

# VIKING

## TECHNICAL DATA

**MICROFAST® MODEL M  
RESIDENTIAL  
PENDENT SPRINKLER**

### 1. PRODUCT NAME

VIKING Microfast® MODEL M,  
Residential Pendent Sprinkler

### 2. MANUFACTURER

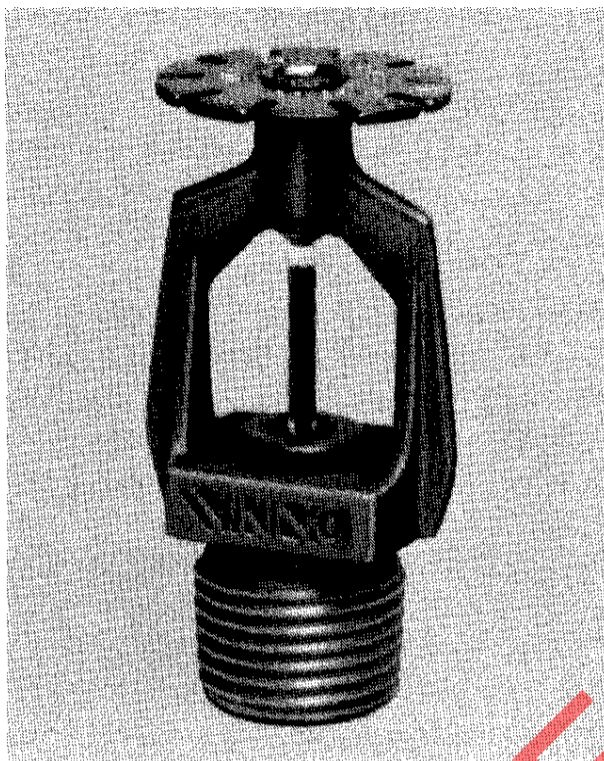
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### 3. PRODUCT DESCRIPTION

The Viking Microfast® Model M Residential Pendent Sprinkler is a small high sensitivity glass-bulb spray sprinkler. The sprinkler is available in several finishes and temperature ratings to meet design requirements. The small rugged 2.8mm glass-bulb and special deflector combine speed of operation and area of coverage to meet the residential sprinkler standards. 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. The water flowing through the sprinkler orifice strikes the sprinkler deflector forming a uniform spray pattern to extinguish or control the fire.

### 4. TECHNICAL DATA

UL Listed Residential Sprinkler  
Glass Bulb Fluid Temperature rated to -65°F (-55°C).  
Rated to 175 PSI (1207 kPa) water working pressure.  
Factory tested hydrostatically to 500 PSI (3448 kPa).  
See Chart for minimum water supply requirements and maximum area of coverage.  
Spring - USA Patent No. 4,167,974.  
Bulb - Patent Pending.  
Thread Size - 1/2" (15mm) NPT  
Orifice Size - Nominal 1/2" (15mm).  
K Factor - Nominal 5.5 (79 metric)  
**Materials:**  
Frame-Brass Castings UNS-C84400 (ASTM B145 Class 5A)  
Deflector - Copper UNS-C26000.  
Bulb-Glass Nominal 2.8mm diameter.  
Seal-Teflon® Tape  
Spring-Nickel Alloy  
Screw-Brass UNS-C36000  
Pip Cap-Copper UNS-C11000



### 5. AVAILABILITY AND SERVICE

Viking sprinklers are available through a network of domestic, Canadian, and international distributors, see the Yellow Pages of the telephone directory (listed under "Sprinklers Automatic Fire") or write to The Viking Corporation.

### 6. GUARANTEES

Viking agrees to repair or replace goods found to be defective in material and workmanship for a period of one year from the date of shipment. For details of warranty, refer to price list.

### 7. INSTALLATION

**WARNING:** Viking sprinklers are manufactured and tested to meet the rigid requirements of the approving agency. The sprinklers are designed to

be installed in accordance with recognized installation standards. Deviation from the standards or any alteration to the sprinkler after it leaves the factory including, but not limited to, painting, plating, coating or modification, may render the sprinkler inoperative and will automatically nullify the approval and any guarantee made by The Viking Corporation.

A. Sprinklers are to be installed in accordance with the latest published standards of the National Fire Protection Association, Factory Mutual, Loss Prevention Council (F.O.C.), Assemblee Pleniere, Verband der Sachversicherer or other similar organizations and also with the provisions of governmental codes, ordinances and standards whenever applicable. The Use of residential sprinklers may be limited due to occupancy and hazard. Refer to the Authority Having Jurisdiction prior to installation.

B. The sprinklers must be installed after the piping is in place to prevent mechanical damage. Before installing, make sure the appropriate model, style, orifice size and temperature rating is used. Apply a small amount of pipe joint compound or tape to the male threads only, taking care not to allow a build up of compound in the sprinkler orifice. Install the sprinkler on the piping using the special sprinkler wrench only, while taking care not to damage the sprinkler operating parts.

### RESIDENTIAL INSTALLATION DATA

Maximum Area of Coverage	Minimum Water Supply Requirements		Bulb Color	Frame Paint Color	
	Single Sprinkler	Two or More			
14' x 14' 4.3M x 4.3M	28 GPM @ 25.9 PSI 106 L/Min. @ 1.8 BAR	20 GPM @ 13.2 PSI 75.7 L/Min. @ 0.9 BAR	Orange	None	
Sprinkler Temperature Classification	Nominal Sprinkler Temperature Rating (Fusing Point)	Ceiling Temperature at Sprinkler		Bulb Color	Frame Paint Color
		Max. Ambient Temp. Allowed <sup>1</sup>	Max. Recommend. Ambient Temp. <sup>2</sup>		
Ordinary	135°F(57°C)	115°F(46°C)	100°F(38°C)	Orange	None
Ordinary	155°F(68°C)	135°F(57°C)	100°F(38°C)	Red	None

Sprinkler Finishes: Brass, Bright Brass, Polished Chrome, White(Paint) and Navajo White(Paint).

<sup>1</sup>Based on National Fire Prevention and Control Administration Contract No. 7-34860.

<sup>2</sup>Based on NFPA-13. Other limits may apply depending on fire loading, sprinkler location and other Authority Having Jurisdiction requirements. Refer to specific installation standards.

<sup>3</sup>Refer to Sprinkler Accessories for approved escutcheons and other accessories.

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MICROFAST<sup>®</sup> MODEL M  
RESIDENTIAL  
PENDENT SPRINKLER

- C. Sprinklers must be handled with care. They must be stored in a cool, dry place in their original shipping container. Never install sprinklers that have been dropped or damaged in any way. Never install any glass bulb sprinkler if the bulb is cracked or if there is a loss of liquid from the bulb. Never install sprinklers which have been exposed to temperatures in excess of max. ambient allowed. (These sprinklers should be destroyed immediately.)
- D. Corrosion resistant sprinklers must be installed when subject to corrosive atmospheres. When installing corrosion resistant sprinklers, care must be taken not to damage the corrosion resistant coating. (Any other type of wrench may damage the unit.) DO NOT use the sprinkler deflector to start or thread the sprinkler into a fitting.
- E. Sprinklers subject to mechanical damage must be protected with an approved sprinkler guard. Sprinklers installed on wet pipe systems must be provided with adequate heat.
- F. After installation, the entire sprinkler system must be tested in accordance with the recognized installation standards. The test is applied after the sprinkler installation to insure no damage has occurred to the sprinkler during shipping and installation, and to make sure the unit has been properly tightened.

### 8. MAINTENANCE

**NOTICE:** 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 National Fire Protection Association Pamphlet number 13A, "Care and Maintenance of Sprinkler System". In addition, the "Authority Having Jurisdiction" may have additional maintenance, testing and inspection requirements which must be followed.

- A. The Sprinklers must be inspected on a regular basis for corrosion, mechanical damage, obstructions, paint, etc. The frequency of the inspections may vary due to corrosive atmospheres, water supplies and activity around the device.
- B. Sprinklers that have been field painted or mechanically damaged must be replaced immediately. Sprinklers showing signs of corrosion shall be tested and/or replaced immediately as required. Sprinklers that are 20 years old shall be tested and/or replaced immediately as required. Sprinklers that have operated cannot be reassembled or reused, but must be replaced.
- C. The sprinkler discharge pattern is critical for proper fire protection, therefore, nothing should be hung from, attached to, or otherwise obstruct the discharge pattern. All obstructions must be immediately

removed or, if necessary, additional sprinklers installed.

- D. When replacing existing sprinklers, the system must be removed from service. Refer to the appropriate system description and/or valve instructions. Prior to removing the system from service, notify all Authorities Having Jurisdiction. Consideration should be given to employment of a fire patrol in the affected area.
1. Remove the system from service, draining all water and relieving all pressure on the piping.
  2. Using the special sprinkler wrench, remove the old sprinkler and install the new unit. Care must be taken to replace the sprinkler with the proper model, style, orifice size and temperature rating. A fully stocked spare sprinkler cabinet should be provided for this purpose.
  3. Place the system back in service and secure all valves. Check and repair all leaks.
- E. Sprinkler systems that have been subject to a fire must be returned to service as soon as possible. The entire system must be inspected for damage and repaired or replaced as necessary. Sprinklers that have been exposed to corrosive products of combustion or high ambient temperatures, but have not operated, should be replaced. Refer to the Authority Having Jurisdiction for minimum replacement requirements.