

FireLock™ V34, K8.0

Models V3415 Standard Response, V3416 Quick Response



V3415/V3416
Recessed Horizontal
Sidewall



V3415/V3416
Horizontal
Sidewall

1.0 PRODUCT DESCRIPTION

Models: V3415, V3416

Style: ECLH (Extended Coverage Light Hazard) – Horizontal Sidewall or Recessed Horizontal Sidewall

Nominal Orifice Size: 1⁷/₃₂"/14 mm

K Factor: 8.0 Imp./11.5 S.I.¹

Nominal Inlet Size: 3/4"NPT/20 mm BSPT/IGS Grooved, reference [publication 10.65](#)

Max. Working Pressure: 175 psi/1200 kPa/12 bar

Factory Hydrostatic Test: 100% @ 500 psi/3450 kPa/34 bar

Min. Operating Pressure: 7 psi/48 kPa/0.5 bar

Temperature Rating: See chart on pages 2 and 3.

Application: Designed with a large orifice to minimize operating pressures while providing extended coverage light hazard protection.

Codes and Requirements: For coverage area and sprinkler placement, refer to NFPA 13, FM Datasheets, or any applicable local requirements.

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

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 CERTIFICATIONS/LISTINGS



APPROVALS/LISTINGS		Model					
		V3415	V3415	V3415	V3416	V3416	V3416
Orifice Size (inches)		17/32	17/32	17/32	17/32	17/32	17/32
Orifice Size (mm)		14	14	14	14	14	14
Nominal K Factor Imperial		8.0	8.0	8.0	8.0	8.0	8.0
Nominal K Factor S.I. ¹		11.5	11.5	11.5	11.5	11.5	11.5
Response		Standard	Standard	Standard	Quick	Quick	Quick
Deflector Type		ECLH HSW	Recessed ECLH HSW Up to 1/2" Adjustment	Recessed ECLH HSW Up to 3/4" Adjustment	ECLH HSW	Recessed ECLH HSW Up to 1/2" Adjustment	Recessed ECLH HSW Up to 3/4" Adjustment
Room Size feet meters ²	Approvals/ Listings	Approved Temperature Ratings F°/C° ³					
16 × 16 4.9 × 4.9	CCC	–	–	–	155 68	155 68	155 68
	cULus	135 57	135 57	135 57	135 57	135 57	135 57
		155 68	155 68	155 68	155 68	155 68	155 68
		175 79	175 79	175 79	175 79	175 79	175 79
		200 93	200 93	200 93	200 93	200 93	200 93
		135 57	–	–	135 57	135 57	–
	FM	–	–	–	155 68	155 68	–
		–	–	–	–	–	–
	cULus	135 57	135 57	135 57	135 57	135 57	135 57
		155 68	155 68	155 68	155 68	155 68	155 68
16 × 18 4.9 × 5.5	CCC	–	–	–	155 68	155 68	155 68
	cULus	135 57	135 57	135 57	135 57	135 57	135 57
		155 68	155 68	155 68	155 68	155 68	155 68
		175 79	175 79	175 79	175 79	175 79	175 79
		200 93	200 93	200 93	200 93	200 93	200 93
	FM	135 57	–	–	135 57	135 57	–
		–	–	–	155 68	155 68	–
	cULus	135 57	135 57	135 57	135 57	135 57	135 57
		155 68	155 68	155 68	155 68	155 68	155 68
		175 79	175 79	175 79	175 79	175 79	175 79
16 × 20 4.9 × 6.1	CCC	–	–	–	155 68	155 68	155 68
	cULus	135 57	135 57	135 57	135 57	135 57	135 57
		155 68	155 68	155 68	155 68	155 68	155 68
		175 79	175 79	175 79	175 79	175 79	175 79
		200 93	200 93	200 93	200 93	200 93	200 93
	FM	135 57	–	–	135 57	135 57	–
		–	–	–	155 68	155 68	–
	cULus	135 57	135 57	135 57	135 57	135 57	135 57
		155 68	155 68	155 68	155 68	155 68	155 68
		175 79	175 79	175 79	175 79	175 79	175 79

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

² The width x length dimension refers to the width (backwall where the sprinkler is located) times the length (horizontal throw of sprinkler).

³ Listings and Approvals as of printing.

NOTE

- IGS connection is not allowed with recessed escutcheons.

2.0 CERTIFICATIONS/LISTINGS (CONTINUED)

APPROVALS/LISTINGS		Model					
		V3415	V3415	V3415	V3416	V3416	V3416
Orifice Size (inches)		1 ⁷ / ₃₂	1 ⁷ / ₃₂	1 ⁷ / ₃₂	1 ⁷ / ₃₂	1 ⁷ / ₃₂	1 ⁷ / ₃₂
Orifice Size (mm)		14	14	14	14	14	14
Nominal K Factor Imperial		8.0	8.0	8.0	8.0	8.0	8.0
Nominal K Factor S.I. ¹		11.5	11.5	11.5	11.5	11.5	11.5
Response		Standard	Standard	Standard	Quick	Quick	Quick
Deflector Type		ECLH HSW	Recessed ECLH HSW Up to ½" Adjustment	Recessed ECLH HSW Up to ¾" Adjustment	ECLH HSW	Recessed ECLH HSW Up to ½" Adjustment	Recessed ECLH HSW Up to ¾" Adjustment
Room Size feet meters ²	Approvals/ Listings	Approved Temperature Ratings F°/C° ³					
16 × 22 4.9 × 6.7	CCC	–	–	–	155 68	155 68	155 68
	cULus	135 57	135 57	135 57	135 57	135 57	135 57
		–	–	–	155 68	155 68	155 68
		–	–	–	175 79	175 79	175 79
	FM	135 57	–	–	–	135 57	–
		–	–	–	155 68	155 68	–
16 × 24 4.9 × 7.3	CCC	–	–	–	155 68	155 68	155 68
	cULus	135 57	135 57	135 57	135 57	135 57	135 57
		155 68	–	–	–	–	–
		175 79	–	–	–	–	–
		200 93	–	–	–	–	–
	FM	135 57	–	–	135 57	135 57	–
		–	–	–	155 68	155 68	–

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

² The width x length dimension refers to the width (backwall where the sprinkler is located) times the length (horizontal throw of sprinkler).

³ Listings and Approvals as of printing.

NOTE

- IGS connection is not allowed with recessed escutcheons.

3.0 SPECIFICATIONS - MATERIAL

Deflector: Bronze

Bulb: Glass with glycerin solution

Bulb Nominal Diameter:

Standard: 5.0 mm

Quick Response: 3.0 mm

Load Screw: Bronze

Pip Cap: Bronze

Spring: Beryllium nickel

Seal: Teflon⁵ tape

Frame: Brass

Lodgement Spring: Stainless steel

Installation Wrench:

Open End: V34

Recessed: V34

Plain Brass

Chrome Plated

White Painted⁶

Custom Painted⁶

VC-250⁷

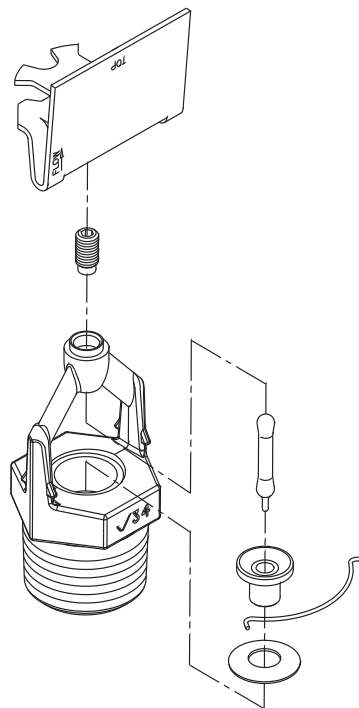
For escutcheons, boxes and other accessories refer to separate sheet.

NOTE: Weather resistant recessed escutcheons available upon request.

⁵ Teflon is a registered trademark of Dupont Co.

⁶ UL Listed for corrosion resistance.

⁷ UL Listed and FM Approved for corrosion resistance.

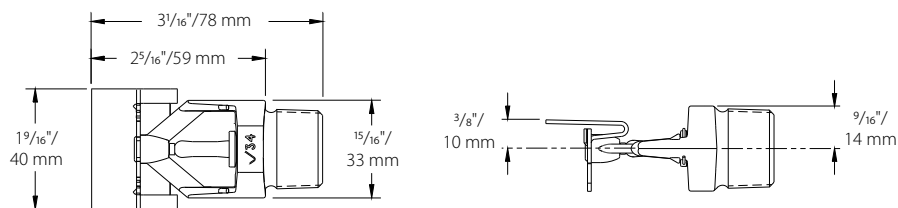


Exaggerated for clarity

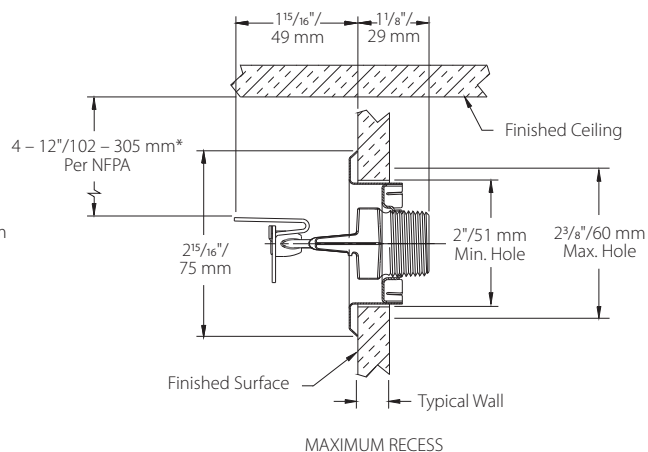
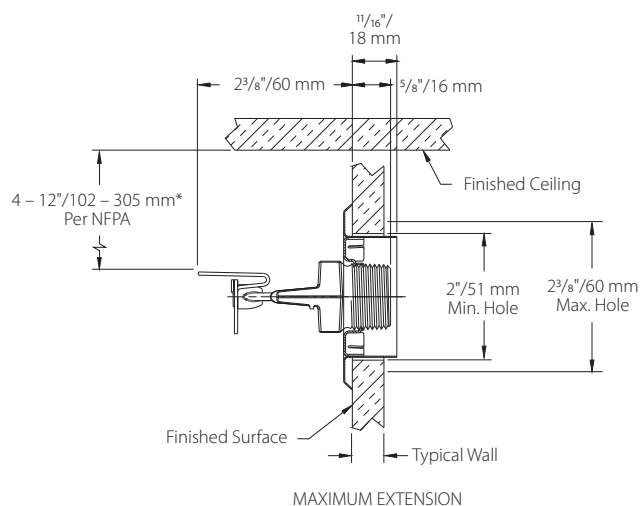
Available Wrenches:

	V34 Recessed	V34 Open End
No escutcheon	Yes	Yes
With escutcheon	Yes	—

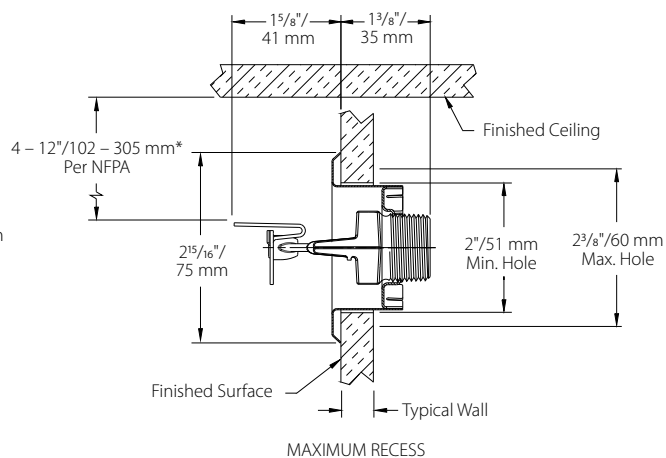
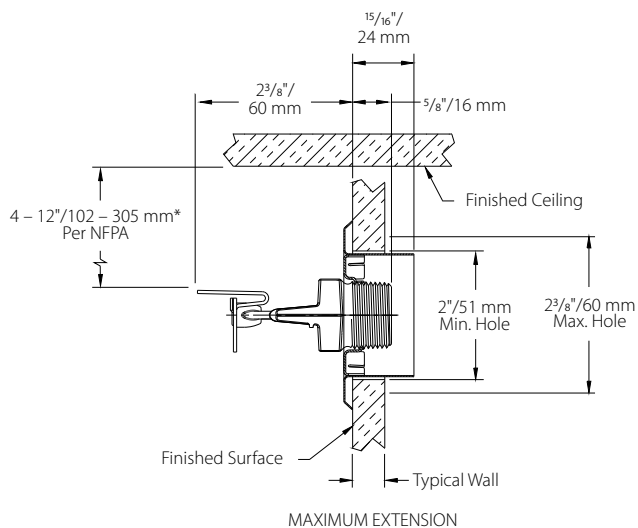
4.0 DIMENSIONS



Standard HSW –
V3415, V3416



$\frac{1}{2}''$ Adjustment Recessed –
V3415, V3416
(drawings not to scale)



$\frac{3}{4}''$ Adjustment Recessed –
V3415, V3416
(drawings not to scale)

5.0 PERFORMANCE

Sprinkler Performance Flow And Pressure (Minimum) V3415, V3416						
Room ⁸ Size	Flow Rate GPM/LPM			End Sprinkler Pressure PSI/kPa		
Ft. x Ft. m x m	FM	UL inches mm		FM	UL inches mm	
		4 – 6 ⁹ 152.4 – 304.8	6 – 12 ⁹ 101.6 – 152.4		4 – 6 ⁹ 152.4 – 304.8	6 – 12 ⁹ 101.6 – 152.4
16 x 16 4.9 x 4.9	32 121	26 98	28 106	16 110	10.6 73	12.3 85
16 x 18 4.9 x 5.5	36 136	29 110	33 125	20 140	13.2 91	17.1 118
16 x 20 4.9 x 6.1	40 151	32 121	35 132	25 170	16 110	19.2 132
16 x 22 4.9 x 6.7	44 167	36 136	36 136	30 205	20.3 140	20.3 140
16 x 24 4.9 x 7.3	48 182	39 148	41 155	36 250	23.8 164	26.3 181

⁸ The width x length dimension refers to the width (backwall where the sprinkler is located) times the length (horizontal throw of sprinkler).

⁹ Deflector distance below ceiling

Response	Minimum Installation Spacing Feet/meters
V3415 - Standard	8.0 2.4
V3416 - Quick	8.0 2.4

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 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.

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 REFERENCES

[I-40: Victaulic FireLock® Automatic Sprinklers](#)

[10.65: FireLock IGS Installation-Ready Style V9 Sprinkler Coupling](#)

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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