



TECHNICAL DATA

MICROMATIC® STANDARD RESPONSE VERTICAL SIDEWALL SPRINKLERS



For Light Hazard Occupancies Only

1. PRODUCT NAME

Viking Micromatic® Standard Response Vertical Sidewall Sprinklers

- Sprinkler Base Part No. 09127
- Sprinkler Base Part No. 10186 (Sprinkler Identification No. VK106†)
- Sprinkler Base Part No. 10226 (Sprinkler Identification No. VK106†)

†The Sprinkler Identification Number (SIN) is stamped on the sprinkler deflector.

2. MANUFACTURER

THE VIKING CORPORATION
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3. PRODUCT DESCRIPTION

Viking Micromatic® Standard Response Vertical Sidewall Sprinklers are small thermosensitive sprinklers designed for installation in either the upright or pendent position. They are available with various finishes and temperature ratings to meet design requirements. The special Polyester and Teflon® coatings can be used in decorative applications where colors are desired. In addition, these finishes are corrosion resistant and provide protection against many corrosive environments.

During fire conditions, the heat-sensitive liquid in the glass bulb expands, causing the bulb 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.

Viking Micromatic® Standard Response Sprinklers may be ordered and/or used as open sprinklers (glass bulb and pip-cap assembly removed) on deluge systems.

4. TECHNICAL DATA

LISTINGS AND APPROVALS

Refer to the Approval Chart on pg 14 b. Glass-bulb fluid temperature rated to -65° F (-55° C).

Min. operating pressure: 7 psi (48,3 kPa)
 Rated to 175 psi (1 207 kPa) water working pressure.

Factory tested hydrostatically to 500 psi (3 448 kPa).

SPRINKLER MATERIALS

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 Teflon Tape

Screw: Brass UNS-C36000

Pip Cap and Insert Assembly: Copper UNS-C11000 and Stainless Steel UNS-S30400

Polyester Coated Sprinklers:

Belleville Spring: Nickel Alloy, Exposed

Teflon® Coated Sprinklers:

Belleville Spring: Nickel Alloy, Exposed

Screw: Nickel Plated

Pip Cap: Teflon® Coated

AVAILABLE FINISHES

Brass, Chrome-Enloy®, White Polyester, Black Polyester, and Black Teflon® in all temperature ratings; Wax-Coated Brass or Wax Over Polyester for sprinklers with temperature ratings through 286 °F (141 °C).

5. ACCESSORIES (order separately)

Sprinkler Cabinets:

A. Six-head capacity: Part No. 01724A

B. Twelve-head capacity: Part No. 01725A

Available since 1971.

Sprinkler Wrenches:

A. Standard Wrench: Part No. 10896WB (available since 2000) or Part No. 05000CW/B (no longer available). Standard wrench is also to be used for wax coated sprinklers.

B. Wrench for Polyester and Teflon® coated and recessed sprinklers: Part No. 07398W* (available since 1990).

* A ½" ratchet is required (not available from Viking).

Refer to the "Sprinkler Accessories" section of the Viking data book.

Sprinkler Temperature Classification	Sprinkler Nominal Temperature Rating ¹	Maximum Ambient Ceiling Temperature ²	Bulb Color ¹
Ordinary	155 °F (68 °C)	100 °F (38 °C)	Red
Intermediate	175 °F (79 °C)	150 °F (65 °C)	Yellow
Intermediate	200 °F (93 °C)	150 °F (65 °C)	Green
Intermediate	212 °F (100 °C)	150 °F (65 °C)	Green
High	286 °F (141 °C)	225 °F (107 °C)	Blue
Extra High	360 °F (182 °C)	300 °F (149 °C)	Mauve

Sprinkler Finishes: Brass, Chrome-Enloy® (patents pending), White Polyester, Black Polyester, and Black Teflon®

Corrosion-Resistant Coatings³: White Polyester, Black Polyester, and Black Teflon® in all temperature ratings. Wax-Coated Brass and Wax over Polyester for sprinklers with the following temperature ratings:
 155 °F (68 °C) Lt. Brown Wax 200 °F (93 °C) Brown Wax 286 °F (141 °C) Dk. Brown Wax
 175 °F (79 °C) Brown Wax 212 °F (100 °C) Brown Wax

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 The corrosion-resistant coatings have passed the standard corrosion test required by the approving agencies indicated (refer to the Approval Chart on page 14 b). These tests cannot and 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: The spring is exposed on sprinklers with Polyester and Teflon® coatings. For Teflon® coated open sprinklers only, the waterway is coated.

Table 1

Note: Units of measure in parentheses may be approximations. Form No. F_072198

Replaces page 14 a-b, dated August 5, 2005 (updated the approval chart). Refer to technical data page SR1-2 for general care, installation, and maintenance information.

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Approval Chart Micromatic® Standard Response Vertical Sidewall Sprinklers For Light Hazard Occupancies Only														
Base Part Number ¹	SIN	Sprinkler Style	Thread Size		Maximum Pressure	Nominal K-Factor		Overall Length		Listings and Approvals ³				
			NPT	BSP		U.S.	metric ²	Inches	mm	cULus	FM ⁴	NYC	VdS	LPCB
Standard Orifice														
10226	VK106	VSW U/P	1/2"	15 mm	175 psi	5.6	8,1	2-1/4	58	--	A1X	--	--	--
10186 ⁵	VK106	VSW U/P	--	15 mm	175 psi	5.6	8,1	2-1/4	58	--	A1X	--	--	--
Small Orifice														
09127	VK018	VSW U/P	3/8"	10 mm	175 psi	4.2	6,0	2-1/4	58	--	--	--	--	--
Approved Temperature Ratings A - 155 °F (68 °C), 175 °F (79 °C), 200 °F (93 °C), 286 °F (141°C)						Approved Finishes 1 - Brass and Chrome-Enloy®				Approved Escutcheons X - Installed with standard surface-mounted escutcheons or the Viking Microfast® Model F-1 Adjustable Escutcheon ⁶				
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 kPa. When pressure is measured in BAR, multiply the metric K-Factor shown by 10.0. ³ This chart shows the listings and approvals available at the time of printing. Other approvals may be in process. Check with the manufacturer for any additional approvals. ⁴ FM Approval is limited to Light-Hazard Occupancies where allowed by the installation standards being applied. Locate vertical sidewall sprinklers with deflector 4" to 6" (102 mm to 152 mm) below the ceiling, and 4" to 6" (102 mm to 152 mm) from walls. Exception: Vertical sidewall sprinklers may be installed with the deflector located less than 4" (102 mm) from the wall on which they are installed. Viking vertical sidewall sprinklers may be installed pendent or upright. ⁵ Sprinkler 10186 is available on special order. ⁶ The Viking 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.														

