

FireLock® V49, K22.4

Model V4996 Early Suppression Fast Response (ESFR)



1.0 PRODUCT DESCRIPTION

Style: Pendent

Nominal Orifice Size: 1"/25 mm

Nominal Connection Size: 1" NPT/25mm BSPT/IGS Grooved, reference [publication 10.65](#).

K-Factor: 22.4 Imp./32.0 S.I.¹

Maximum Operating Pressure: Up to 175 psi/1200 kPa/12 bar

Factory Hydrostatic Test: 100% @ 500 psi/3450 kPa/34 bar

Minimum Working Pressure: As per local codes and commodity requirements.

Temperature Rating: See "Approved Temperature Ratings F°/C°" table in section 2.0

Application: See "Commodity Selection and Design Criteria Overview" table in section 2.0

Codes and Requirements: For coverage area and sprinkler placement, refer to NFPA 13, or any applicable local requirements

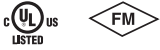
¹ For K-Factor when pressure is measured in Bar, multiply S.I. units by 10.

ALWAYS REFER TO ANY NOTIFICATIONS AT THE END OF THIS DOCUMENT REGARDING PRODUCT INSTALLATION, MAINTENANCE OR SUPPORT.

System No.		Location	
Submitted By		Date	

Spec Section		Paragraph	
Approved		Date	

2.0 CERTIFICATION/LISTINGS



APPROVALS/LISTINGS			
Model	V4996		
Nominal K Factor Imperial	22.4		
Nominal K Factor S.I.²	32.0		
Response	Fast		
Deflector Type	Pendent		
Agency	Approved Temperature Ratings F°/C°	Maximum Exposure Temperature F°/C°	Marking Color
cULus, FM	165/73	100/38	Uncolored/Black
cULus & UL Spec App, FM	212/100	150/65	White

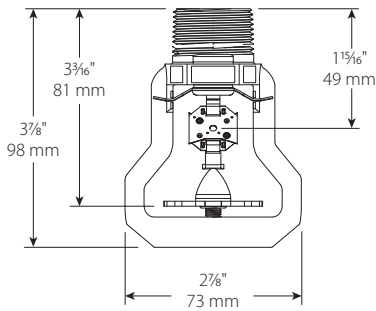
² For K-Factor when pressure is measured in Bar, multiply S.I. units by 10.

3.0 SPECIFICATIONS – MATERIAL

- Frame:** Cast brass
- Deflector:** Brass
- Compression Screw:** Stainless steel
- Hook:** Monel
- Strut:** Monel
- Link Assembly:** Nickel
- Button:** Brass
- Sealing Assembly:** Beryllium Nickel with PTFE
- Sprinkler Finishes:** Plain Brass

4.0 DIMENSIONS

Model V4996







5.0 PERFORMANCE

COMMODITY SELECTION AND DESIGN CRITERIA OVERVIEW FOR MODEL V4996 ESFR		
Description	NFPA	FM Global
Sprinkler Type	ESFR	Storage
Response Type	ESFR	Quick Response
System Type	Wet	Wet
Temperature Rating °F/°C	165, 212/74, 100	165, 212/74, 100
Roof Construction	See NFPA 13	See FM Global 2-0
Ceiling Slope	See NFPA 13	See FM Global 2-0
Maximum Coverage Area	See NFPA 13	See FM Global 2-0
Minimum Coverage Area	See NFPA 13	See FM Global 2-0
Maximum Spacing	See NFPA 13	See FM Global 2-0
Minimum Spacing	See NFPA 13	See FM Global 2-0
Minimum Clearance to Commodity	See NFPA 13	See FM Global 2-0
Sprinkler Distance to Ceiling	See NFPA 13	See FM Global 2-0
Open Frame, Single, Double, Multiple Row, or Portable Rack Storage of Class I-IV, Cartoned Unexp. Plastics	See NFPA 13	See FM 2-0 & 8-9
Solid Pile or Palletized Storage of Class I – IV and Cartoned Unexp. Plastics	See NFPA 13	See FM 2-0 & 8-9
Idle Pallet Storage	See NFPA 13	See FM 2-0 & 8-9, 8-24
Rubber Tire Storage	See NFPA 13	See FM 2-0 & 8-3
Rolled Paper Storage	See NFPA 13	See FM 8-21
Flammable Liquid Storage	See NFPA 30B	See FM 7-29
Aerosol Storage	See NFPA 30B	See FM 7-31
Auto Components in Portable Racks	N/A	N/A

5.0 PERFORMANCE (CONTINUED)

COMMODITY SELECTION AND DESIGN CRITERIA OVERVIEW FOR MODEL V4996 ESFR	
Description	UL, Specific Application Criteria
Sprinkler Type	ESFR
Temperature Rating °F/°C	212/100
Response Type	ESFR
System Type	Wet
Maximum Area of Coverage	See NFPA 13
Minimum Area of Coverage	See NFPA 13
Maximum Slope Ceiling	See NFPA 13
Maximum Spacing	See NFPA 13
Minimum Spacing	See NFPA 13
Deflector Distance from Walls	See NFPA 13
Deflector to Top of Storage	See NFPA 13
Deflector to Ceiling Distance	6 - 14"/150 - 350 mm
Maximum Ceiling Height	48 ft./14.6 m
Maximum Storage Height	43 ft./13.1 m
Storage Arrangement	Single and double row rack storage, palletized and solid pile storage. No open top containers or solid shelves.
Commodity	Class I-IV commodities, encapsulated or nonencapsulated, and Cartoned Group A Unexpanded plastics
Sprinkler System Design	55 psi/3.8 bar design pressure, 12 sprinklers in remote area
Obstruction Criteria	See NFPA 13
Minimum Aisle Width	8 ft./2.4 m
Hose Stream Allowance	See NFPA 13

6.0 NOTIFICATIONS

 WARNING	
  	<ul style="list-style-type: none"> • 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. <p>Failure to follow these instructions could result in serious personal injury and/or property damage.</p> <p>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.</p> <p>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.</p>

7.0 REFERENCE MATERIALS

- [10.65: FireLock IGS Installation-Ready Style V9 Sprinkler Coupling](#)
- [25.14: Victaulic IGS Groove Specifications](#)
- [I-40: Victaulic FireLock Automatic Sprinklers Installation and Maintenance Guide](#)
- [I-V9: Style V9 Victaulic FireLock™ IGS™ Installation-Ready™ Sprinkler Coupling](#)

User Responsibility for Product Selection and Suitability

Each user bears final responsibility for making a determination as to the suitability of Victaulic products for a particular end-use application, in accordance with industry standards and project specifications, and the applicable building codes and related regulations as well as Victaulic performance, maintenance, safety, and warning instructions. Nothing in this or any other document, nor any verbal recommendation, advice, or opinion from any Victaulic employee, shall be deemed to alter, vary, supersede, or waive any provision of Victaulic Company's standard conditions of sale, installation guide, or this disclaimer.

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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.

Installation

Reference should always be made to the Victaulic installation handbook or installation instructions of the product you are installing. Handbooks are included with each shipment of Victaulic products, providing complete installation and assembly data, and are available in PDF format on our website at www.victaulic.com.

Warranty

Refer to the Warranty section of the current Price List or contact Victaulic for details.

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