

Reliable®

Model JL-17 (SIN RA1914) K16.8 (240 metric) Early Suppression Fast Response Sprinkler

Features:

1. cULus, VdS, and LPCB listed as a nominal K16.8 (240 metric) ESFR sprinkler.
2. FM Approved as a quick-response, storage and non-storage, sprinkler.
3. Fusible link operating element.
4. Compact design allows piping to be installed farther from the ceiling and obstructions compared with larger sprinklers.

Listings and Approvals

1. Listed by Underwriters Laboratories Inc. and UL certified for Canada (cULus) - Category Code VNWH.
2. FM Approved as a quick-response, storage and non-storage, sprinkler.
3. VdS Schadenverhütung GmbH (VdS).
4. Loss Prevention Certification Board (LPCB).
5. CNBOP Technical Approval.

Product Description

The Reliable Model JL-17 Early Suppression Fast Response (ESFR) Sprinkler with a nominal k-factor of 16.8 (240 metric). This sprinkler is designed to respond quickly to growing fires and will deliver a heavy water discharge to “suppress” rather than “control” fires. FM Global classifies the Model JL-17 as a quick-response sprinkler, storage and non-storage, when the sprinkler is used in accordance with FM Global Property Loss Prevention Data Sheets.

The Model JL-17 ESFR sprinkler utilizes a levered fusible alloy solder link in either a 165°F (74°C) or a 212°F (100°C) rating. Model JL-17 sprinklers are cULus Listed for compliance with UL/ULC 1767, including the high clearance test for rack storage.

The Model JL-17 ESFR sprinkler was designed to be shorter and more compact than other ESFR sprinklers. The shorter sprinkler allows piping to be installed farther from the ceiling and obstructions. The JL-17 ESFR sprinkler is also less susceptible to damage due to smaller deflector and frame design. The lighter JL-17 ESFR passed rough use and abuse listing tests without plastic protectors.



Model JL-17 ESFR Sprinkler

Application and Installation

The Model JL-17 ESFR sprinkler is intended for installation in accordance with NFPA 13 and FM Loss Prevention Data Sheets 2-0 and 8-9, as well as the requirements of any Authorities Having Jurisdiction. See Table 1 for information on NFPA and FM Global design criteria for the Model JL-17 sprinkler.

Use only the Model J1 sprinkler wrench for removal and installation. Any other type of wrench may damage the sprinkler. A grooved wrench boss is provided on the sprinkler to limit the potential for the wrench to slip during installation.



**Model J1
Sprinkler Wrench**

When handling sprinklers, hold sprinklers only on frame arms and do not apply any force on the link assembly. Sprinklers should be tightened between 14 - 40 ft-lbs (19 - 54 N-m) torque.

Sprinklers not tightened to recommended torque may cause leakage or impairment of the sprinkler. Damage sprinklers must be replaced immediately.

Temperature Ratings and Approvals

Temperature Classification	Temperature Rating		Link Color	Frame Color	Maximum Ambient Temperature		Approvals	Sprinkler Identification Number (SIN)
	°F	°C			°F	°C		
Ordinary	165	74	Black	Uncolored	100	38	cULus, FM, VdS, LPCB, CNBOP	RA1914
Intermediate	212	100	White	White	150	66	cULus, FM, VdS, LPCB, CNBOP	

Installation Data

Sprinkler Type	Thread Size	Nominal K-Factor		Maximum Working Pressure	Finish
		US	Metric		
Pendent	¾" (R¾)	16.8	240	175 psi (12.1 bar)	Bronze

Pendent	¾" (R¾)	16.8	240	175 psi (12.1 bar)	Bronze
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Installation Criteria

The following general guidelines are provided for information only. NFPA and, where applicable, FM Global standards shall be consulted for complete design and installation criteria.

Orientation: Pendent, deflector should be parallel with the ceiling or roof.

System Type: Wet Pipe Systems Only.

Maximum area of coverage: 100 ft² (9.3m²), greater coverage areas are allowable in some cases.

Minimum area of coverage: 64 ft² (5.8m²).

Maximum slope ceiling: 2/12 pitch (9.5°).

Maximum spacing: 12 ft (3.7m) for building heights up to 30 ft (9.1m) and 10 feet (3.1m) for building heights greater than 30 ft (9.1m).

Minimum spacing: 8 feet (2.4m).

Deflector distance from walls: At least 4 inches (102mm) from walls, and no more than one-half the allowable distance permitted between sprinklers.

Deflector to Top of Storage: at least 36 in (900mm).

Deflector to ceiling Distance: 6 - 14 in (150 - 350mm) per NFPA 13.

Center Line of Thermal Sensing

Element To Ceiling Distance: 2 - 13 in (50 - 330mm) for smooth ceilings or 4 - 13 in (100 - 330mm) for non-smooth ceilings per FM Data Sheet 2-0.

Maintenance

The Model JL-17 ESFR Sprinkler should be inspected and the sprinkler system maintained in accordance with NFPA 25. Do not clean sprinkler with soap and water, ammonia or any other cleaning fluid. Replace any sprinkler that has been painted (other than factory applied) or damaged in any way. A stock of spare sprinklers should be maintained to allow quick replacement of damaged or operated sprinklers. Prior to installation, sprinklers should be maintained in the original cartons and packaging until used, to minimize the potential for damage to sprinklers that would cause improper operation or non-operation.

Once operated, automatic sprinklers cannot be reassembled and reused. New sprinklers of the same size, type and temperature rating must be installed. A cabinet of replacement sprinklers should be provided for this purpose.

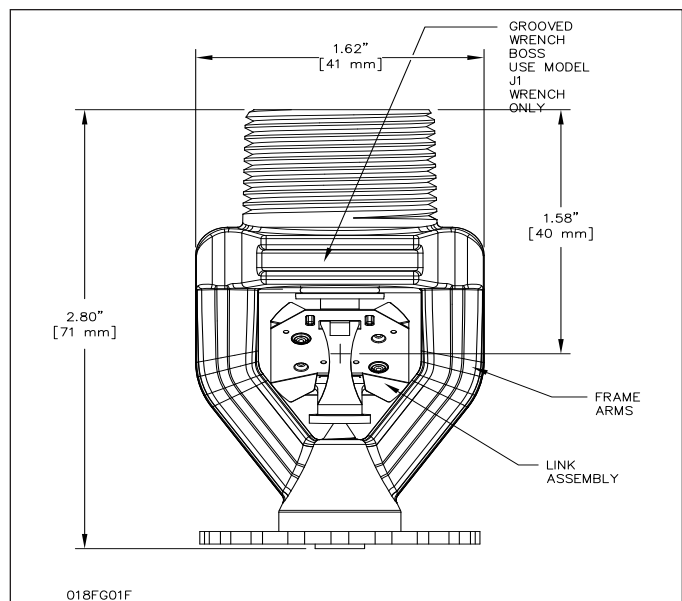
Model JL-17 ESFR Sprinkler Specification

Sprinklers shall be Early Suppression Fast Response (ESFR) pendent sprinklers specifically tested and [cULus Listed] [FM Approved] [VdS Approved] [LPCB Approved] for commodity storage applications. Sprinkler frame and deflector to be of bronze construction. Fusible link assembly shall utilize the strut and lever principle of operation with approved fast response black-painted or white-painted beryllium-nickel thermal element. Water seal shall consist of a PTFE coated Bellville spring washer and brass cap assembly containing no plastic parts. ESFR sprinklers shall have a nominal K-factor of 16.8 (240 metric) with [¾" NPT] [ISO 7-R¾] threaded end connections. Sprinkler temperature rating shall be [Ordinary 165°F (74°C)] [Intermediate 212°F (100°C)]. ESFR pendent sprinklers shall be Reliable Model JL-17 (Bulletin 019).

Ordering Information

Specify:

1. Sprinkler: Model JL-17
2. Temperature rating: [Ordinary 165°F (74°C)]
[Intermediate 212°F (100°C)]
3. Thread type: [¾" NPT] [ISO 7-R¾]



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	Refer to NFPA 13, Chapters 16 and 17.	Refer to FM 2-0 and FM 8-9.
Solid Pile or Palletized Storage of Class I-IV and Group A or B Plastics	Refer to NFPA 13, Chapters 14 and 15.	Refer to FM 2-8 and FM 8-9.
Idle Pallet Storage	Refer to NFPA 13, Chapter 12.	Refer to FM 2-0 and FM 8-24.
Rubber Tire Storage	Refer to NFPA 13, Chapter 18.	Refer to FM 2-0 and FM 2-0 and FM 8-3.
Rolled Paper Storage (Refer to the standard)	Refer to NFPA 13, Chapter 19.	Refer to FM 8-21.
Flammable Liquid Storage (Refer to standard)	Refer to NFPA 30.	N/A
Aerosol Storage (Refer to the standard)	Refer to NFPA 30B.	Refer to FM 7-31.
Automotive Components In Portable Racks (Control mode only; refer to the standard)	Refer to NFPA 13, Chapters 20.	N/A
TABLE 1 COMMODITY SELECTION AND DESIGN CRITERIA OVERVIEW FOR MODEL ESFR-17 PENDENT SPRINKLERS		

Reliable...For Complete Protection

Reliable offers a wide selection of sprinkler components. Following are some of the many precision-made Reliable products that guard life and property from fire around the clock.

- Automatic sprinklers
- Flush automatic sprinklers
- Recessed automatic sprinklers
- Concealed automatic sprinklers
- Adjustable automatic sprinklers
- Dry automatic sprinklers
- Intermediate level sprinklers
- Open sprinklers
- Spray nozzles
- Alarm valves
- Retarding chambers
- Dry pipe valves
- Accelerators for dry pipe valves
- Mechanical sprinkler alarms
- Electrical sprinkler alarm switches
- Water flow detectors
- Deluge valves
- Detector check valves
- Check valves
- Electrical system
- Sprinkler emergency cabinets
- Sprinkler wrenches
- Sprinkler escutcheons and guards
- Inspectors test connections
- Sight drains
- Ball drips and drum drips
- Control valve seals
- Air maintenance devices
- Air compressors
- Pressure gauges
- Identification signs
- Fire department connection

The equipment presented in this bulletin is to be installed in accordance with the latest published Standards of the National Fire Protection Association, Factory Mutual Research Corporation, or other similar organizations and also with the provisions of governmental codes or ordinances whenever applicable.

Products manufactured and distributed by Reliable have been protecting life and property for almost 100 years.

Manufactured by

Reliable[®]

Reliable Automatic Sprinkler Co., Inc.

(800) 431-1588

(800) 848-6051

(914) 829-2042

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Sales Offices

Sales Fax

Corporate Offices

Internet Address



Recycled
Paper

Revision lines indicate updated or new data.

EG. Printed in U.S.A. 11/17

P/N 9999970379



Distribution Patterns

Model JL-17 ESFR Pendent Sprinklers

1. Profile indicates maximum effective throw of one half of symmetrical spray pattern.
2. Sprinklers shown operating at flowing pressures indicated.
3. Spacings = one foot.
4. Legend:

20 P.S.I. - - - - -
30 P.S.I. - - - - -
50 P.S.I. - - - - -

These distribution patterns illustrate approximate trajectory and coverage as guidance for preventing an obstruction from being placed in the flow path. No specific coverage areas or densities are implied by these patterns.

