

# Model K1 (AS1451)

"Automatic" Sprinkler Brand  
 Early Suppression Fast Response  
 ESFR, Pendent, K14.0

## PRODUCT DESCRIPTION



The "Automatic" Model K-1 ESFR Sprinkler is designed for use against severe fire challenges. The sprinkler is designed to quickly respond to a growing fire. It will discharge water in the correct droplet size to the base of a fire, with the proper distribution pattern and in sufficient quantity to

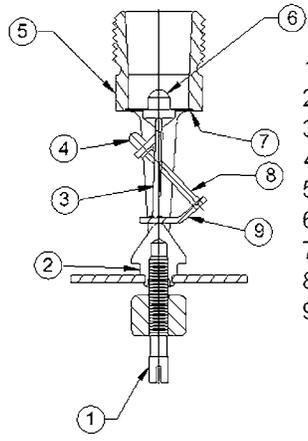
suppress the fire rather than control it. The ESFR has applications in buildings up to 40 feet high with 35 feet storage. It may be used to protect solid-piled, palletized and open-frame rack storage systems of class 1,2,3, and 4 commodities and cartons of unexposed plastics. Refer to

applicable NFPA and Factory Mutual standards for further and additional details regarding scope of commodity protection. The Model K-1 ESFR sprinkler utilizes time tested, glass bulb technology and is made to exacting standards in two temperature ratings.



See Victaulic publication 40.01 for details.

## TECHNICAL SPECIFICATIONS



1. Compression Screw
2. Deflector / Splitter
3. Strut
4. Thimble
5. Frame
6. Cap
7. Spring / Gasket
8. Glass Bulb
9. Lever

**Model:** K-1 (AS1451)  
**Style:** ESFR Pendent  
**Nominal Orifice Size:** 3/4" (20 mm)  
**K-Factor:** 14.0 Imp. (20,2 S.I. ^)  
**Nominal Thread Size:** 3/4" NPT (20 mm)  
**Max. Working Pressure:** 175 psi (1200 kPa)  
**Factory Hydrostatic Test:** 100% @ 500 psi (3450 kPa)  
**Min. Operating Pressure:** 50 psi (345 kPa)  
**Temperature Rating:** See chart on page 2.

**MATERIAL SPECIFICATIONS**  
**Deflector/Srut/Lever:** Bronze per UNS C51000  
**Bulb:** Glass with glycerin solution. Fast Response: 2,5 mm  
**Load Screw/Splitter:** Brass per UNS C36000  
**Bushing:** Brass per UNS C36000  
**Thimble & Cap:** Brass per UNS C36000  
**Spring:** Beryllium nickel  
**Seal:** Teflon\* tape  
**Frame:** Die cast brass 65-30

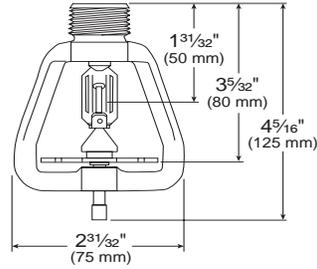
**ACCESSORIES**  
**Installation Wrench:**  
 Open End: V34 or "Automatic" Sprinkler P/N 8038706  
**Sprinkler Finishes:**  
 Plain brass only

^ For K-Factor when pressure is measured in Bar, multiply S.I. units by 10.0.  
 \*Teflon is a registered trademark of Dupont Co.

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## DIMENSIONS



## APPROVALS/ LISTINGS

Nominal Size Inches/mm		K-Factor Imperial S.I. <sup>^</sup>	Response	Deflector Type	Approvals ‡			
Thread	Orifice				UL	FM	ULC	LPCB
3/4 20	3/4 20	14.0 20,2	Standard	Pendent	Yes	Yes	Yes	Yes

‡ Listings and approval as of printing. Not all temperature rating combinations are Approved or Listed. Check Victaulic for specific combinations.

<sup>^</sup> For K-Factor when pressure is measured in Bar, multiply S.I. units by 10.0.

## RATINGS

All glass bulbs are rated for temperatures from -65°F (-54°C) up to those shown in adjacent table.

Sprinkler Temperature Classification	Victaulic Part Identification	Temperature – °F/°C		Glass Bulb Color
		Nominal Temperature Rating	Maximum Ambient Temp. Allowed	
Ordinary	C	155 68	100 38	Red
Intermediate	F	200 93	150 65	Green

## ORDERING INFORMATION

### Please specify the following when ordering:

- Sprinkler Model Number
- Style
- Temperature Rating
- K-Factor
- Thread Size
- Quantity
- Wrench Model Number

### Shipping Weights:

31 lbs. (14 kg) 50 Sprinklers

### Box Dimensions:

14 5/16" × 14 5/16" × 9 3/4"; (.36m × .36m × .25m); 1.16 cubic feet; (0.033 cubic meters)

## ! 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, 610-559-3300.

## WARRANTY

This product is warranted only by Kidde Fire Fighting. For further details contact Victaulic.