



TECHNICAL DATA

MICROFAST® AND MicrofastHP® EC/QREC FUSIBLE ELEMENT PENDENT SPRINKLERS VK607 & VK611

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058

Telephone: 269-945-9501 Technical Services 877-384-5464 Fax: 269-818-1680 Email: techsvcs@vikingcorp.com

1. DESCRIPTION

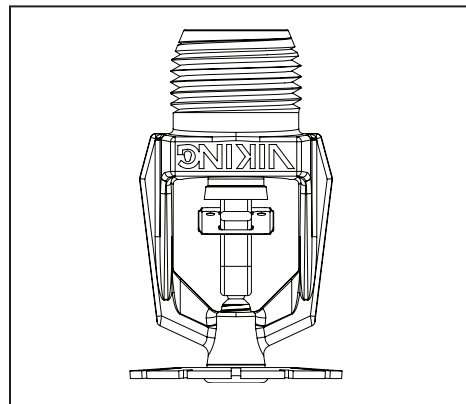
Viking Microfast® and MicrofastHP® EC/QREC Fusible Element Pendent Sprinklers VK607 and HP VK611 are small thermosensitive spray sprinklers available in several different finishes and temperature ratings to meet varying design requirements. These sprinklers have both standard response and quick response listings. The fast response type operating element and special deflector combine speed of operation and area of coverage to meet quick response extended coverage standards.

The special Polyester coating can be used in decorative applications where colors are desired.

2. LISTINGS AND APPROVALS

cULus Listed: Category VNIV

Refer to the Approval Chart on page 90x and Design Criteria on page 90y for cULus Listing requirements that must be followed.



For Light Hazard Occupancies Only

3. TECHNICAL DATA

Specifications:

Available since 2007.

Minimum Operating Pressure: Refer to the Approval Chart.

Maximum Working Pressure: Sprinkler VK611 is rated to a maximum 250 psi (17 bar) wwp for high-pressure systems. High-pressure (HP) sprinklers can be identified by locating "250" stamped on the deflector. Sprinkler VK607 is rated to a maximum 175 psi (12 bar) wwp.

Factory tested hydrostatically to 500 psi (34.5 bar).

Testing: U.S.A. Patent No. 4,831,870

Thread size: 1/2" (15 mm) NPT

Nominal K-Factor: 5.6 U.S. (80.6 metric†)

†Metric K-factor measurement shown is when pressure is measured in Bar. When pressure is measured in kPa, divide the metric K-factor shown by 10.0.

Overall Length: 2-1/4" (58 mm)

Material Standards:

Sprinkler Frame: Brass UNS-C84400

Deflector: Phosphor Bronze UNS-C51000

Fusible Element Assembly: Nickel Alloy

Trigger and Support: Stainless Steel UNS-S31600

Belleville Spring Sealing Assembly: Nickel Alloy, coated on both sides with Teflon Tape

Seat and Insert Assembly: Copper UNS-C11000 and Stainless Steel UNS-S30400

Screw: Brass UNS-C36000

For Polyester Coated Sprinklers: Belleville Spring-Exposed

Ordering Information: (Also refer to the current [Viking price list](#).)

Order Microfast® and MicrofastHP® EC/QREC Fusible Element Pendent Sprinklers VK607 and VK611 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.

Finish Suffix: Brass = A, Chrome-Enloy® = F, White Polyester = M-/W, and Black Polyester = M-/B

Temperature Suffix (°F/°C): 165°/74° = C and 205°/96° = E

For example, sprinkler VK607 with a Brass finish and a 165 °F/74 °C temperature rating = Part No. 13970AC

Available Finishes And Temperature Ratings:

Refer to Table 1

Viking Technical Data may be found on
The Viking Corporation's Web site at
<http://www.vikinggroupinc.com>.
The Web site may include a more recent
edition of this Technical Data Page.

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Accessories: (Also refer to the “Sprinkler Accessories” section of the Viking data book.)

Sprinkler Wrenches:

- A. Standard Wrench: Part No. 10896W/B (available since 2000)
- B. Wrench for recessed pendent 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 fusible element assembly disengages, releasing the seat and spring assemblies to open the waterway. 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

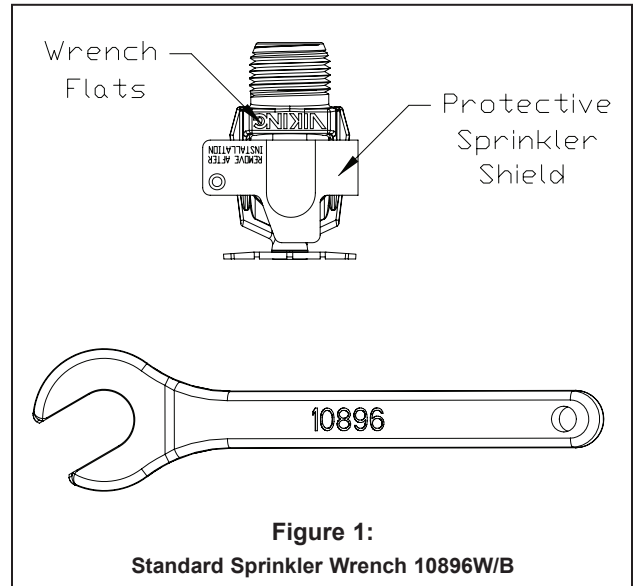
Refer to NFPA 25 for Inspection, Testing and Maintenance requirements.

7. AVAILABILITY

The Viking Model VK607 and VK611 Sprinklers are 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.



**Figure 1:
Standard Sprinkler Wrench 10896W/B**

TABLE 1: AVAILABLE SPRINKLER TEMPERATURE RATINGS AND FINISHES

Sprinkler Temperature Classification	Sprinkler Nominal Temperature Rating ¹	Maximum Ambient Ceiling Temperature ²	Frame Paint Color
Ordinary	165 °F (74 °C)	100 °F (38 °C)	None
Intermediate	205 °F (96 °C)	150 °F (65 °C)	White


Sprinkler Finishes: Brass, Chrome-Enloy®³, White Polyester³, and Black Polyester³

Footnotes

- ¹ The 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 For automatic sprinklers, the coatings indicated are applied to the exposed exterior surfaces only. Note that the spring is exposed on sprinklers with Polyester coatings.

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Approval Chart													
Microfast® and MicrofastHP® EC/QREC Fusible Element Pendent Sprinklers VK607 and VK611 For Light Hazard Occupancies Only.													
Sprinkler Base Part Number ¹	SIN	Max. Pressure	NPT Thread Size		Nominal K-Factor		Maximum Areas of Coverage ⁶	Minimum Water Supply Requirements ⁶ Flow/Pressure	Listings and Approvals ³ (Refer also to Design Criteria on page 90y.)				
			Inches	mm	U.S.	metric ²			cULus ⁴	FM	NYC	CE	
Standard Response Applications⁵ Maximum 175 PSI (12 Bar) WWP													
13970	VK607	175 psi	1/2	15	5.6	80.6	18' x 18' (5.5 m x 5.5 m)	33 gpm @ 34.7 psi (124.9 L/min @ 2.4 Bar)	B1Z	--	--	--	--
13970	VK607	175 psi	1/2	15	5.6	80.6	20' x 20' (6.1 m x 6.1 m)	40 gpm @ 51.0 psi (151.4 L/min @ 3.52 Bar)	B1Z, C1Z	--	--	--	--
Quick Response Applications Maximum 175 PSI WWP													
13970	VK607	175 psi	1/2	15	5.6	80.6	16' x 16' (4.9 m x 4.9 m)	26 gpm @ 21.6 psi (98.4 L/min @ 1.49 Bar)	A1X	--	--	--	--
13970	VK607	175 psi	1/2	15	5.6	80.6	18' x 18' (5.5 m x 5.5 m)	33 gpm @ 34.7 psi (124.9 L/min @ 2.4 Bar)	A1Y, C1X	--	--	--	--
13970	VK607	175 psi	1/2	15	5.6	80.6	20' x 20' (6.1 m x 6.1 m)	40 gpm @ 51.0 psi (151.4 L/min @ 3.52 Bar)	C1Y	--	--	--	--
Standard Response Applications⁵ Maximum 250 PSI WWP													
13972	VK611	250 psi	1/2	15	5.6	80.6	18' x 18' (5.5 m x 5.5 m)	33 gpm @ 34.7 psi (124.9 L/min @ 2.4 Bar)	B1Z	--	--	--	--
13972	VK611	250 psi	1/2	15	5.6	80.6	20' x 20' (6.1 m x 6.1 m)	40 gpm @ 51.0 psi (151.4 L/min @ 3.52 Bar)	B1X, C1Z	--	--	--	--
Quick Response Applications Maximum 250 PSI WWP													
13972	VK611	250 psi	1/2	15	5.6	80.6	16' x 16' (4.9 m x 4.9 m)	26 gpm @ 21.6 psi (98.4 L/min @ 1.49 Bar)	A1X	--	--	--	--
13972	VK611	250 psi	1/2	15	5.6	80.6	18' x 18' (5.5 m x 5.5 m)	33 gpm @ 34.7 psi (124.9 L/min @ 2.39 Bar)	A1Y, C1X	--	--	--	--
13972	VK611	250 psi	1/2	15	5.6	80.6	20' x 20' (6.1 m x 6.1 m)	40 gpm @ 51.0 psi (151.4 L/min @ 3.52 Bar)	C1Y	--	--	--	--
Approved Temperature Ratings A - 165 °F (74 °C) and 205 °F (96 °C) B - 165 °F (74 °C) C - 205 °F (96 °C)			Approved Finishes 1 - Brass, Chrome-Enloy®, White Polyester, and Black Polyester				Approved Escutcheons X - Installed with standard surface-mounted escutcheons or the Viking Microfast® Model F-1 Adjustable Escutcheon ⁷ , or recessed with the Viking Micromatic® Model E-1 or E-2 Recessed Escutcheon Y - Installed with standard surface-mounted escutcheons or the Viking Microfast® Model F-1 Adjustable Escutcheon ⁷ Z - Recessed with the Viking Micromatic® Model E-1 or E-2 Recessed Escutcheon						

Footnotes

- ¹ Base part number is shown. For complete part number, refer to current Viking price list schedule.
- ² Metric K-factor shown is for use when pressure is measured in kPa. When pressure is measured in bar, multiply the metric K-factor by 10.0.
- ³ This chart shows listings and approvals available at time of printing. Check with the manufacturer for any additional approvals.
- ⁴ Listed by Underwriter's Laboratories, Inc. for use in Canada.
- ⁵ Listings and Approvals are limited to Light Hazard Occupancies where allowed by the installation standards being applied.
- ⁶ For areas of coverage smaller than shown, use the "Minimum Water Supply Requirement" for the next larger listed area of coverage with sprinklers of similar K-Factor.
- ⁷ The Microfast® Model F-1 Adjustable Escutcheon is considered a surface-mounted escutcheon because it does not allow the fusible element of the sprinkler to be recessed behind the face of the wall or ceiling.

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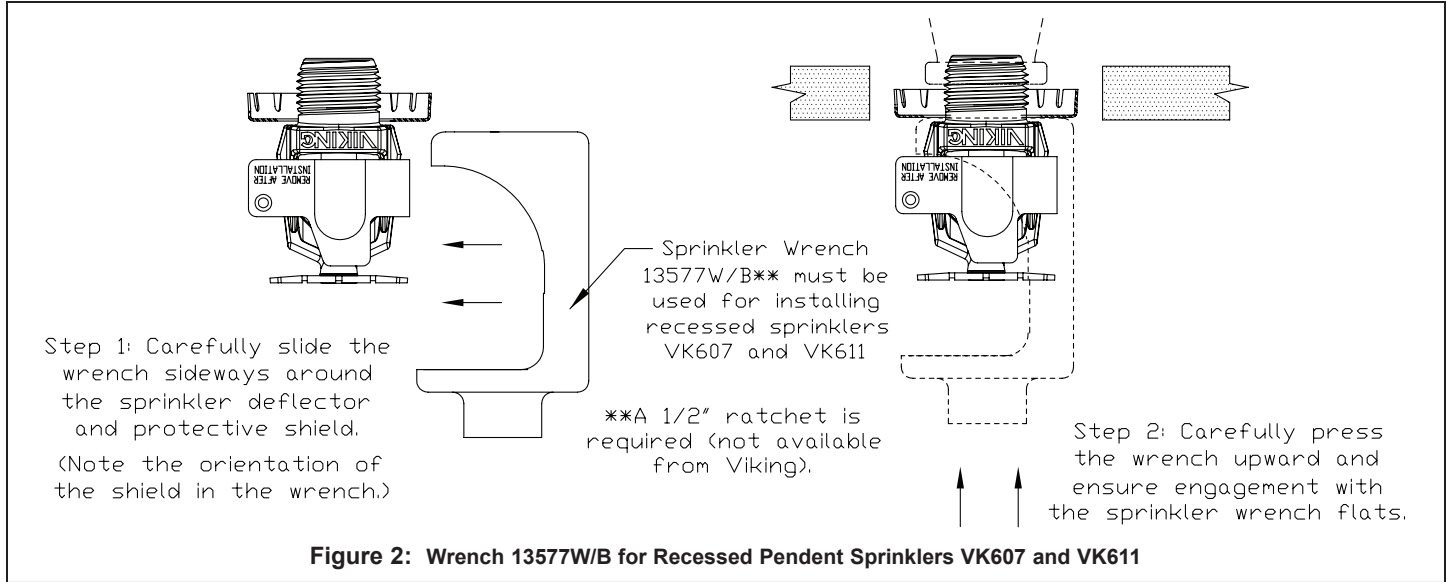
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DESIGN CRITERIA
 (Also refer to the Approval Chart on page 90x.)

cULus Listing Requirements: Microfast® and MicrofastHP® EC/QREC Pendent Sprinkler VK607 and HP VK611 are cULus Listed as indicated in the Approval Chart for installation in accordance with the latest edition of NFPA 13 for extended coverage pendent spray sprinklers:

- Limited to Light Hazard occupancies, where allowed by the installation standards being applied, with smooth, flat, horizontal ceilings only.
- Minimum spacing allowed is 8 ft. (2.4 m) unless baffles are installed in accordance with NFPA 13.
- Minimum distance from walls is 4 in. (102 mm).
- Maximum distance from walls shall be no more than one-half of the allowable distance between sprinklers. The distance shall be measured perpendicular to the wall.
- The sprinkler installation and obstruction rules contained in NFPA 13 for extended coverage pendent spray sprinklers must be followed.

IMPORTANT: Always refer to Bulletin Form No. F_091699 - Care and Handling of Sprinklers. Also refer to pages EC1-3 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, FM Global, LPCB, APSAD, VdS or other similar organizations, and also with the provisions of governmental codes, ordinances, and standards, whenever applicable.



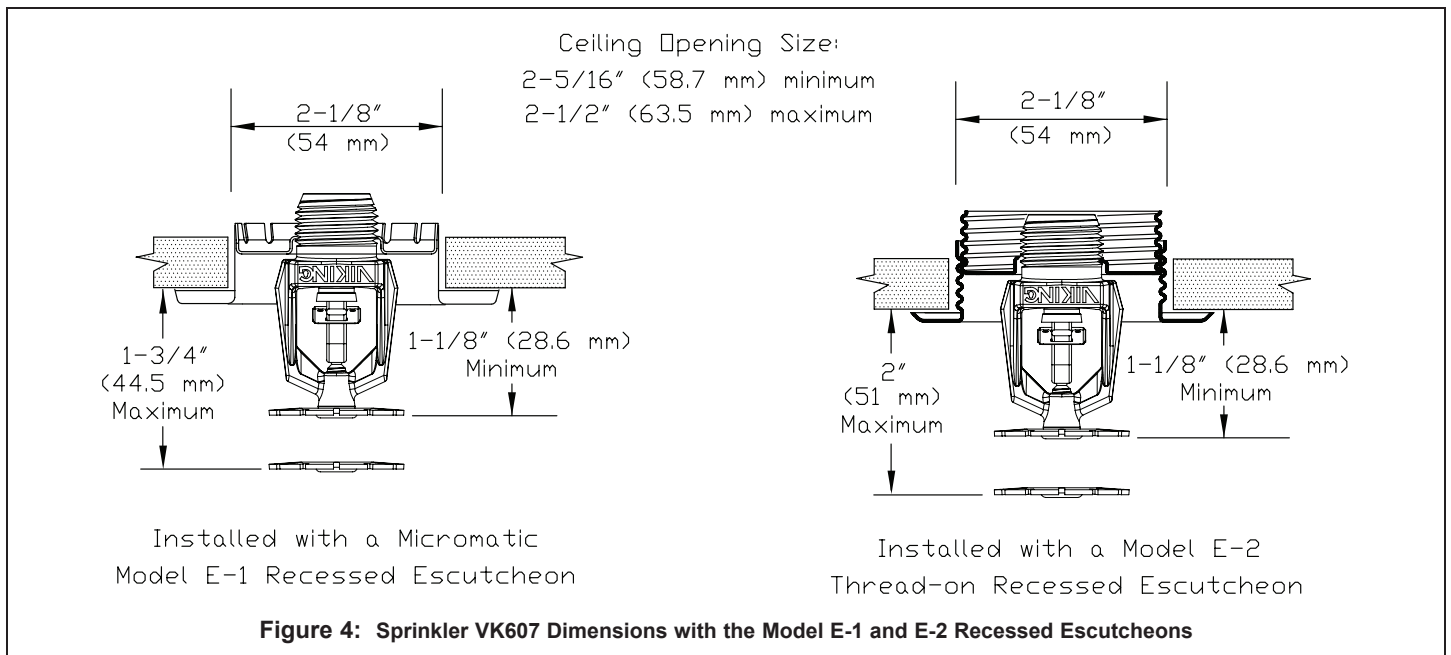
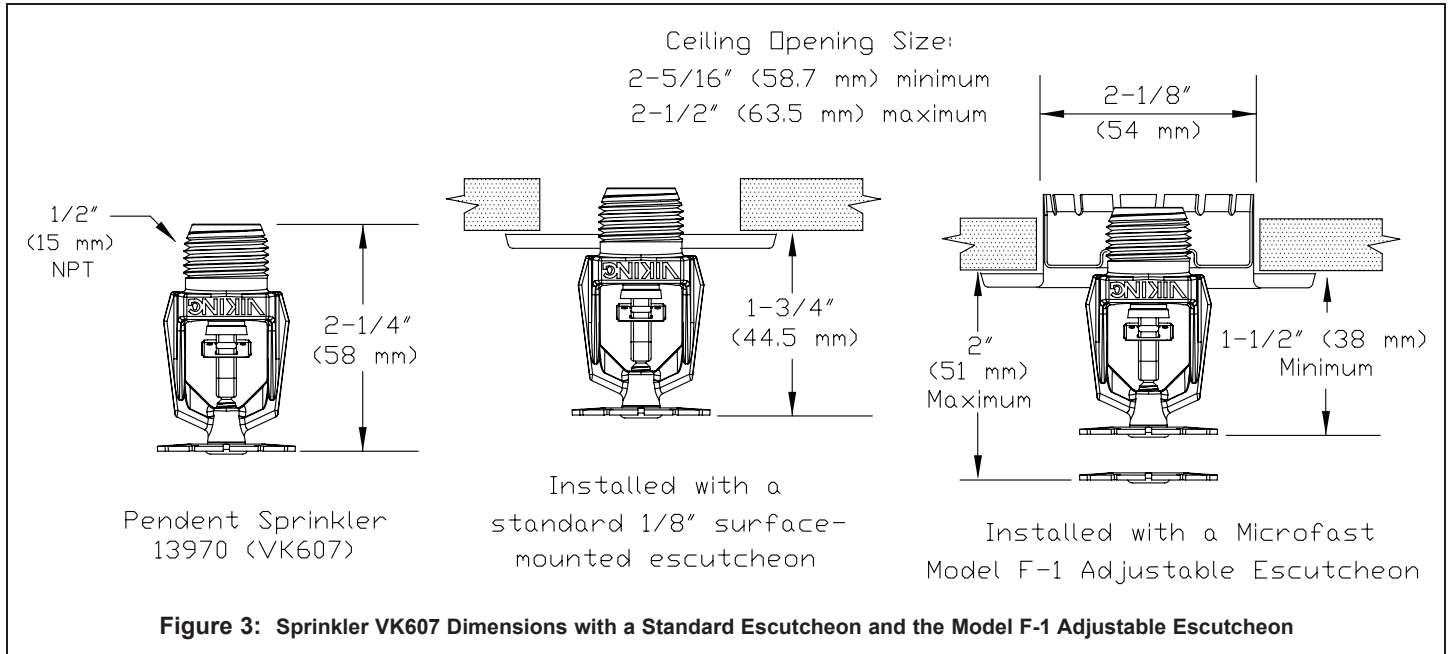


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