

Victaulic® FireLock™ Series FL-SR
Standard Coverage, Standard Response
Upright Pendent and Recessed Pendent Sprinklers,
K2.8 (4.0), K4.2 (6.1), K5.6 (8.1), K8.0 (11.5)



1.0 PRODUCT DESCRIPTION

STANDARD RESPONSE UPRIGHT SPRINKLERS				
SIN	V2861	V4261	V2703	V3401
ORIENTATION	UPRIGHT	UPRIGHT	UPRIGHT	UPRIGHT
K-FACTOR ¹	2.8 Imp./4.0 S.I.	4.2 Imp./6.1 S.I.	5.6 Imp./8.1 S.I.	8.0 Imp./11.5 S.I.
CONNECTION	½" NPT/15mm BSPT	½" NPT/15mm BSPT	½" NPT/15mm BSPT/IGS	¾" NPT/20mm BSPT/IGS
MAX. WORKING PRESSURE	175 psi (1200 kPa)	175 psi (1200 kPa)	175 psi (1200 kPa) cULus 250 psi (1725 kPa)	175 psi (1200 kPa)
GLOBE RE-DESIGNATION	GL2861	GL4261	GL5661	GL8164
GLOBE EQUIVALENT				

STANDARD RESPONSE PENDENT SPRINKLERS				
SIN	V2851	V4251	V2707	V3405
ORIENTATION	PENDENT	PENDENT	PENDENT	PENDENT
K-FACTOR ¹	2.8 Imp./4.0 S.I.	4.2 Imp./6.1 S.I.	5.6 Imp./8.1 S.I.	8.0 Imp./11.5 S.I.
CONNECTION	½" NPT/15mm BSPT	½" NPT/15mm BSPT	½" NPT/15mm BSPT/IGS	¾" NPT/20mm BSPT/IGS
MAX. WORKING PRESSURE	175 psi (1200 kPa)	175 psi (1200 kPa)	175 psi (1200 kPa) cULus 250 psi (1725 kPa)	175 psi (1200 kPa)
GLOBE RE-DESIGNATION	GL2851	GL4251	GL5651	GL8156
GLOBE EQUIVALENT				

STANDARD RESPONSE RECESSED PENDENT SPRINKLERS				
SIN	V2851	V4251	V2707	V3405
ORIENTATION	PENDENT	PENDENT	PENDENT	PENDENT
K-FACTOR ¹	2.8 Imp./4.0 S.I.	4.2 Imp./6.1 S.I.	5.6 Imp./8.1 S.I.	8.0 Imp./11.5 S.I.
CONNECTION	½" NPT/15mm BSPT	½" NPT/15mm BSPT	½" NPT/15mm BSPT	¾" NPT/20mm BSPT
MAX. WORKING PRESSURE	175 psi (1200 kPa)	175 psi (1200 kPa)	175 psi (1200 kPa) cULus 250 psi (1725 kPa)	175 psi (1200 kPa)
ESCUTCHEON	Recessed	Recessed	Recessed	Recessed
GLOBE RE-DESIGNATION	GL2851	GL4251	GL5651	GL8156
GLOBE EQUIVALENT				

AVAILABLE GUARDS/SHIELDS				
SPRINKLER	V28	V42	V27	V34
UPRIGHT			■	■
PENDENT			■	■

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



1.0 PRODUCT DESCRIPTION (CONTINUED)

AVAILABLE WRENCHES							
SPRINKLER	V56-2 Recessed	V56 Open End	V27-2 Recessed	V27 Open End	V34-2 Recessed	V34 Open End	3/16 Hex-Bit
V2861 and V4261		■					
V2703 and V2707				■			■
V3401						■	■
V2851 and V4251	■	■					
V2707			■	■			■
V3405					■	■	■

Factory Hydrostatic Test: 100% @ 500 psi/3447 kPa/34 bar

Min. Operating Pressure: UL/FM: 7psi/48 kPa/.5 bar
 VdS: 5psi/35 kPa/.35 bar (Upright only)

Temperature Rating: See tables in section 2.0

¹ For K-Factor when pressure is measured in bar, multiply S.I. units by 10.0.

2.0 CERTIFICATION/LISTINGS



UPRIGHT APPROVALS/LISTINGS				
SIN	V2861	V4261	V2703	V3401
Nominal K Factor Imperial	2.8	4.2	5.6	8.0
Nominal K Factor S.I. ²	4.0	6.1	8.1	11.5
Orientation	UPRIGHT	UPRIGHT	UPRIGHT	UPRIGHT
Approved Temperature Ratings F°/C°				
cULus	135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C 360°F/182°C	135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C 360°F/182°C	135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C 360°F/182°C 500°F/260°C	135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C 360°F/182°C
FM	-	-	135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C 360°F/182°C	135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C 360°F/182°C
LPCB	-	-	135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C 360°F/182°C	135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C 360°F/182°C
CE	-	-	135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C	135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C
VdS	-	-	135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C	135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C
CCC ZSTZ-15	-	-	155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C	155°F/68°C - - 286°F/141°C

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

NOTES

- Listings and approval as of printing.
- Where cULus Listed, Polyester and VC-250 Coatings Listed as Corrosion Resistant (V3401 with VC-250 Only)
- Where FM Approved, VC-250 Coating Approved as Corrosion Resistant
- New York City Acceptance - All UL Listed and/or FM Approved sprinklers acceptable to NYC per section 28-113 of the Administrative Code and the OTCR Rule.

2.0 CERTIFICATION/LISTINGS (CONTINUED)



PENDENT APPROVALS/LISTINGS				
SIN	V2851	V4251	V2707	V3405
Nominal K Factor Imperial	2.8	4.2	5.6	8.0
Nominal K Factor S.I. ²	4.0	6.1	8.1	11.5
Orientation	PENDENT	PENDENT	PENDENT	PENDENT
Escutcheon	Flush Extended	Flush Extended	Flush Extended	Flush Extended
Approved Temperature Ratings F°/C°				
cULus	135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C 360°F/182°C	135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C 360°F/182°C	135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C 360°F/182°C 500°F/260°C	135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C 360°F/182°C
FM	-	-	135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C 360°F/182°C	135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C 360°F/182°C
CCC ZSTX-15	-	-	155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C	155°F/68°C - - 286°F/141°C

RECESSED PENDENT APPROVALS/LISTINGS				
SIN	V2851	V4251	V2707	V3405
Nominal K Factor Imperial	2.8	4.2	5.6	8.0
Nominal K Factor S.I. ²	4.0	6.1	8.1	11.5
Orientation	PENDENT	PENDENT	PENDENT	PENDENT
Escutcheon	Recessed	Recessed	Recessed	Recessed
Approved Temperature Ratings F°/C°				
cULus	135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C	135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C	135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C	135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C
FM With ½" Adjustment Escutcheon Only	-	-	135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C	135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C
CCC ZSTX-15	-	-	155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C	155°F/68°C - - 286°F/141°C

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

NOTES

- Listings and approval as of printing.
- Where cULus Listed, Polyester and VC-250 Coatings Listed as Corrosion Resistant (V3401 with VC-250 Only)
- Where FM Approved, VC-250 Coating Approved as Corrosion Resistant
- New York City Acceptance - All UL Listed and/or FM Approved sprinklers acceptable to NYC per section 28-113 of the Administrative Code and the OTCR Rule.

3.0 SPECIFICATIONS – MATERIAL

Deflector: Bronze

Bulb Nominal Diameter: 5.0mm

Load Screw: Bronze

Pip Cap: Bronze

Spring Seal: PTFE coated Beryllium nickel alloy

Frame: Brass

Lodgement Spring: Stainless steel

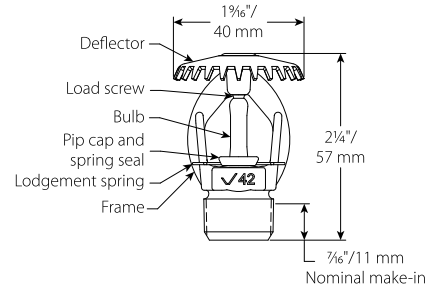
Installation Wrench: Ductile iron

Sprinkler Frame Finishes:

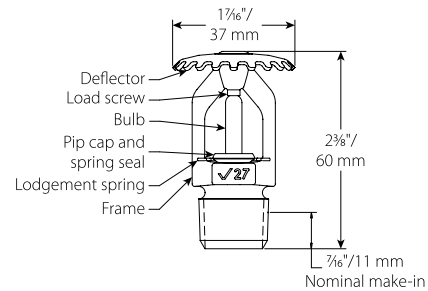
- Plain brass
 - Chrome plated
 - White polyester painted^{3, 4}
 - Flat black polyester painted^{3, 4}
 - Custom polyester painted^{3, 4}
 - VC-250⁵
- ³ Not available on the Intermediate Level Style Pendent.
⁴ UL Listed for corrosion resistance.
⁵ UL Listed and FM Approved for corrosion resistance.

NOTE

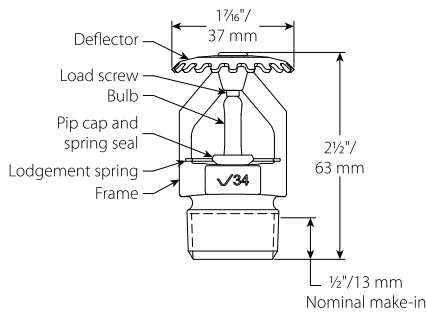
- For cabinets and other accessories refer to separate sheet.



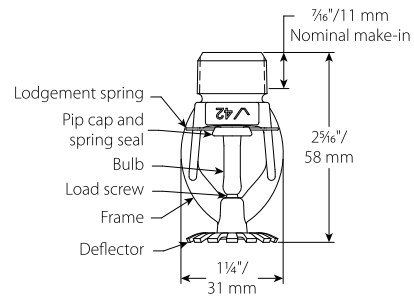
V2861, V4261



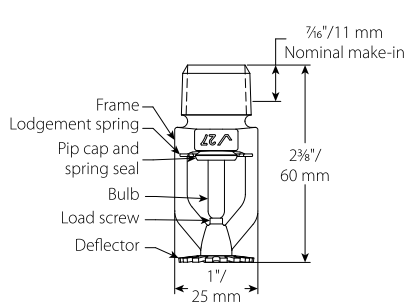
V2703



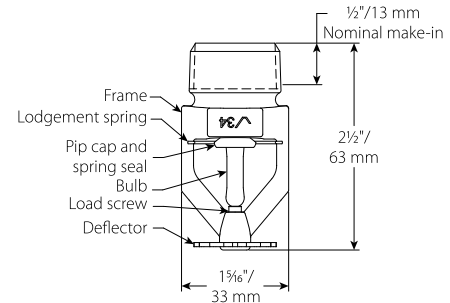
V3401



V2851, V4251

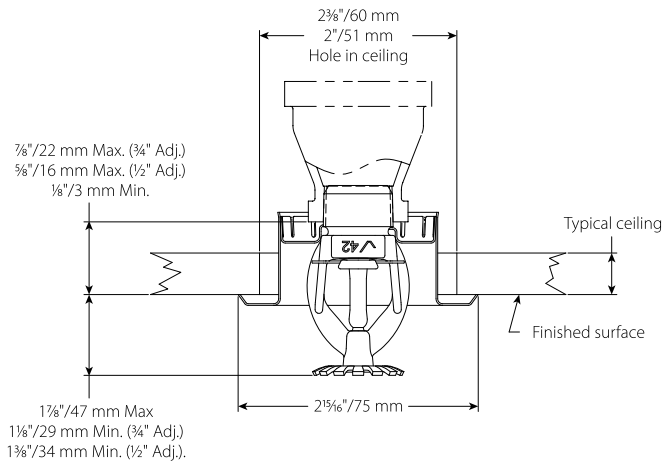


V2707

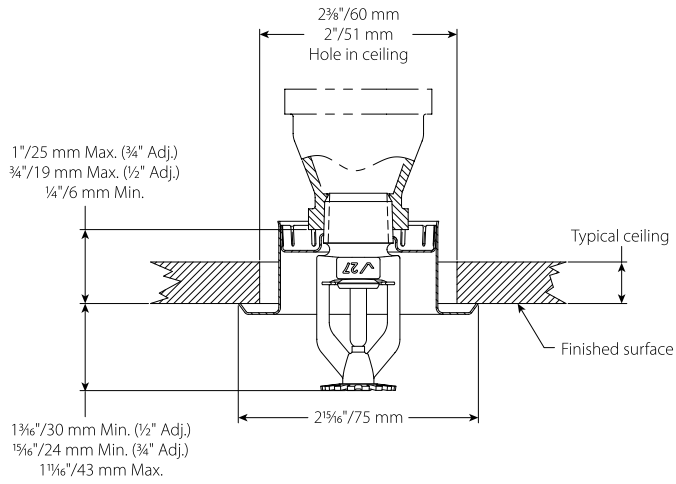


V3405

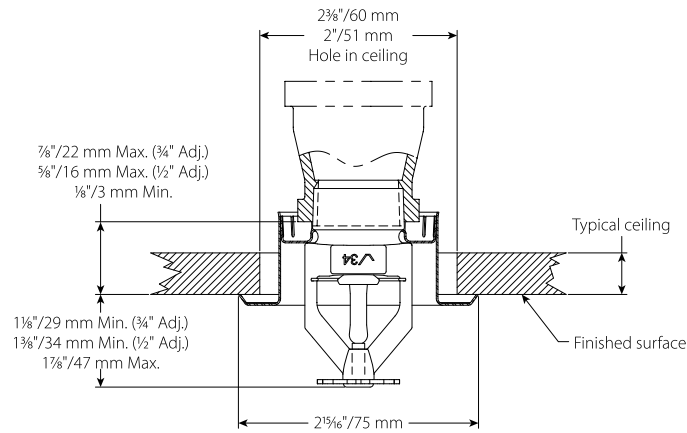
4.0 DIMENSIONS



V2851, V4251



V2707









V3405

5.0 PERFORMANCE

Sprinkler is to be installed and designed as per NFPA, FM Datasheets, or any local standards.

6.0 NOTIFICATIONS

 WARNING	
    	<ul style="list-style-type: none">• Read and understand all instructions before attempting to install any Victaulic products.• Always verify that the piping system has been completely depressurized and drained immediately prior to installation, removal, adjustment, or maintenance of any Victaulic products.• Wear safety glasses, hardhat, and foot protection. <p>Failure to follow these instructions could result in death or serious personal injury and property damage.</p>
<ul style="list-style-type: none">• These products shall be used only in fire protection systems that are designed and installed in accordance with current, applicable National Fire Protection Association (NFPA 13, 13D, 13R, etc.) standards, or equivalent standards, and in accordance with applicable building and fire codes. These standards and codes contain important information regarding protection of systems from freezing temperatures, corrosion, mechanical damage, etc.• The installer shall understand the use of this product and why it was specified for the particular application.• The installer shall understand common industry safety standards and potential consequences of improper product installation.• It is the system designer's responsibility to verify suitability of materials for use with the intended fluid media within the piping system and external environment.• The material specifier shall evaluate the effect of chemical composition, pH level, operating temperature, chloride level, oxygen level, and flow rate on materials to confirm system life will be acceptable for the intended service. <p>Failure to follow installation requirements and local and national codes and standards could compromise system integrity or cause system failure, resulting in death or serious personal injury and property damage.</p>	

7.0 REFERENCE MATERIALS

Ratings: All glass bulbs are rated for temperatures from -67°F/-55°C.

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

[I-V9: Style V9 Victaulic FireLock™ IGS™ Installation-Ready™ Sprinkler Coupling Installation Instructions](#)

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, 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.

Intellectual Property Rights

No statement contained herein concerning a possible or suggested use of any material, product, service, or design is intended, or should be construed, to grant any license under any patent or other intellectual property right of Victaulic or any of its subsidiaries or affiliates covering such use or design, or as a recommendation for the use of such material, product, service, or design in the infringement of any patent or other intellectual property right. The terms "Patented" or "Patent Pending" refer to design or utility patents or patent applications for articles and/or methods of use in the United States and/or other countries.

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.

Trademarks

Victaulic and all other Victaulic marks are the trademarks or registered trademarks of Victaulic Company, and/or its affiliated entities, in the U.S. and/or other countries.

VNIV.EX5170 - Sprinklers, Automatic and Open

Sprinklers, Automatic and Open

VICTAULIC CO

4901 KESSLERSVILLE RD
EASTON, PA 18040-6714 United States

EX5170

Sprinkler Identification Numbers (SIN) V24XX, V26XX, V27XX, V29XX, V34XX, V35XX, V38XX, V39XX Series Glass Bulb Type. Painted or plated sprinklers are identified by an unpainted or unplated compression screw.

**UPRIGHT AND PENDENT STANDARD SPRAY SPRINKLERS
NOMINAL 5.6 K-FACTOR**

SIN	Response Type	Type	System Working Pressure, psig	Temp Rating, °F
V2708###	QR	Pendent	250	135, 155, 175, 200, 286
V2704###	QR	Upright	250	135, 155, 175, 200, 286
V2756	QR	Upright	300	135, 155, 175, 200, 286
V2707###	SR	Pendent	250	135, 155, 175, 200, 286, 360, 500
V2703###	SR	Upright	250	135, 155, 175, 200, 286, 360, 500
V2755	SR	Upright	300	135, 155, 175, 200, 286, 360

NOMINAL 1.4 TO 4.2 K-FACTOR

SIN	Response Type	Type	Nom K-Factor	System Working Pressure, psig	Temp Rating, °F
V2706	QR	Recessed Pendent	2.8	175	135, 155, 175, 200
V2706	QR	Pendent	2.8	175	135, 155, 175, 200, 286
V2702	QR	Upright	2.8	175	135, 155, 175, 200, 286
V2705	SR	Recessed/Pendent	2.8	175	135, 155, 175, 200, 286, 360, 500
V2701	SR	Upright	2.8	175	135, 155, 175, 200, 286, 360, 500
V2801	QR	Pendent	2.8	175	135,155,175,200,286
V2815	QR	Upright	2.8	175	135,155,175,200,286
V2826	QR	HSW	2.8	175	135,155,175,200,286
V2861	SR	Upright	2.8	175	135,155,175,200,286,360
V2851	SR	Pendent	2.8	175	135,155,175,200,286,360
V2870	SR	HSW	2.8	175	135,155,175,200,286,360

*V2401	SR	Upright	4.2	175	135, 155, 175, 200, 286, 360
*V2403	SR	Pendent	4.2	175	135, 155, 175, 200, 286, 360
+V2759	SR	Pendent	4.2	175	135, 155, 175, 200, 286, 360, 500
*V2402	SR	Upright	4.2	175	135, 155, 175, 200, 286
*V2404	QR	Pendent	4.2	175	135, 155, 175, 200, 286
+V2760	QR	Pendent	4.2	175	135, 155, 175, 200, 286
V4201	QR	Pendent	4.2	175	135,155,175,200,286
V4215	QR	Upright	4.2	175	135,155,175,200,286
V4251	SR	Pendent	4.2	175	135,155,175,200,286,360
V4261	SR	Upright	4.2	175	135,155,175,200,286,360
V4226	QR	HSW	4.2	175	135,155,175,200,286
V4270	SR	HSW	4.2	175	135,155,175, 200, 286,360

* 3/8 NPT will be utilized.

+ 1/2 NPT will be utilized.

NOMINAL 8.0 K-FACTOR

SIN	Response Type	Type	Inlet Thread NPT	System Working Pressure, psig	Temp Rating, °F
V3406#	QR	Pendent	3/4	175	135, 155, 175, 200, 286
V3402#	QR	Upright	3/4	175	135, 155, 175, 200, 286
V3405#	SR	Pendent	3/4	175	135, 155, 175, 200, 286, 360
V3401#	SR	Upright	3/4	175	135, 155, 175, 200, 286, 360

STANDARD SIDEWALL SPRAY SPRINKLERS

SIN	Response Type	Type	Nom K-Factor	System Working Pressure, psig	Temp Rating, °F
V2710+ ###	QR	HSW	5.6	250	135, 155, 175, 200, 286
V2826+	QR	HSW	2.8	175	135,155,175,200,286
V2870+	SR	HSW	2.8	175	135,155,175,200,286,360
V3410+#	QR	HSW	8.0	175	135, 155, 175, 200, 286
V2710+ ###	QR	Rec. HSW	5.6	250	135, 155, 175, 200
V3410+#	QR	Rec. HSW	8.0	175	135, 155, 175, 200
V2709+ ###	SR	HSW	5.6	250	135, 155, 175, 200, 286, 360, 500
V3409+#	SR	HSW	8.0	175	135, 155, 175, 200, 286, 360
V2709+ ###	SR	Rec. HSW	5.6	250	135, 155, 175, 200

Pendent

Pendent automatic sprinklers are sprinklers designed such that the water discharge from the sprinkler orifice is directed downward towards the deflector which in turn directs the water downward toward the protected area. The sprinkler is designed such that the deflector is located below the pipe to which the sprinkler is connected.

Recessed Horizontal Sidewall

Sidewall sprinklers are sprinklers that are intended for installation near a wall/ceiling interface. They are equipped with a special deflector which discharges most of the water in a horizontal plane so that the water is directed onto adjacent walls as well as the protected area. The sprinklers are generally intended for locations such as offices, hotel lobbies and dining rooms, where the installation of Non-Storage pendent or upright sprinklers with the usual ceiling spacing and pipe location may be objectionable because of appearance. They are also installed for special circumstances where their directional properties are desirable.

Recessed horizontal sidewall sprinklers consist of a horizontal sidewall sprinkler installed in a decorative recessed cup which reduces the protrusion of the sprinkler from the wall. They are intended for use with concealed sprinkler piping where attractive appearance is desired; such occupancies may include offices, hotel lobbies, dining rooms, clubs and similar properties.

Recessed Pendent

Recessed pendent sprinklers consist of a pendent sprinkler installed in a decorative recessed cup which reduces the protrusion of the sprinkler from the ceiling. They are intended for use with concealed sprinkler piping where attractive appearance under a ceiling is desired; such occupancies may include offices, hotel lobbies, dining rooms, clubs and similar properties. FM Approved recessed pendent sprinklers are limited to a maximum temperature rating of 225°F (107°C) and to protection of hazard occupancies as outlined in the occupancy-specific FM Global Property Loss Prevention Data Sheet. Unless indicated otherwise by the occupancy-specific FM Global Property Loss Prevention Data Sheet, these sprinklers are FM Approved only for use in wet systems as well as pre-action systems that qualify as a wet system.

Upright

Upright automatic sprinklers are sprinklers designed such that the water discharge from the sprinkler orifice is directed upward towards the deflector which in turn redirects the water downward toward the protected area. The sprinkler is designed such that the deflector is located above the pipe to which the sprinkler is connected.

Vertical Sidewall

Sidewall sprinklers are sprinklers that are intended for installation near a wall/ceiling interface. They are equipped with a special deflector which discharges most of the water in a horizontal plane so that the water is directed onto adjacent walls as well as the protected area. The sprinklers are generally intended for locations such as office, hotel lobbies, and dining rooms, where the installation of Non-Storage pendent or upright sprinklers with the usual ceiling spacing and pipe location may be objectionable because of appearance. They are also installed for special circumstances where their directional properties are desirable.

Vertical sidewall automatic sprinklers are sidewall-type sprinklers in which the axis of the sprinkler orifice is oriented vertically. They are FM Approved for use in both the upright and pendent positions, except where noted otherwise.

Non-Storage Sprinklers

A Non-Storage automatic sprinkler is a sprinkler that has been categorized by FM Global as acceptable for protecting non-storage-type occupancies and/or other occupancy hazards characterized by low to moderate heat-release rate fires as permitted in a FM Global occupancy-specific Property Loss Prevention Data Sheet.

K8.0 (K115 metric)

Non-Storage automatic sprinklers having a K-factor value of 8.0 (115 metric) are similar to Non-Storage automatic sprinklers having a K-factor value of 5.6 (80 metric), except that they discharge roughly 40% more water at the same discharge pressure. Similar to K5.6 (K80 metric) sprinklers, pendent sprinklers of this K-factor would require the installation of return bends if the water supply is fed from an open-body type source. See FM Global Property Loss Prevention Data Sheet 2-0, *Installation Guidelines for Automatic Sprinklers*, for additional details and requirements regarding these sprinklers.

K8.0 (K115 metric) Upright

V3401

Company Name:	Victaulic Company
Company Address:	4901 Kesslersville Rd, Easton, Pennsylvania 18040, USA
Company Website:	http://victaulic.com
New/Updated Product Listing:	No
Class of Work:	2001-AS, Ctrl Mode (nom K=8.0)

Listing Country:	United States of America
Sprinkler Category:	Non Storage
K:	8.0
Type:	Upright
Response:	SR - Standard Response
Element:	5 mm
NPT (in.):	3/4
Finish:	Wax, Wax Over Lead
Temp. Rating (°F):	155, 200, 286
Temp. Rating (°C):	68, 93, 141
Certification Type:	FM Approved