1. DESCRIPTION
The Viking MicromaticHP® Standard Response Pendent High Pressure VK122 Sprinkler is a small, thermosensitive, glass-bulb spray sprinkler available in several different finishes and temperature ratings to meet design requirements. The special Polyester, and Electroless Nickel PTFE (ENT) coatings can be used in decorative applications where colors are desired. In addition, these coatings have been investigated for installation in corrosive atmospheres and are listed/approved as corrosion resistant as indicated in the Approval Charts.
Viking standard response sprinklers may be ordered and/or used as open sprinklers (glass bulb and pip cap assembly removed) on deluge systems. Refer to Ordering Instructions.

2. LISTINGS AND APPROVALS

NOTE: Other International approval certificates are available upon request. Refer to Approval Chart 1 and UL Design Criteria for cULus Listing requirements that must be followed.

3. TECHNICAL DATA
Specifications:
Minimum Operating Pressure: 7 psi (0.5 bar)†
Maximum Working Pressure: 250 psi (17 bar) wwp
Factory tested hydrostatic rating: 500 psi (34.5 bar)
Thread size: 1/2" NPT, 15 mm BSP
Nominal K-Factor: 5.6 U.S. (80.6 metric**)
Glass-bulb fluid temperature rating: -65 °F (-55 °C)
Overall Length: 2-1/4" (58 mm)

† cULus Listing, FM Approval, and NFPA 13 installs require a minimum of 7 psi (0.5 bar).

Material Standards:
Frame Casting: Brass UNS-C84400
Deflector: Brass UNS-C26000
Bulb: Glass, nominal 5 mm diameter
Belleville Spring Sealing Assembly: Nickel Alloy, coated on both sides with PTFE Tape
Screw: Brass UNS-C36000
Pip Cap and Insert Assembly: Copper UNS-C11000 and Stainless Steel UNS-S30400
For ENT Coated Sprinklers: Belleville Spring - Exposed, Screw and Pipcap - ENT plated
For Polyester Coated Sprinklers: Belleville Spring-Exposed

Ordering Information:
Order MicromaticHP® Standard Response Pendent High Pressure Sprinkler VK122 by first adding the appropriate suffix for the sprinkler finish and then the appropriate suffix for the temperature rating to the sprinkler base part number.

Accessories:
Sprinkler Wrenches:
A. Standard Wrench: Part No. 21475M/B (available since 2017).
B. Socket Wrench for Recessed Pendent Sprinklers: Part No. 13655W/B* (available since 2006)
C. Optional Protective Sprinkler Cap Remover/Escutcheon Installer Tool** Part No. 15915 (available since 2010.)
D. Socket Wrench for Wax Coated Sprinklers: Part No. 13577W/B* (available since 2006)

“*A ½" ratchet is required (not available from Viking).”
Sprinkler Cabinets:
A. Six-head capacity: Part No. 01724A (available since 1971)
B. Twelve-head capacity: Part No. 01725A (available since 1971)

4. INSTALLATION
   Refer to appropriate NFPA Installation Standards.

5. OPERATION
   During fire conditions, the heat-sensitive liquid in the glass bulb expands, causing the glass to shatter, releasing the pip cap and sealing spring assembly. Water flowing through the sprinkler orifice strikes the sprinkler deflector, forming a uniform spray pattern to extinguish or control the fire.

6. INSPECTIONS, TESTS AND MAINTENANCE
   Refer to NFPA 25 for Inspection, Testing and Maintenance requirements.

7. AVAILABILITY
   The Viking MicromaticHP® Standard Response Pendent High Pressure Sprinkler VK122 is available through a network of domestic and international distributors. See The Viking Corporation web site for the closest distributor or contact The Viking Corporation.

8. GUARANTEE
   For details of warranty, refer to Viking’s current list price schedule or contact Viking directly.
TABLE 1: AVAILABLE SPRINKLER TEMPERATURE RATINGS AND FINISHES

<table>
<thead>
<tr>
<th>Sprinkler Temperature Classification</th>
<th>Sprinkler Nominal Temperature Rating¹</th>
<th>Maximum Ambient Ceiling Temperature²</th>
<th>Bulb Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ordinary</td>
<td>135 °F (57 °C)</td>
<td>100 °F (38 °C)</td>
<td>Orange</td>
</tr>
<tr>
<td>Ordinary</td>
<td>155 °F (68 °C)</td>
<td>100 °F (38 °C)</td>
<td>Red</td>
</tr>
<tr>
<td>Intermediate</td>
<td>175 °F (79 °C)</td>
<td>150 °F (65 °C)</td>
<td>Yellow</td>
</tr>
<tr>
<td>Intermediate</td>
<td>200 °F (93 °C)</td>
<td>150 °F (65 °C)</td>
<td>Green</td>
</tr>
<tr>
<td>High</td>
<td>286 °F (141 °C)</td>
<td>225 °F (107 °C)</td>
<td>Blue</td>
</tr>
<tr>
<td>Extra High</td>
<td>360 °F (182 °C)</td>
<td>300 °F (149 °C)</td>
<td>Mauve</td>
</tr>
<tr>
<td>Ultra High⁴</td>
<td>500 °F (260 °C)</td>
<td>465 °F (240 °C)</td>
<td>Black</td>
</tr>
</tbody>
</table>

Sprinkler Finishes: Brass, Chrome, White Polyester, Black Polyester, and ENT⁴
Corrosion-Resistant Coatings⁴: White Polyester, Black Polyester, and ENT in all temperature ratings except 135 °F (57 °C).

Footnotes

¹ The sprinkler temperature rating is stamped on the deflector.
² Based on NFPA-13. Other limits may apply, depending on fire loading, sprinkler location, and other requirements of the Authority Having Jurisdiction. Refer to specific installation standards.
³ Sprinklers of Ultra-High temperature rating are intended for use in ovens, dryers, or similar enclosures with normal operating temperatures above 300 °F (149 °C). Where the ambient temperature around the Ultra-High temperature rated sprinkler is significantly reduced below 300 °F (149 °C), the response time of the Ultra-High temperature rated sprinkler may be severely retarded.
⁴ The corrosion-resistant coatings have passed the standard corrosion test required by the approving agencies indicated in the Approval Charts. These tests do not represent all possible corrosive environments. Prior to installation, verify through the end-user that the coatings are compatible with or suitable for the proposed environment. For automatic sprinklers, the coatings indicated are applied to the exposed exterior surfaces only. Note that the spring is exposed on sprinklers with Polyester and ENT coatings. For ENT coated automatic sprinklers, the waterway is coated.

Figure 1: Standard Sprinkler Wrench 21475M/B
Approval Chart 1 (UL)

MicromaticHP® Standard Response Pendent Sprinkler VK122
Maximum 250 PSI (17 bar) WWP

<table>
<thead>
<tr>
<th>Sprinkler Base Part Number1</th>
<th>SIN</th>
<th>Thread Size Nominal K-Factor</th>
<th>Overall Length</th>
<th>Listings and Approvals3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>NPT</td>
<td>BSP</td>
<td>U.S.</td>
</tr>
<tr>
<td>09992 VK122</td>
<td>1/2”</td>
<td>15 mm</td>
<td>5.6</td>
<td>80.6</td>
</tr>
</tbody>
</table>

**Approved Temperature Ratings**

A - 135 °F (57 °C), 155 °F (68 °C), 175 °F (79 °C), 200 °F (93 °C), 286 °F (141 °C), 360 °F (182 °C),
B - 500 °F (260 °C)7

**Approved Finishes**

1 - Brass, Chrome, White Polyester6, and Black Polyester6
2 - Brass, Chrome
3 - ENT5

**Approved Escutcheons**

Y - Standard surface-mounted escutcheon or recessed with the Viking Micromatic® Model E-1, E-2, or E-3 Recessed Escutcheon

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**Footnotes**

1 Base part number is shown. For complete part number, refer to Viking’s current price schedule.
2 Metric K-factor shown is for use when pressure is measured in bar. When pressure is measured in kPa, divide the metric K-factor shown by 10.0.
3 This table shows the listings and approvals available at the time of printing. Check with the manufacturer for any additional approvals.
4 Listed by Underwriters Laboratories Inc. for use in the U.S. and Canada.
5 cULus Listed as corrosion resistant.
6 Other colors are available on request with the same Listings and Approvals as the standard colors.
7 Sprinklers of Ultra-High temperature rating are intended for use in ovens, dryers, or similar enclosures with normal operating temperatures above 300 °F (149 °C). Where the ambient temperature around the Ultra-High temperature rated sprinkler is significantly reduced below 300 °F (149 °C), the response time of the Ultra-High temperature rated sprinkler may be severely retarded.

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**DESIGN CRITERIA - UL**

(Also refer to Approval Chart 1.)

**cULus Listing Requirements:**

The Viking MicromaticHP® Standard Response Pendent Sprinkler VK122 is cULus Listed as indicated in Approval Chart 1 for installation in accordance with the latest edition of NFPA 13 for standard spray sprinklers.

- Designed for use in Light, Ordinary, and Extra Hazard occupancies.
- The sprinkler installation rules contained in NFPA 13 for standard spray pendent sprinklers must be followed.

**IMPORTANT:** Always refer to Bulletin Form No. F_091699 - Care and Handling of Sprinklers. Also refer to Form No. F_080614 for general care, installation, and maintenance information. Viking sprinklers are to be installed in accordance with the latest edition of Viking technical data, the appropriate standards of NFPA, LPCB, APSAD, VdS or other similar organizations, and also with the provisions of governmental codes, ordinances, and standards, whenever applicable.
Figure 2: Wrench 13655W/B for Recessed Pendent Sprinklers

** A 1/2 Inch ratchet is required (not available from Viking)

Figure 3: Sprinkler Dimensions with a Standard Escutcheon

1/2” (15 mm) NPT

2-1/4” (58 mm) Pendent Sprinkler

1-3/4” (45 mm) Installed with a standard 1/8” surface-mounted escutcheon

Ceiling opening size:
2-5/16” (59 mm) minimum
2-1/2” (64 mm) maximum
Figure 4: Sprinkler Dimensions with the Model E-1 and E-2 Recessed Escutcheons