

FireLock® V47, K16.8

Model V4702

 40.89



Early Suppression Fast Response
(ESFR) Pendent Sprinkler V4702

1.0 PRODUCT DESCRIPTION

Style: Pendent

Nominal Orifice Size: 3/4"/20 mm

Nominal Thread Size: 3/4" NPT/20 mm BSPT

K-Factor: 16.8 Imp./24.25 S.I.

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

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)	3/4
Orifice Size (mm)	20
Nominal K Factor Imperial	16.8
Nominal K Factor S.I. ¹	24.25
Response	Quick
Deflector Type	Pendent
Approved Temperature Ratings F°/C°	
cULus/FM	155/68
	200/93

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

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: Die cast brass

Deflector: Brass

Bulb: Glass with glycerin solution

Bulb Nominal Diameter:

Quick Response: 3.0mm

Load Screw: Brass

Pip Cap: Brass

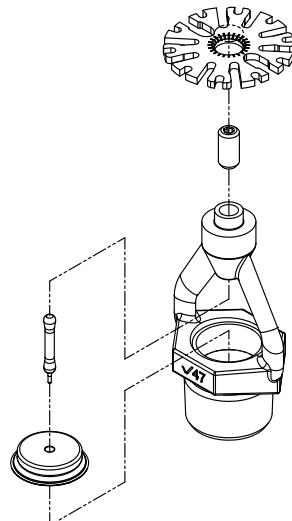
Seal: Teflon² tape

Spring: Beryllium nickel

Installation Wrench: V44, V47 Open End

Sprinkler Finishes: Plain Brass

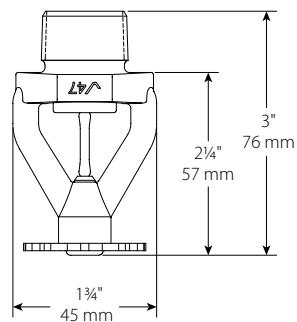
² Teflon is a registered trademark of Dupont Co.



Exaggerated for clarity

4.0 DIMENSIONS

Model V4702

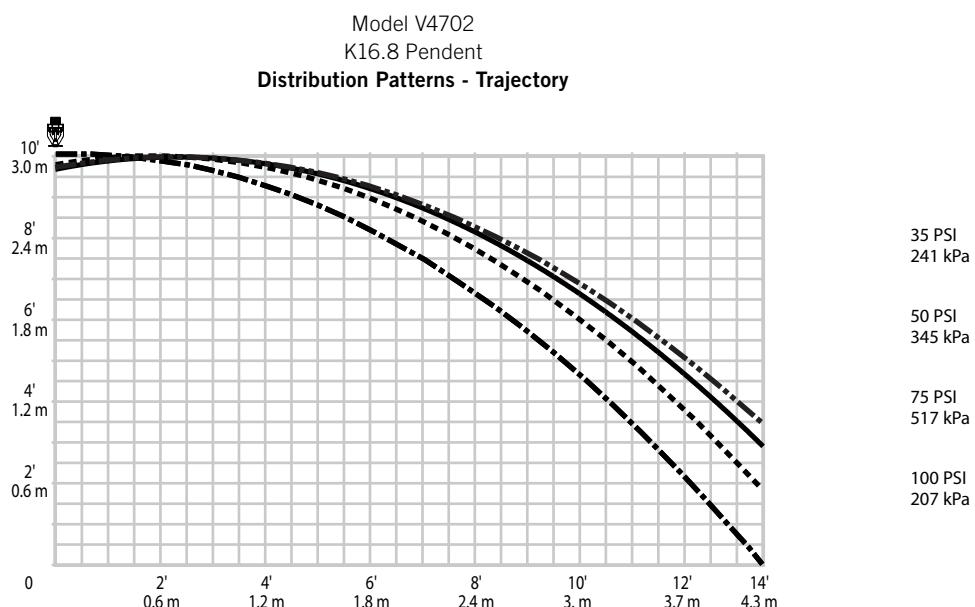


5.0 PERFORMANCE

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/20 mm BSPT	¾" NPT/20 mm BSPT
Sprinkler Position	Pendent	Pendent
System Type	Wet	Wet
Maximum Area of Coverage	100ft ² /9.1 m ²	100ft ² /9.1 m ²
Minimum Area of Coverage	64 ft ² /6 m ²	64 ft ² /6 m ²
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/2.4 m	8ft/2.4 m
Deflector Distance from Walls	4"/100 mm	4"/100 mm
Deflector to Top of Storage	3ft/0.9 m	3ft/0.9 m
Deflector to Ceiling Distance	2" – 14"/50 mm – 355 mm	2" – 13"/50 mm – 330 mm
Maximum Ceiling Height	40ft/12.2 m	40ft/12.2 m
Maximum Storage Height	35ft/10.7 m	35ft/10.7 m
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/1.2 m	4ft/1.2 m
Hose Stream allowance and Water Supply Duration	250 gpm/946 Lpm	250 gpm/946 Lpm

5.1 PERFORMANCE

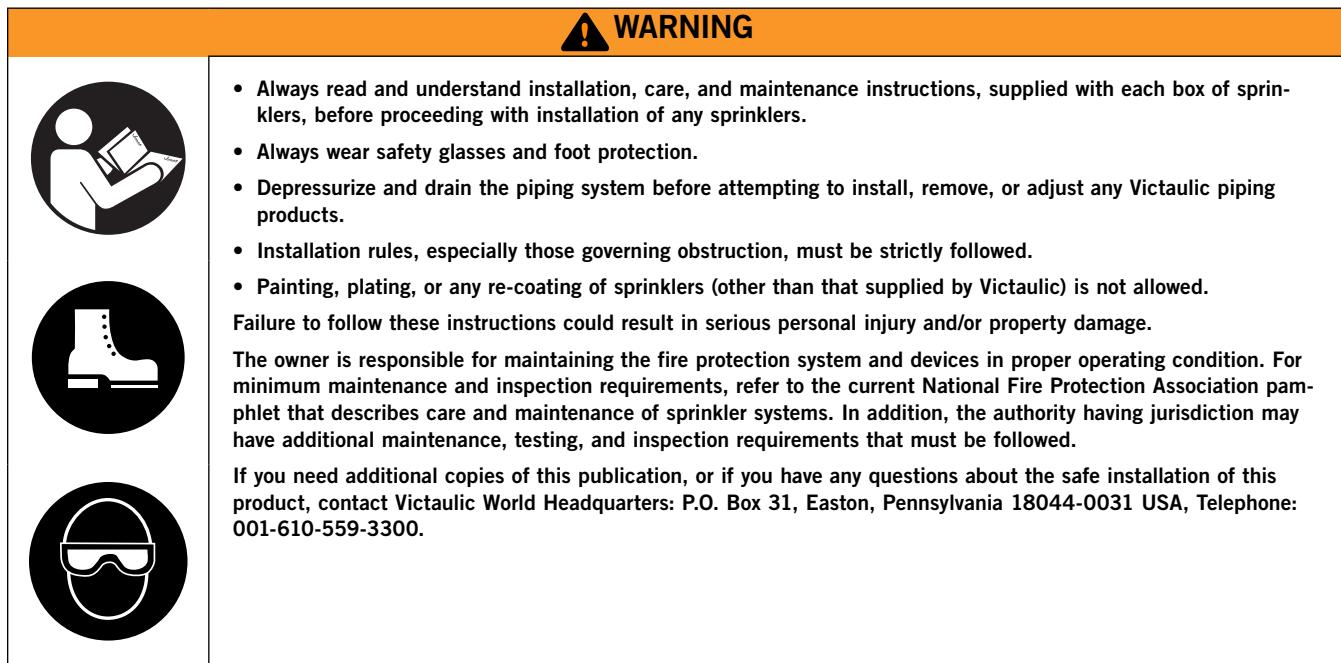
Distribution Patterns



NOTES

- Data shown is approximate and can vary due to differences in installation.
- These graphs illustrate approximate trajectories, floor-wetting, and wall-wetting patterns for these specific Victaulic FireLock Automatic Sprinklers. They are provided as information for guidance in avoiding obstructions to sprinklers and should not be used as minimum sprinkler spacing rules for installation. **Refer to the appropriate NFPA National Fire Code or the Authority Having Jurisdiction for specific information regarding obstructions, spacing limitations and area of coverage requirements.** Failure to follow these guidelines could adversely affect the performance of the sprinkler and will void all Listings, Approvals and Warranties.
- All patterns are symmetrical to the centerline of the waterway.

6.0 NOTIFICATIONS



7.0 REFERENCE MATERIALS

Ratings

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

Sprinkler Temperature Classification	Victaulic Part Identification	Temperature – °F/°C		Glass Bulb Color
		Nominal Temperature Rating	Maximum Ambient Temperature Allowed	
Ordinary	A	135°F/57°C	100°F/38°C	Orange
Ordinary	C	155°F/68°C	100°F/38°C	Red
Intermediate	E	175°F/79°C	150°F/65°C	Yellow
Intermediate	F	200°F/93°C	150°F/65°C	Green
High	J	286°F/141°C	225°F/107°C	Blue
–	M	Open	–	No Bulb

Available Wrenches:

Sprinkler Type	V44 Open End	V47 Open End
Pendent	✓	✓

[10.01: Regulatory Approval Reference Guide](#)

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

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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