

**V27, K4.9**

Residential Concealed Pendant

**V2742 QUICK RESPONSE**

This Model V27 residential sprinkler is 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 V2742 is UL Listed for use under smooth flat horizontal ceilings. 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 sprinkler is now available with the aesthetically pleasing dome cover plate, which also is available in various finishes to meet many design requirements.



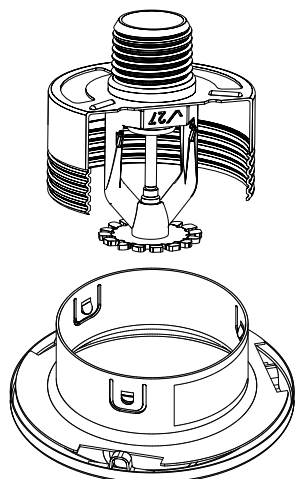
SEE VICTAULIC PUBLICATION 10.01 FOR DETAILS

**DOMES COVER PLATE  
(V2742)****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:***Exaggerated for Clarity***Model:** V2742**Style:** Concealed Residential Pendant**Nominal Orifice Size:** 7/8"/12 mm**K-Factor:** V2742 – 4.9 Imp./7.1 S.I.^ for room sizes up to 20'/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 3**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: V39/V27-2**Sprinkler Finishes:**

- Chrome plated
- Brass 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.

† These finishes require longer lead times. Contact Victaulic for details.

**JOB/OWNER**

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

Location \_\_\_\_\_

**CONTRACTOR**

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

Date \_\_\_\_\_

**ENGINEER**

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

Approved \_\_\_\_\_

Date \_\_\_\_\_

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**V27, K4.9**

Residential Concealed Pendent

**V2742 QUICK RESPONSE****APPROVALS/LISTINGS**

Model	Orifice Size	Nominal K-Factor	Response	Deflector Type	Approved Temperature Ratings °F/°C ‡
	Inches mm	Imperial S.I. ^			cULus
V2742	7/16 12	4.9 7.1	Quick	Concealed Pendent	155 68

‡ Listings and approval as of printing.

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

**RATINGS**

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

Sprinkler		Sprinkler – V2742			Cover – V27		
Temperature Classification	Victaulic Part Identification	Temperature – °F/°C			Victaulic Part Identification	Cover Temperature – °F/°C	
		Nominal Temperature Rating	Maximum Ambient Temperature Allowed	Glass Bulb Color		Nominal Temperature Rating	Maximum Ambient Temperature Allowed
Ordinary	C	155 68	100 38	Red	A	135 57	100 38

**WARNING****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.

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Residential Concealed Pendent

**V2742 QUICK RESPONSE****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****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.

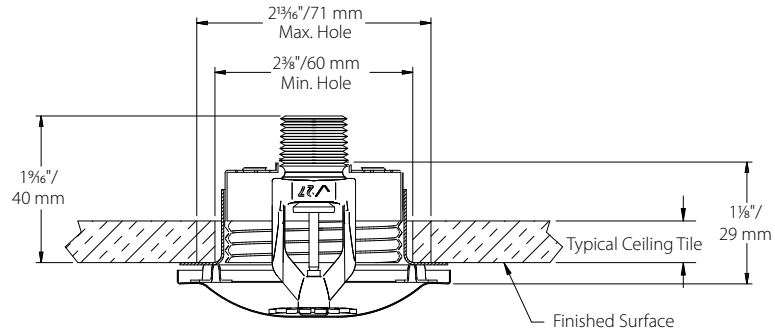
Failure to follow these instructions could result in serious personal injury and/or property damage.

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.

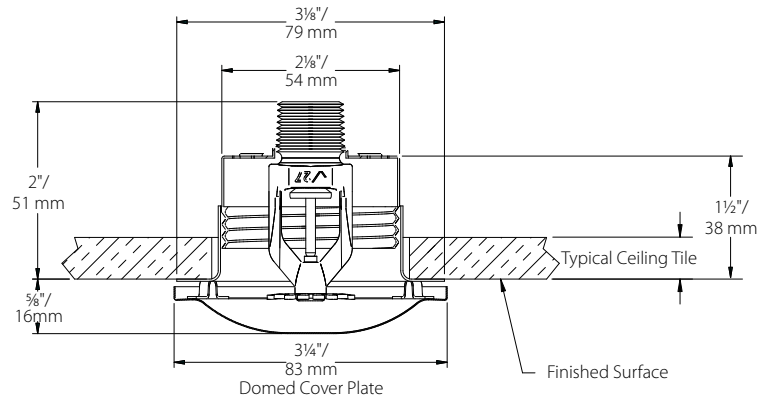
If you need additional copies of this publication, or if you have any questions about the safe installation of this product, contact Victaulic World Headquarters: P.O. Box 31, Easton, Pennsylvania 18044-0031 USA, Telephone: 001-610-559-3300.

**V27, K4.9**

Residential Concealed Pendent

**V2742 QUICK RESPONSE****DIMENSIONS****Model V2742 (drawing not to scale)**

MAXIMUM EXTENSION



MAXIMUM RECESS

**V27, K4.9**

Residential Concealed Pendent

**V2742 QUICK RESPONSE****ROOM SIZE**

Victaulic V2742, 4.9 K-Factor Concealed Pendent Sprinkler  
For Ceiling types refer to NFPA 13, 13R or 13D 2013 Editions

Max. Coverage Area <sup>(a)</sup>	Ordinary Temp Rating 155°F/68°C		Intermediate Temp Rating 175°F/79°C		Deflector to Ceiling	Installation Type	Minimum Spacing
	Ft. x Ft. m x m	Flow <sup>(b)</sup> GPM L/min	Pressure <sup>(b)</sup> PSI bar	Flow <sup>(b)</sup> GPM L/min	Pressure <sup>(b)</sup> PSI bar		
12 X 12 3.7 X 3.7	13 49.2	7.0 0.48	N/A	N/A	N/A	Concealed Sprinkler using Model V27 Coverplate Assembly	8.0 2.4
14 X 14 4.3 X 4.3	13 49.2	7.0 0.48	N/A	N/A			
16 X 16 4.9 X 4.9	13 49.2	7.0 0.48	N/A	N/A			
18 X 18 5.5 X 5.5	17 64.3	12 0.83	N/A	N/A			
20 X 20 6.1 X 6.1	20 75.7	16.7 1.15	N/A	N/A			

Notes:

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

(a) For coverage area dimensions less than or between those indicated, use the minimum required flow for the next highest coverage area for which hydraulic design criteria are stated.

(b) For NFPA 13 residential applications, the greater of 0.1gpm/ft<sup>2</sup> over the design area of the flow in accordance with the criteria in the table must be used.

**AVAILABLE WRENCHES**

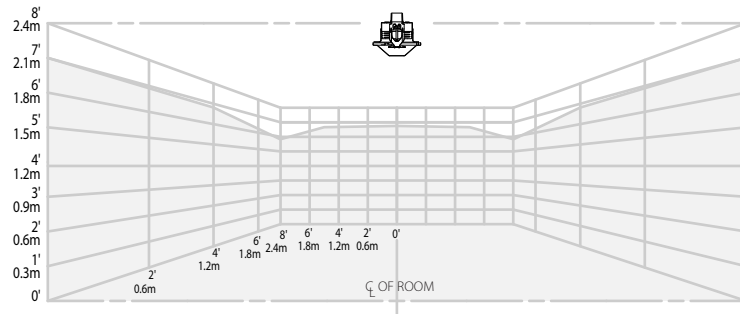
Sprinkler Type	Concealed
V2742 Concealed Pendent	V39/V27-2

**V27, K4.9**

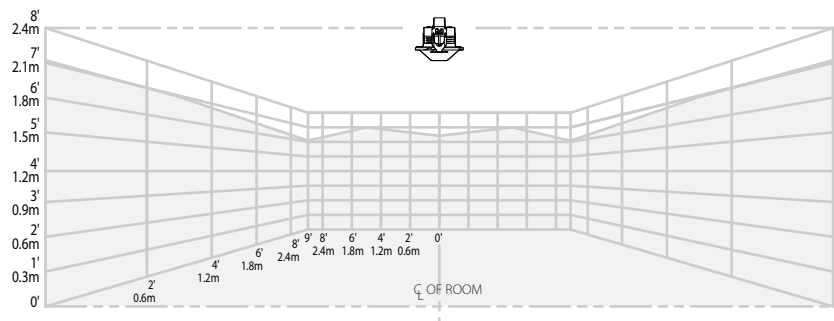
Residential Concealed Pendent

**V2742 QUICK RESPONSE****NOMINAL WETTING PATTERNS****Model V2742****K4.9 residential concealed pendent**

13 GPM/49.2 LPM – 16' x 16'/4.9 x 4.9m coverage area

**Model V2742****K4.9 residential concealed pendent**

17 GPM/64.3 LPM – 18' x 18'/5.5 x 5.5m coverage area



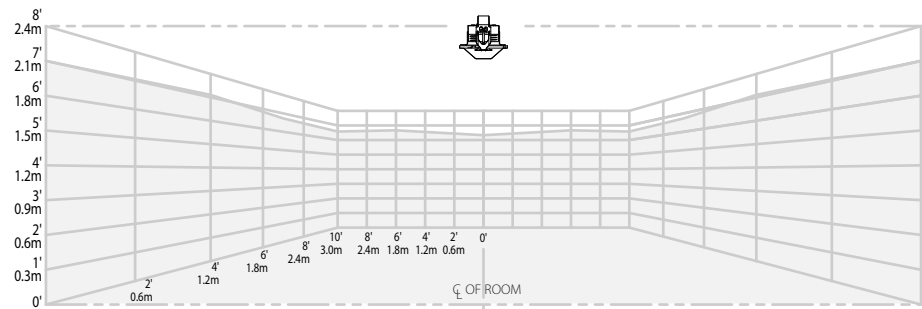
See notes on next page.

**V27, K4.9**

Residential Concealed Pendent

**V2742 QUICK RESPONSE****NOMINAL WETTING PATTERNS****Model V2742****K4.9 residential concealed pendent**

20 GPM/75.7 LPM – 20' x 20'/6.1 x 6.1 m 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.

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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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