

# FireLock® V47, K16.8

## Model V4702 Early Suppression Fast Response (ESFR)



40.89



Pendent Sprinkler V4702



Grooved

### 1.0 PRODUCT DESCRIPTION

**Style:** Pendent

**Nominal Orifice Size:** 3/4"/20 mm

**Nominal Connection Size:** 3/4" NPT/ 20mm BSPT/ IGS Grooved, reference publication [publication 10.65](#).

**K-Factor:** 16.8 Imp./24.25 S.I. <sup>1</sup>

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

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

**Minimum Working Pressure:** Application specific

**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, FM Datasheets, or any applicable local requirements

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

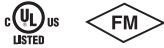
ALWAYS REFER TO ANY NOTIFICATIONS AT THE END OF THIS DOCUMENT REGARDING PRODUCT INSTALLATION, MAINTENANCE OR SUPPORT.

System No.		Location	
Submitted By		Date	

Spec Section		Paragraph	
Approved		Date	



## 2.0 CERTIFICATION/LISTINGS



APPROVALS/LISTINGS	Model V4702		
Orifice Size (inches)	¾		
Orifice Size (mm)	20		
Nominal K Factor Imperial	16.8		
Nominal K Factor S.I. <sup>1</sup>	24.25		
Response	Quick		
Deflector Type	Pendent		
Agency	Approved Temperature Ratings F° C°	Maximum Exposure Temperature F° C°	Bulb Colour
cULus/FM	155/68	100/38	Red
	200/93	150/65	Green

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

**NOTE:**

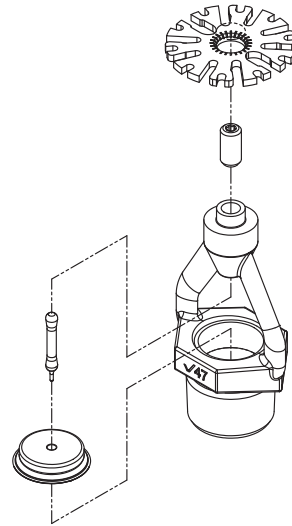
- All glass bulbs are rated for temperatures from -67°F/-57°C up to those shown in table above.

COMMODITY SELECTION AND DESIGN CRITERIA OVERVIEW FOR MODEL V4702		
Storage Type	NFPA	FM
Open Frame (that is, no solid shelves) Single, Double, Multiple-Row, or Portable Rack Storage of Class I-IV and Group A or B Plastics	NFPA 13	Refer to FM 2-0 and 8-9.
Solid Pile or Palletized Storage of Class I-IV and Group A or B Plastics	NFPA 13	Refer to FM 2-0 and 8-9.
Idle Pallet Storage	NFPA 13	Refer to FM 2-0, 8-9 and 8-24.
Rubber Tire Storage	NFPA 13	Refer to FM 2-0 and 8-3.
Rolled Paper Storage (Refer to the standard.)	NFPA 13	Refer to FM 2-0 and 8-21.
Flammable Liquid Storage (Refer to the standard.)	NFPA 30	Refer to FM 2-0 and 7-29.
Aerosol Storage (Refer to the standard.)	NFPA 30B	Refer to FM 2-0 and 7-31.

### 3.0 SPECIFICATIONS – MATERIAL

- Frame:** Brass
- Deflector:** Brass
- Bulb:** Glass with glycerin solution
- Bulb Nominal Diameter:**  
Quick Response: 3.0mm
- Load Screw:** Brass
- Pip Cap:** Brass
- Spring Seal:** Teflon<sup>2</sup> tape coated beryllium nickel
- Sprinkler Finishes:** Plain Brass

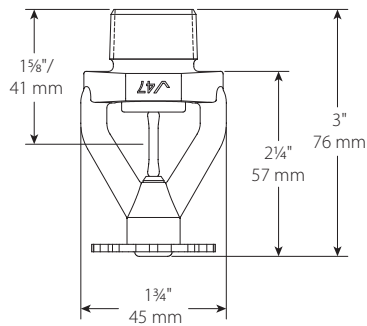
<sup>2</sup> Teflon is a registered trademark of Dupont Co.



Exaggerated for clarity

### 4.0 DIMENSIONS

#### Model V4702






## 5.0 PERFORMANCE

COMMODITY SELECTION AND DESIGN CRITERIA OVERVIEW FOR MODEL V4702		
Description	Specification	
	UL	FM
Sprinkler Type	ESFR	Quick Response Storage Sprinkler
Temperature Rating	155°F/68°C and 200°F/93°C	155°F/68°C and 200°F/93°C
K Factor/ S. I.	K16.8/S.I. 24.25	K16.8/S.I. 24.25
Thread Size	¾" NPT/20mm BSPT	¾" NPT/20mm BSPT
Sprinkler Position	Pendent	Pendent
System Type	Wet	Wet
Maximum Area of Coverage	100ft²/9.1 m²	100ft²/9.1 m²
Minimum Area of Coverage	64 ft²/6 m²	64 ft²/6 m²
Maximum Slope Ceiling	2 in 12/10.5°	2 in 12/10.5°
Maximum Spacing	12ft/3.6m for up to 30ft/9.1m ceiling 10ft/3m for over 30ft/9.1m ceiling	12ft/3.6m for up to 30ft/9.1m ceiling 10ft/3m for over 30ft/9.1m ceiling
Minimum Spacing	8ft/2.4m	8ft/2.4m
Deflector Distance from Walls	4"/100mm	4"/100mm
Deflector to Top of Storage	3ft/0.9m	3ft/0.9m
Deflector to Ceiling Distance	2" – 14"/50mm – 355mm	2" – 13"/50mm – 330mm
Maximum Ceiling Height	40ft/12.2m	40ft/12.2m
Maximum Storage Height	35ft/10.7m	35ft/10.7m
Storage Arrangement	Solid-piled, bin-box, palletized and open-frame rack (no solid shelves)	Solid-piled, bin-box, palletized and open-frame rack (no solid shelves)
Commodity	Class I-IV, Cartoned unexpanded plastics, cartoned expanded plastics, uncartoned unexpanded plastics, uncartoned expanded plastics	Class I-IV, Cartoned unexpanded plastics, cartoned expanded plastics, uncartoned unexpanded plastics, uncartoned expanded plastics
Sprinkler System Design	12 A.S @ approved pressures	12 A.S @ approved pressures
Minimum Aisle Width	4ft/1.2m	4ft/1.2m
Hose Stream allowance and Water Supply Duration	250 gpm/946 Lpm	250 gpm/946 Lpm

## 6.0 NOTIFICATIONS

**⚠ WARNING**

- 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.

Failure to follow these instructions could result in serious personal injury and/or property damage.

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.

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.

## 7.0 REFERENCE MATERIALS

### Available Wrenches:

Sprinkler Type	V44 Open End	V47 Open End
Pendent	✓	✓

[10.65: FireLock IGS Installation-Ready Style V9 Sprinkler Coupling](#)

[40.80: FireLock Automatic Sprinkler Wrenches](#)

[I-40: Victaulic FireLock Automatic Sprinklers Installation and Maintenance Guide](#)

### User Responsibility for Product Selection and Suitability

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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](http://www.victaulic.com).

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