

V27, K4.9

Residential Pendent and Recessed Pendent

V2740 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 V2740 is UL Listed for use under smooth flat horizontal ceilings and sloped ceilings up to and including 8/12 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.



SEE VICTAULIC PUBLICATION 10.01 FOR DETAILS



PENDENT (V2740)

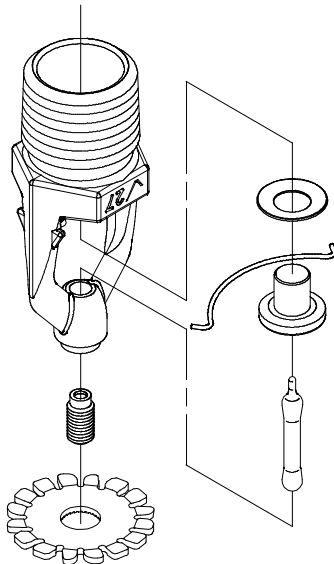
SPRINKLER OPERATION:

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:** V2740
- Style:** Pendent and Recessed Pendent
- Nominal Orifice Size:** 7/16" / 12 mm
- K-Factor:** 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

ACCESSORIES

Installation Wrench:

- Open End: V27
- Recessed: V27-1

Sprinkler Finishes:

- Plain brass
- Chrome plated
- White painted**
- Custom painted**

For escutcheons, 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.

**UL Listed for corrosion resistance in all configurations.

NOTE: Weather resistant recessed escutcheon available upon request.

JOB/OWNER

System No. _____

Location _____

CONTRACTOR

Submitted By _____

Date _____

ENGINEER

Spec Sect _____ Para _____

Approved _____

Date _____

V27, K4.9

Residential Pendent and Recessed Pendent

V2740 QUICK RESPONSE

APPROVALS/LISTINGS

Model	Orifice Size	Nominal K-Factor	Response	Deflector Type	Approved Temperature Ratings °F/°C ‡
	Inches mm	Imperial S.I.^			cULus
V2740	7/16 12	4.9 7.1	Quick	Pendent	155, 175 68, 79
V2740	7/16 12	4.9 7.1	Quick	Recessed Pendent Up to 1/2" Adjustment *	155, 175 68, 79
V2740	7/16 12	4.9 7.1	Quick	Recessed Pendent Up to 3/4" Adjustment #	155, 175 68, 79

‡ Listings and approval as of printing.

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

* For 12' x 12' to 20' x 20' rooms

For 12' x 12' to 18' x 18' rooms

RATINGS

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

Sprinkler Temperature Classification	Victaulic Part Identification	Temperature – °F/°C		Glass Bulb Color
		Nominal Temperature Rating	Maximum Ambient Temperature Allowed	
Ordinary	C	155 68	100 38	Red
Intermediate	E	175 79	150 65	Yellow

ORDERING INFORMATION

Please specify the following when ordering:

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

V27, K4.9




Residential Pendent and Recessed Pendent

V2740 QUICK RESPONSE



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.

AVAILABLE WRENCHES

Sprinkler Type	Open End	Recessed
V2740 Pendent	V27	V27-1
V2740 Recessed Pendent	—	V27-1

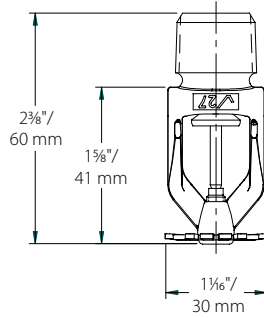
V27, K4.9

Residential Pendent and Recessed Pendent

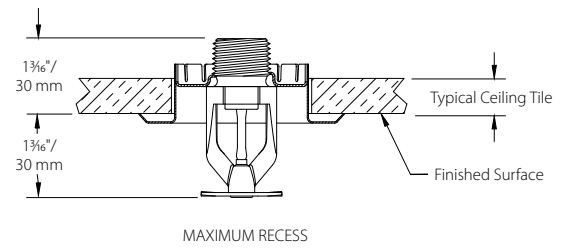
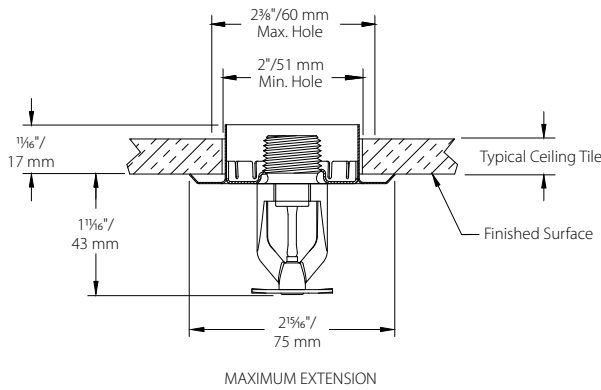
V2740 QUICK RESPONSE

DIMENSIONS

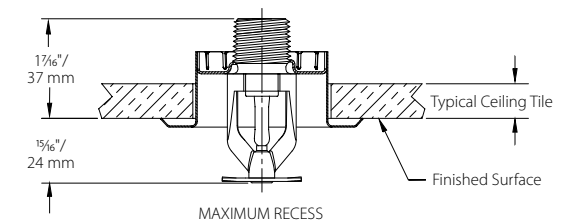
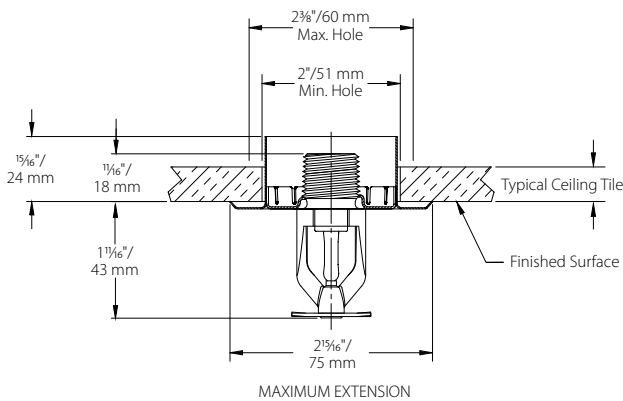
Standard Pendent – V2740



Maximum Recess – 1/2" Adjustment Recessed – V2740 (drawing not to scale)



Maximum Recess – 3/4" Adjustment Recessed – V2740 (drawing not to scale)



V27, K4.9

Residential Pendent and Recessed Pendent

V2740 QUICK RESPONSE

ROOM SIZE

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

Model	Room Size	Min. Installation Spacing	Nominal K-Factor	Minimum Flow per Sprinkler for Smooth Flat Horizontal Ceilings Max. 2/12 (9.5°) Pitch for NFPA 13R or 13D*	
				Imperial S.I. [^]	GPM/LPM @ psi/kPa
V2740	12 x 12 3.7 x 3.7	8.0 2.4	4.9 7.1	13 GPM @ 7.0 psi 49.2 LPM @ 48.5 kPa	
				13 GPM @ 7.0 psi 49.2 LPM @ 48.5 kPa	
V2740	14 x 14 4.3 x 4.3	8.0 2.4	4.9 7.1	13 GPM @ 7.0 psi 49.2 LPM @ 48.5 kPa	
				13 GPM @ 7.0 psi 49.2 LPM @ 48.5 kPa	
V2740	16 x 16 4.9 x 4.9	8.0 2.4	4.9 7.1	13 GPM @ 7.0 psi 49.2 LPM @ 48.5 kPa	
				13 GPM @ 7.0 psi 49.2 LPM @ 48.5 kPa	
V2740	18 x 18 5.5 x 5.5	8.0 2.4	4.9 7.1	17 GPM @ 12.0 psi 64.3 LPM @ 83.0 kPa	
				17 GPM @ 12.0 psi 64.3 LPM @ 83.0 kPa	
V2740	20 x 20 6.1 x 6.1	8.0 2.4	4.9 7.1	20 GPM @ 16.7 psi 75.7 LPM @ 114.9 kPa	
				20 GPM @ 16.7 psi 75.7 LPM @ 114.9 kPa	

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.

SLOPED CEILINGS WITH 8/12 (33.7°) PITCH

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

IMPORTANT:

The UL Listing for sloped installations is limited to a maximum ceiling height of 24 feet/7.3m at the peak, with a maximum of two sprinklers installed at the peak. No lofts are allowed in rooms with sloped ceilings.

Model	Room Size	Min. Installation Spacing	Nominal K-Factor	Minimum Flow per Sprinkler for Sloped Ceilings Max. 8/12 (33.7°) Pitch for NFPA 13R or 13D* GPM/LPM @ psi/kPa	
				Imperial S.I. [^]	155°F 68°C
V2740	12 x 12 3.7 x 3.7	8.0 2.4	4.9 7.1	21 GPM @ 18.4 psi 79.5 LPM @ 127.0 kPa	
				24 GPM @ 24.0 psi 90.8 LPM @ 165.0 kPa	
V2740	14 x 14 4.3 x 4.3	8.0 2.4	4.9 7.1	21 GPM @ 18.4 psi 79.5 LPM @ 127.0 kPa	
				24 GPM @ 24.0 psi 90.8 LPM @ 165.0 kPa	
V2740	16 x 16 4.9 x 4.9	8.0 2.4	4.9 7.1	21 GPM @ 18.4 psi 79.5 LPM @ 127.0 kPa	
				24 GPM @ 24.0 psi 90.8 LPM @ 165.0 kPa	
V2740	18 x 18 5.5 x 5.5	8.0 2.4	4.9 7.1	21 GPM @ 18.4 psi 79.5 LPM @ 127.0 kPa	
				24 GPM @ 24.0 psi 90.8 LPM @ 165.0 kPa	
V2740	20 x 20 6.1 x 6.1	8.0 2.4	4.9 7.1	21 GPM @ 18.4 psi 79.5 LPM @ 127.0 kPa	
				24 GPM @ 24.0 psi 90.8 LPM @ 165.0 kPa	

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.

† Maximum 1/2" recess.

V27, K4.9

Residential Pendent and Recessed Pendent

V2740 QUICK RESPONSE

SLOPED CEILINGS WITH 4/12 (18.4°) PITCH

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

IMPORTANT:

The UL Listing for sloped installations is limited to a maximum ceiling height of 24 feet/7.3m at the peak, with a maximum of two sprinklers installed at the peak. No lofts are allowed in rooms with sloped ceilings.

Model	Room Size	Min. Installation Spacing	Nominal K-Factor	Minimum Flow per Sprinkler for Sloped Ceilings
				Max. 4/12 (18.4°) Pitch for NFPA 13R or 13D* GPM/LPM @ psi/kPa
	Feet meters	Feet meters	Imperial S.I.^	155°F 68°C
V2740	12 x 12 3.7 x 3.7	8.0 2.4	4.9 7.1	22 GPM @ 20.2 psi 79.5 LPM @ 127.0 kPa
V2740	14 x 14 4.3 x 4.3	8.0 2.4	4.9 7.1	22 GPM @ 20.2 psi 79.5 LPM @ 127.0 kPa
V2740	16 x 16 4.9 x 4.9	8.0 2.4	4.9 7.1	22 GPM @ 20.2 psi 79.5 LPM @ 127.0 kPa
V2740	18 x 18 5.5 x 5.5	8.0 2.4	4.9 7.1	22 GPM @ 20.2 psi 83.3 LPM @ 139.3 kPa

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.

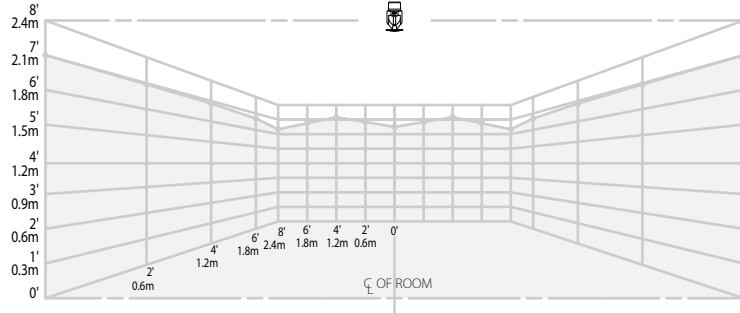
V27, K4.9

Residential Pendent and Recessed Pendent

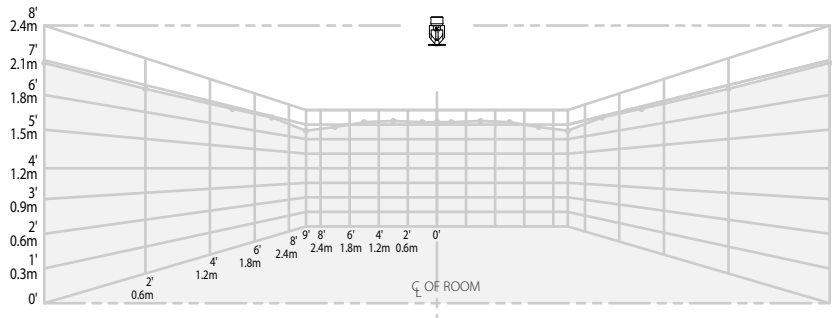
V2740 QUICK RESPONSE

NOMINAL WETTING PATTERNS

Model V2740
K4.9 residential pendent and recessed pendent (3/4")
 13 GPM/49.2 LPM – 16' x 16'/4.9 x 4.9m coverage area



Model V2740
K4.9 residential pendent and recessed pendent (3/4")
 17 GPM/64.3 LPM – 18' x 18'/5.5 x 5.5m coverage area



See notes on next page.

V27, K4.9

Residential Pendant and Recessed Pendant

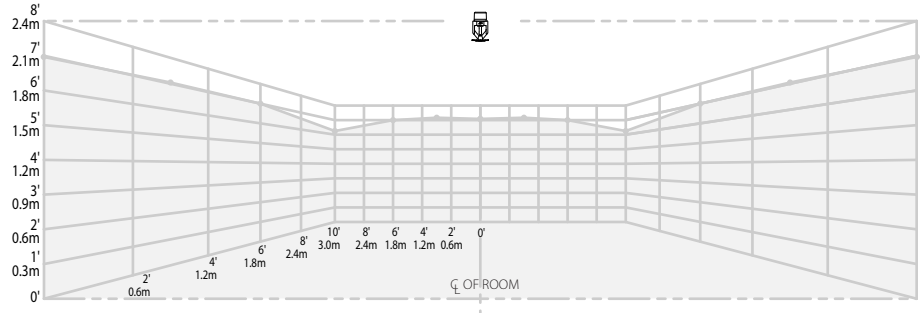
V2740 QUICK RESPONSE

NOMINAL WETTING PATTERNS

Model V2740

K4.9 residential pendant and recessed pendant (1/2")

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 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.

V27, K4.9

Residential Pendent and Recessed Pendent

V2740 QUICK RESPONSE

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.

For complete contact information, visit www.victaulic.com

40.47 4525 REV C UPDATED 8/2009

VICTAULIC IS A REGISTERED TRADEMARK OF VICTAULIC COMPANY. © 2009 VICTAULIC COMPANY. ALL RIGHTS RESERVED.

40.47

