12 3,7 × 3,7	8,0 2,4	4,9 7,1	21 GPM @ 18,5 PSI 79,5 LPM @ 128,0 kPa
V2736	14 × 14 4,3 × 4,3	8,0 2,4	4,9 7,1	21 GPM @ 18,5 PSI 79,5 LPM @ 128,0 kPa
V2736	16 × 16 4,9 × 4,9	8,0 2,4	4,9 7,1	21 GPM @ 18,5 PSI 79,5 LPM @ 128,0 kPa
V2736	18 × 18 5,5 × 5,5	8,0 2,4	4,9 7,1	21 GPM @ 18,5 PSI 79,5 LPM @ 128,0 kPa
V2736	20 × 20 6,1 × 6,1	8,0 2,4	4,9 7,1	28 GPM @ 32,6 PSI 106,0 LPM @ 225,0 kPa

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

Model	Room Size Feet/meters	Min. Installation Spacing Feet/meters	Nominal K-Factor Imperial S.I.	Minimum Flow per Sprinkler for Sloped Ceilings Maximum 8/12 (33.7°) Pitch For NFPA 13R or 13D* GPM/LPM @ PSI/kPa
V2734	12 × 12 3,7 × 3,7	8,0 2,4	4,9 7,1	21 GPM @ 18,4 PSI 79,5 LPM @ 127,0 kPa
V2734	14 × 14 4,3 × 4,3	8,0 2,4	4,9 7,1	21 GPM @ 18,4 PSI 79,5 LPM @ 127,0 kPa
V2734	16 × 16 4,9 × 4,9	8,0 2,4	4,9 7,1	21 GPM @ 18,4 PSI 79,5 LPM @ 127,0 kPa
V2736	12 × 12 3,7 × 3,7	8,0 2,4	4,9 7,1	– –
V2736	14 × 14 4,3 × 4,3	8,0 2,4	4,9 7,1	– –
V2736	16 × 16 4,9 × 4,9	8,0 2,4	4,9 7,1	– –
V2736	18 × 18 5,5 × 5,5	8,0 2,4	4,9 7,1	– –
V2736	20 × 20 6,1 × 6,1	8,0 2,4	4,9 7,1	– –

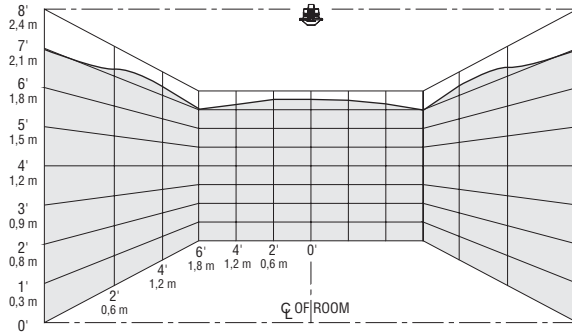
NOTES:

[^] 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.

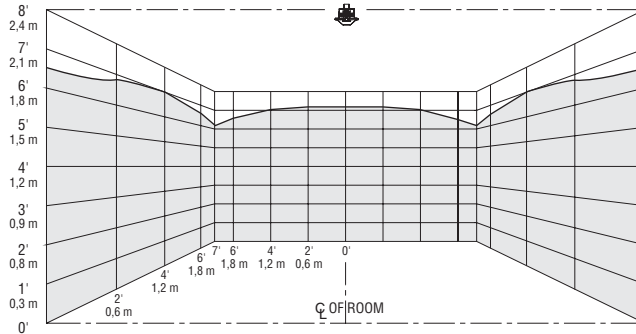
NOMINAL WETTING PATTERNS

MODEL V2734
K4.9 RESIDENTIAL CONCEALED
 13 GPM (49,2 LPM)



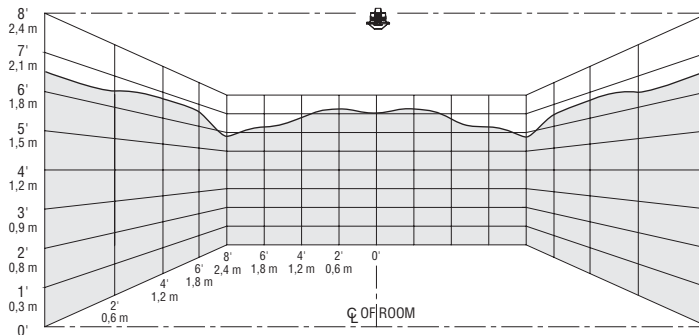
NOMINAL WETTING PATTERN
 12' X 12' COVERAGE AREA

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)



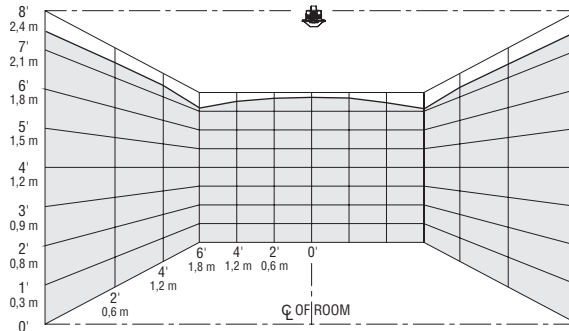
NOMINAL WETTING PATTERN
 16' X 16' COVERAGE AREA

NOTES:

1. Data shown is approximate and can vary due to differences in installation.
2. These graphs illustrate approximate wall-wetting patterns for these specific Victaulic FireLock Automatic Sprinklers. They are provided as information for guidance and should not be used as minimum sprinkler spacing rules for installation. Sprinkler location shall be in accordance with the obstruction rules for residential sprinklers in NFPA 13 (2002 or later edition). 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 symmetric to waterway.

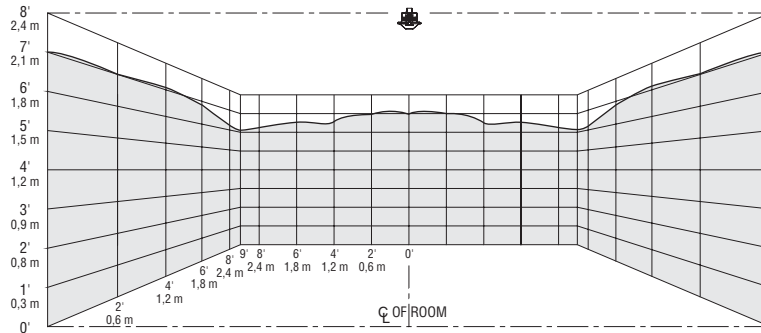
NOMINAL WETTING PATTERNS

MODEL V2736
K4.9 RESIDENTIAL CONCEALED
 13 GPM (49,2 LPM)



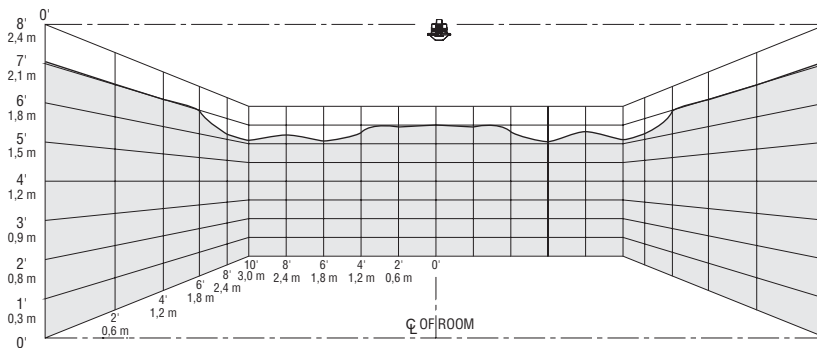
NOMINAL WETTING PATTERN
 12' X 12' COVERAGE AREA

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:

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2. These graphs illustrate approximate wall-wetting patterns for these specific Victaulic FireLock Automatic Sprinklers. They are provided as information for guidance and should not be used as minimum sprinkler spacing rules for installation. Sprinkler location shall be in accordance with the obstruction rules for residential sprinklers in NFPA 13 (2002 or later edition). 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 symmetric to waterway.

WARRANTY

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

This product shall be manufactured by Victaulic Company. 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.