**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. 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.

**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:**

- **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:** ½” 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 Finish:**
  - 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.
V27, K4.9

Residential Pendent and Recessed Pendent

V2740 QUICK RESPONSE

APPROVALS/LISTINGS

<table>
<thead>
<tr>
<th>Model</th>
<th>Orifice Size</th>
<th>Nominal K-Factor</th>
<th>Response</th>
<th>Deflector Type</th>
<th>Approved Temperature Ratings °F/°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>V2740</td>
<td>1/4&quot; 12</td>
<td>4.9 71</td>
<td>Quick</td>
<td>Pendent</td>
<td>155, 175 68, 79</td>
</tr>
<tr>
<td>V2740</td>
<td>1/4&quot; 12</td>
<td>4.9 71</td>
<td>Quick</td>
<td>Recessed Pendent Up to 1/2&quot; Adjustment *</td>
<td>155, 175 68, 79</td>
</tr>
<tr>
<td>V2740</td>
<td>1/4&quot; 12</td>
<td>4.9 71</td>
<td>Quick</td>
<td>Recessed Pendent Up to 3/4&quot; Adjustment #</td>
<td>155, 175 68, 79</td>
</tr>
</tbody>
</table>

‡ 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 the table below.

<table>
<thead>
<tr>
<th>Sprinkler Temperature Classification</th>
<th>Victaulic Part Identification</th>
<th>Temperature – °F°C</th>
<th>Nominal Temperature Rating</th>
<th>Maximum Ambient Temperature Allowed</th>
<th>Glass Bulb Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ordinary</td>
<td>C</td>
<td></td>
<td>155</td>
<td>100</td>
<td>Red</td>
</tr>
<tr>
<td>Intermediate</td>
<td>E</td>
<td></td>
<td>175</td>
<td>150</td>
<td>Yellow</td>
</tr>
</tbody>
</table>

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

- 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

<table>
<thead>
<tr>
<th>Sprinkler Type</th>
<th>Open End</th>
<th>Recessed</th>
</tr>
</thead>
<tbody>
<tr>
<td>V2740 Pendent</td>
<td>V27</td>
<td>V27-2</td>
</tr>
<tr>
<td>V2740 Recessed Pendent</td>
<td>—</td>
<td>V27-2</td>
</tr>
</tbody>
</table>
V27, K4.9
Residential Pendent and Recessed Pendent
V2740 QUICK RESPONSE

DIMENSIONS

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

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

Vicfaulic V2740, 4.9 K-Factor Pendent Sprinkler

For Ceiling types refer to NFPA 13, 13R or 13D 2013 Editions

<table>
<thead>
<tr>
<th>Max. Coverage Area (a)</th>
<th>Ordinary Temp Rating 155°F/68°C Flow (b) GPM</th>
<th>Pressure (b) PSI</th>
<th>Intermediate Temp Rating 175°F/79°C Flow (b) GPM</th>
<th>Pressure (b) PSI</th>
<th>Deflector to Ceiling</th>
<th>Installation Type</th>
<th>Minimum Spacing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ft. x Ft. m x m</td>
<td>(a)</td>
<td>(b)</td>
<td>(c)</td>
<td>(d)</td>
<td>(e)</td>
<td>(f)</td>
<td>(g)</td>
</tr>
<tr>
<td>12 x 12 3.7 x 3.7</td>
<td>13 GPM</td>
<td>70</td>
<td>13 GPM</td>
<td>70</td>
<td>1/4 to 4 inch</td>
<td>3/4&quot; recessed Escutcheon or non-recessed per NFPA 13, 13R or 13D</td>
<td>1.80</td>
</tr>
<tr>
<td>14 x 14 4.3 x 4.3</td>
<td>13 GPM</td>
<td>70</td>
<td>13 GPM</td>
<td>70</td>
<td></td>
<td></td>
<td>2.40</td>
</tr>
<tr>
<td>16 x 16 4.9 x 4.9</td>
<td>13 GPM</td>
<td>70</td>
<td>13 GPM</td>
<td>70</td>
<td></td>
<td></td>
<td>2.40</td>
</tr>
<tr>
<td>18 x 18 5.5 x 5.5</td>
<td>17 GPM</td>
<td>0.83</td>
<td>17 GPM</td>
<td>0.83</td>
<td></td>
<td></td>
<td>2.40</td>
</tr>
<tr>
<td>20 x 20 6.1 x 6.1</td>
<td>20 GPM</td>
<td>1.15</td>
<td>20 GPM</td>
<td>1.15</td>
<td></td>
<td></td>
<td>2.40</td>
</tr>
</tbody>
</table>

(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/ft² over the design area of the flow in accordance with the criteria in the table must be used.

(c) For 20 x 20 Coverage Area- 1/4" Maximum Recess
NOMINAL WETTING PATTERNS

Model V2740
K4.9 residential pendent and recessed pendent (1/4"
13 GPM/49.2 LPM – 16’ x 16’/4.9 x 4.9 m coverage area

Model V2740
K4.9 residential pendent and recessed pendent (1/4"
17 GPM/64.3 LPM – 18’ x 18’/5.5 x 5.5 m coverage area

See notes on next page.
V27, K4.9
Residential Pendent and Recessed Pendent

V2740 QUICK RESPONSE

NOMINAL WETTING PATTERNS

Model V2740

K4.9 residential pendent and recessed pendent (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.