

Victaulic® FireLock™ Series FL-ECOH

Extended Coverage, Standard and Quick Response

Upright, Pendent and Recessed Pendent Sprinklers

K11.2 (16.2), K14.0 (20.2)



1.0 PRODUCT DESCRIPTION

EXTENDED COVERAGE UPRIGHT SPRINKLERS		
SIN	V1121	V3425
ORIENTATION	UPRIGHT	UPRIGHT
K-FACTOR ¹	11.2 Imp./16.1 S.I.	14.0 Imp./20.2 S.I.1
CONNECTION	¾" NPT/20mm BSPT	¾" NPT/20mm BSPT/IGS Grooved
MAX. WORKING PRESSURE	175 psi/1200 kPa	175 psi/1200 kPa
GLOBE RE-DESIGNATION	GL1121	–

EXTENDED COVERAGE PENDENT SPRINKLERS		
SIN	V1113	V3421
ORIENTATION	PENDENT	PENDENT
K-FACTOR ¹	11.2 Imp./16.1 S.I.	14.0 Imp./20.2 S.I.
CONNECTION	¾" NPT/20mm BSPT	¾" NPT/20mm BSPT/IGS Grooved
MAX. WORKING PRESSURE	175 psi/1200 kPa	175 psi/1200 kPa
GLOBE RE-DESIGNATION	GL1113	–

EXTENDED COVERAGE RECESSED PENDENT SPRINKLERS		
SIN	V1113	V3421
ORIENTATION	RECESSED PENDENT	RECESSED PENDENT
K-FACTOR ¹	11.2 Imp./16.1 S.I.	14.0 Imp./20.2 S.I.
CONNECTION	¾" NPT/20mm BSPT	¾" NPT/20mm BSPT
MAX. WORKING PRESSURE	175 psi/1200 kPa	175 psi/1200 kPa
GLOBE RE-DESIGNATION	GL1113	–

AVAILABLE WRENCHES					
SPRINKLER	V11 Recessed	V11 Open End	V34 Recessed	V34 Open End	⅜ Hex-Bit (V9)
Upright		■		■	■
Pendent	■	■	■	■	■

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

Min. Operating Pressure: UL: 7psi/48 kPa/5 bar

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.

NOTE:

- Victaulic Series FL-ECOH sprinklers are listed for use in ordinary hazard occupancies or light hazard occupancies utilizing ordinary hazard densities.

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

2.0 CERTIFICATION/LISTINGS



SIN		V1121						
Nominal K Factor Imperial		11.2						
Nominal K Factor S.I. ²		16.2						
Installation Type		UPRIGHT						
Maximum Coverage Area Width x Length Ft. x Ft m x m	Listing Agency	Response	OH1 Flow GPM L/min	OH1 Pressure PSI kPa	OH2 Flow GPM L/min	OH2 Pressure PSI kPa	Approved Temperature Ratings F°/C°	Minimum Spacing Ft. m
14 x 14 4.3 x 4.3	UL	QR	30 114	7.2 50	39 148	12.1 83	155°F/68°C 200°F/93°C	11 3.4
16 x 16 4.9 x 4.9	UL	SR	39 148	12.1 83	51 196	20.7 143	155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C	
18 x 18 5.5 x 5.5	UL	SR	49 185	19.1 132	65 246	33.7 232	155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C	
20 x 20 6.1 x 6.1	UL	SR	60 227	28.7 198	80 303	51 352	155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C	

SIN		V3425						
Nominal K Factor Imperial		14.0						
Nominal K Factor S.I. ²		20.2						
Installation Type		UPRIGHT						
Maximum Coverage Area Width x Length Ft. x Ft m x m	Listing Agency	Response	OH1 Flow GPM L/min	OH1 Pressure PSI kPa	OH2 Flow GPM L/min	OH2 Pressure PSI kPa	Approved Temperature Ratings F°/C°	Minimum Spacing Ft. m
14 x 14 4.3 x 4.3	UL	SR	39 148	7.8 54	51 193	13.3 92	155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C	8 2.4
16 x 16 4.9 x 4.9	UL	SR	39 149	7.8 54	51 196	13.3 92	155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C	
18 x 18 5.5 x 5.5	UL	SR	49 186	12.3 85	65 246	21.6 149	155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C	
20 x 20 6.1 x 6.1	UL	SR	60 227	18.4 127	80 303	32.7 226	155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C	

² For K-Factor when pressure is measured in bar, multiply S.I. units by 10.0.

NOTES

- Reference the specific agency website listings for the most up-to-date certification information.

2.0 CERTIFICATION/LISTINGS (CONTINUED)



SIN		V1113							
Nominal K Factor Imperial		11.2							
Nominal K Factor S.I. ²		16.2							
Installation Type		Pendent/Recessed Pendent							
Maximum Coverage Area Width x Length Ft. x Ft m x m	Listing Agency	Response	Adjustment In mm	OH1 Flow GPM L/min	OH1 Pressure PSI kPa	OH2 Flow GPM L/min	OH2 Pressure PSI kPa	Approved Temperature Ratings F°/C°	Minimum Spacing Ft. m
14 x 14 4.3 x 4.3	UL	QR	½ and ¾ 15 and 20	30 114	7.2 50	39 148	12.1 83	155°F/68°C 200°F/93°C	9 2.7
16 x 16 4.9 x 4.9	UL	SR	½ and ¾ 15 and 20	39 148	12.1 83	51 196	20.7 143	155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C	
18 x 18 5.5 x 5.5	UL	SR	½ and ¾ 15 and 20	49 185	19.1 132	65 246	33.7 232	155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C	
20 x 20 6.1 x 6.1	UL	SR	½ and ¾ 15 and 20	60 227	28.7 198	80 303	51 352	155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C	

SIN		V3421							
Nominal K Factor Imperial		14.0							
Nominal K Factor S.I. ²		20.2							
Installation Type		Pendent/Recessed Pendent							
Maximum Coverage Area Width x Length Ft. x Ft m x m	Listing Agency	Response	Adjustment In mm	OH1 Flow GPM L/min	OH1 Pressure PSI kPa	OH2 Flow GPM L/min	OH2 Pressure PSI kPa	Approved Temperature Ratings F°/C°	Minimum Spacing Ft. m
14 X 14 4.3 X 4.3	UL	SR	½ and ¾ 15 and 20	39.0 148	7.8 54	51.0 193	13.3 92	155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C	12 3.7
16 X 16 4.9 X 4.9	UL	SR	½ and ¾ 15 and 20	39.0 149	7.8 55	51 196	13.3 93	155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C	
18 x 18 5.5 x 5.5	UL	SR	½ and ¾ 15 and 20	49.0 186	12.3 85	65 246	21.6 149	155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C	
20 x 20 6.1 x 6.1	UL	SR	½ and ¾ 15 and 20	60 227	18.4 127	80.0 303	32.7 226	155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C	

² For K-Factor when pressure is measured in bar, multiply S.I. units by 10.0.

NOTES

- Reference the specific agency website listings for the most up-to-date certification information.

3.0 SPECIFICATIONS – MATERIAL

Deflector: Bronze

Bulb Nominal Diameter: 3.0mm

Load Screw: Bronze

Pip Cap: Bronze

Spring Seal Assembly: PTFE coated Beryllium nickel alloy

Frame: Brass

Lodgement Spring: Stainless steel

Installation Wrench: Ductile iron

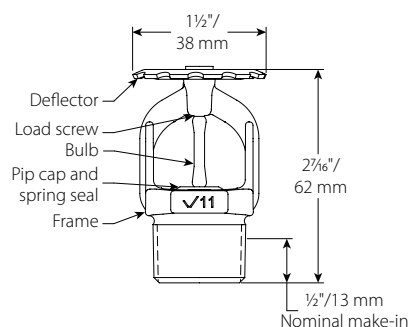
Sprinkler Frame Finishes:

- Plain brass
- Chrome plated
- White polyester painted³
- Flat black polyester painted³
- Custom polyester painted³
- VC-250³

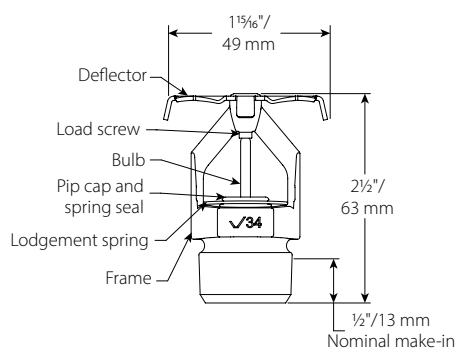
³ UL Listed for corrosion resistance.

NOTE

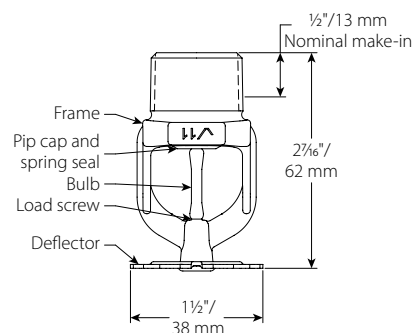
- For cabinets and other accessories refer to separate sheet.



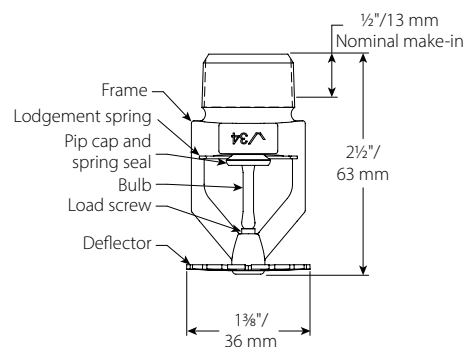
V1121



V3425

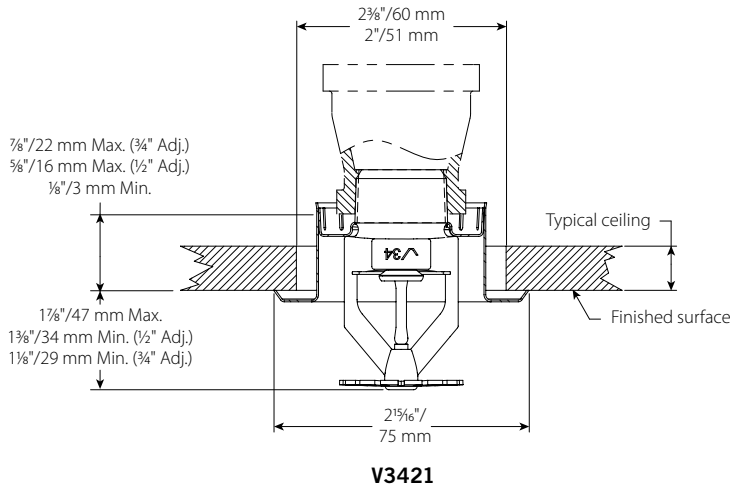
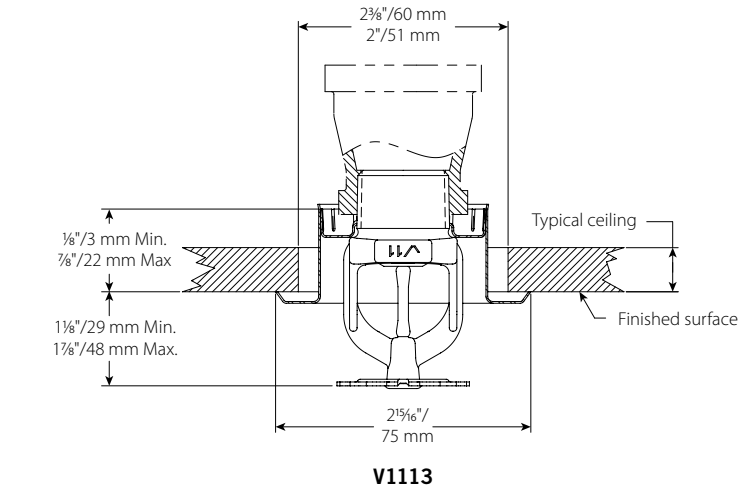


V1113



V3421

4.0 DIMENSIONS



5.0 PERFORMANCE

Sprinkler systems are to be designed to and installed per NFPA and any local standards.

Series FL-ECOH K11.2 (16.2) and K14.0 (20.2) sprinklers are listed for use in unobstructed or non-combustible obstructed ceiling construction as defined and permitted by NFPA 13, as well as a specific application listed for use under concrete tees.

FL-ECOH sprinklers are permitted to be installed under concrete tees when installed as follows:

- Maximum tee depth: 2'-6" (0.8 m)
- Maximum tee spacing: 7'-6" (2.3 m)
- Minimum tee spacing: 3'-0" (0.9 m)
- Maximum tee length: 32'-0" (9.8 m) or
- Non-combustible baffles not less than than tee depth with not more than 32'-0" (9.8 m) between them
- Deflector distance not more than 1" (25 mm) below tees
- If deflectors are above tees, NFPA 13 obstruction rules shall apply

6.0 NOTIFICATIONS

WARNING



- 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.

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

- 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) 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.

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.

7.0 REFERENCE MATERIALS

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

[1-40: 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 determining the suitability of Victaulic products for their end-use application, in accordance with industry standards, project specifications, and Victaulic's published performance, maintenance, and safety data, as well as all warnings and installation 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, warranty, installation instructions, or this disclaimer.

Installation

Always refer to and follow the [Victaulic Installation Handbook](#) or installation instructions for 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 [victaulic.com](#).

Warranty

Refer to the Warranty section of the current Price List or contact Victaulic for details.

Intellectual Property Rights

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Note

All products bearing a Victaulic trademark are manufactured by Victaulic or to Victaulic specifications. All products are to be installed only in accordance with the applicable Victaulic installation instructions. Victaulic reserves the right to change product specifications, designs and standard equipment without notice and without incurring obligations.