V34, K8.0

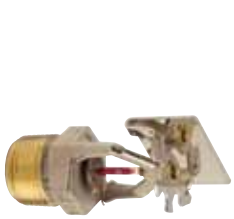
SEE VICTAULIC PUBLICATION 10.01 FOR DETAILS

Extended Coverage/Light Hazard (ECLH) Horizontal Sidewall and
Recessed Horizontal Sidewall Standard and Quick Response

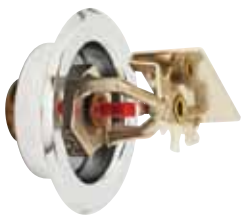
V3415 STANDARD RESPONSE, V3416 QUICK RESPONSE

These Model V34 ECLH horizontal sidewall sprinklers are designed with a large orifice to minimize operating pressures while providing extended coverage light hazard protection. The design incorporates state-of-the-art, heat responsive, frangible glass bulb design (standard or quick response) for prompt, precise operation.

The die cast frame is more streamlined and attractive than traditional sand cast frames. It is cast with a hex-shaped wrench boss to allow easy tightening from many angles, reducing assembly effort. This sprinkler is available in various temperature ratings (see chart on page 2) and finishes to meet many design requirements.



STANDARD HORIZONTAL SIDEWALL (V3415 AND V3416)



RECESSED HORIZONTAL SIDEWALL (V3415 AND V3416)

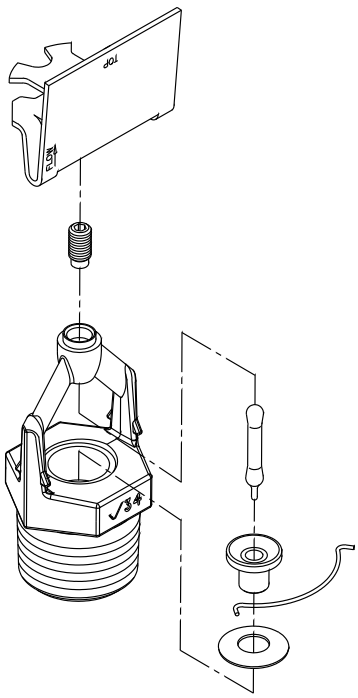
SPRINKLER OPERATION:

The operating mechanism is a frangible glass bulb which contains a heat responsive liquid. During a fire, the ambient temperature rises causing the liquid in the bulb to expand. When the ambient temperature reaches the rated temperature of the sprinkler, the bulb shatters. As a result, the waterway is cleared of all sealing parts and water is discharged towards the deflector. The deflector is designed to distribute the water in a pattern that is most effective in controlling the fire.

COVERAGE:

Extended spray coverage is up to 384 square feet/35.7 sq. m per NFPA 13.

TECHNICAL SPECIFICATIONS:



(Exaggerated for clarity)

Models: V3415, V3416
Style: ECLH – Horizontal Sidewall or Recessed Horizontal Sidewall
Nominal Orifice Size: ½"/14 mm
K-Factor: 8.0 Imp./11.5 S.I.^
Nominal Thread Size: ¾" NPT/20 mm
Max. Working Pressure: 175 psi/1200 kPa
Factory Hydrostatic Test: 100% @ 500 psi/3450 kPa
Min. Operating Pressure: 7 psi/48 kPa
Temperature Rating: See chart on page 2.

MATERIAL SPECIFICATIONS
Deflector: UNS C51000
Bulb: Glass with glycerin solution
Bulb Nominal Diameter:
- Standard: 5.0 mm
- Quick Response: 3.0 mm

Load Screw: UNS C65100
Pip Cap: UNS C65100
Spring Beryllium nickel
Seal: Teflon* tape
Frame: Die cast brass 65-30
Lodgement Spring: UNS S30200

ACCESSORIES
Installation Wrench:
- Open End: V34
- Recessed: V34

Sprinkler Finishes:
- Plain brass
- Chrome plated
- White painted**
- Custom painted**
- Proprietary Nickel Teflon* Coated**

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

NOTE: Weather resistant recessed escutcheon available upon request.

^ For K-Factor when pressure is measured in Bar, multiply S.I. units by 10.0.
* Teflon is a registered trademark of Dupont Co.
** UL Listed for corrosion resistance in all configurations.

JOB/OWNER
System No. _____
Location _____

CONTRACTOR
Submitted By _____
Date _____

ENGINEER
Spec Sect _____ Para _____
Approved _____
Date _____

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V34, K8.0

Extended Coverage/Light Hazard (ECLH) Horizontal Sidewall and
Recessed Horizontal Sidewall Standard and Quick Response

V3415 STANDARD RESPONSE, V3416 QUICK RESPONSE

APPROVALS/LISTINGS

Model	Orifice Size	Nominal K-Factor	Response	Deflector Type	Approved Temperature Ratings ‡ (Refer to notes below.)				
					Room Size Feet/meters				
	Inches/mm	Imperial S.I.^			16 × 16 4.9 × 4.9	16 × 18 4.9 × 5.5	16 × 20 4.9 × 6.1	16 × 22 4.9 × 6.7	16 × 24 4.9 × 7.3
V3415	½ 14	8.0 11.5	Standard	ECLH HSW	1 – C 2 – A	1 – C 2 – A	1 – C 2 – A	1 – A 2 – A	1 – A 2 – A
V3415	½ 14	8.0 11.5	Standard	Recessed ECLH HSW Up to ½" Adjustment	1 – C	1 – C	1 – C	1 – A	1 – A
V3415	½ 14	8.0 11.5	Standard	Recessed ECLH HSW Up to ¾" Adjustment	1 – C	1 – C	1 – C	1 – A	1 – A
V3416	½ 14	8.0 11.5	Quick	ECLH HSW	1 – C 2 – D	1 – C 2 – D	1 – C 2 – D	1 – A.B 2 – D	1 – A 2 – D
V3416	½ 14	8.0 11.5	Quick	Recessed ECLH HSW Up to ½" Adjustment	1 – C 2 – A. E*	1 – C 2 – A. E*	1 – C 2 – A. E*	1 – A.B 2 – A. E*	1 – A 2 – A. E*
V3416	½ 14	8.0 11.5	Quick	Recessed ECLH HSW Up to ¾" Adjustment	1 – C	1 – C	1 – C	1 – A.B	1 – A

‡ Listings and approval as of printing.

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

*Approved by FM as standard response.

APPROVED TEMPERATURE RATINGS

Approval	Temperature Rating, Deflector to Ceiling
1 – UL/ULC	A – 135°F/57°C, 4 – 12"/102 – 305mm
2 – FM	B – 135°F/57°C to 175°F/79°C, 4 – 6"/102 – 152mm
3 – NYC/MEA †	C – 135°F/57°C to 200°F/93°C, 4 – 12"/102 – 305mm
4 – CSFM §	D – 135°F/57°C to 155°F/68°C, 4 – 12"/102 – 305mm
	E – 155°F/68°C, 4 – 12"/102 – 305mm

† MEA Pending

§ CSFM Pending

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V34, K8.0

Extended Coverage/Light Hazard (ECLH) Horizontal Sidewall and Recessed Horizontal Sidewall Standard and Quick Response

V3415 STANDARD RESPONSE, V3416 QUICK RESPONSE

RATINGS

All glass bulbs are rated for temperatures from -67°F/-55°C to those shown in table below.

Sprinkler Temperature Classification	Victaulic Part Identification	Temperature – °F/°C		Glass Bulb Color
		Nominal Temperature Rating	Maximum Ambient Temperature Allowed	
Ordinary	A	135 57	100 38	Orange
Ordinary	C	155 68	100 38	Red
Intermediate	E	175 79	150 65	Yellow
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	
Sprinkler Finish	
Escutcheon Finish	
Wrench Model Number	

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V34, K8.0

Extended Coverage/Light Hazard (ECLH) Horizontal Sidewall and
Recessed Horizontal Sidewall Standard and Quick Response

V3415 STANDARD RESPONSE, V3416 QUICK RESPONSE

WARNING

⚠ 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 USA, Telephone: 001-610-559-3300.

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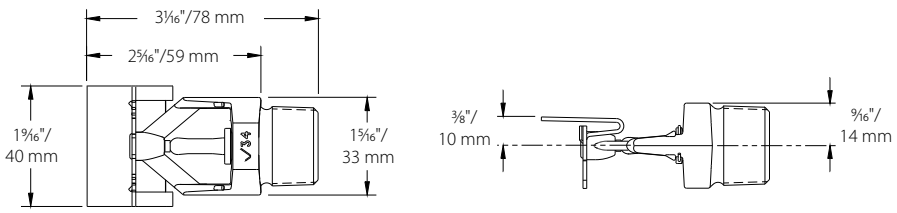
V34, K8.0

Extended Coverage/Light Hazard (ECLH) Horizontal Sidewall and
Recessed Horizontal Sidewall Standard and Quick Response

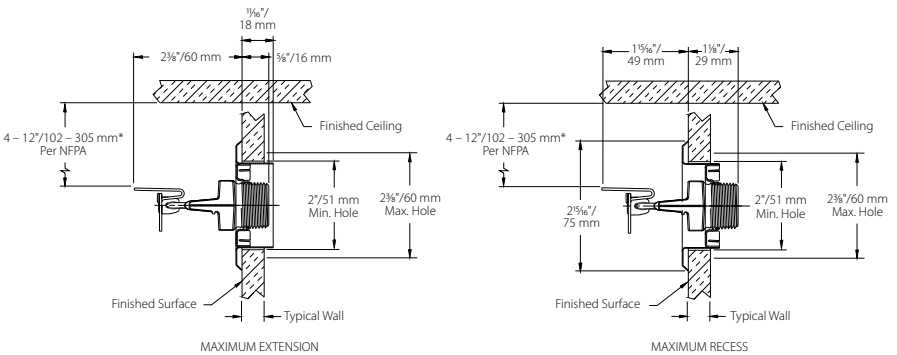
V3415 STANDARD RESPONSE, V3416 QUICK RESPONSE

DIMENSIONS

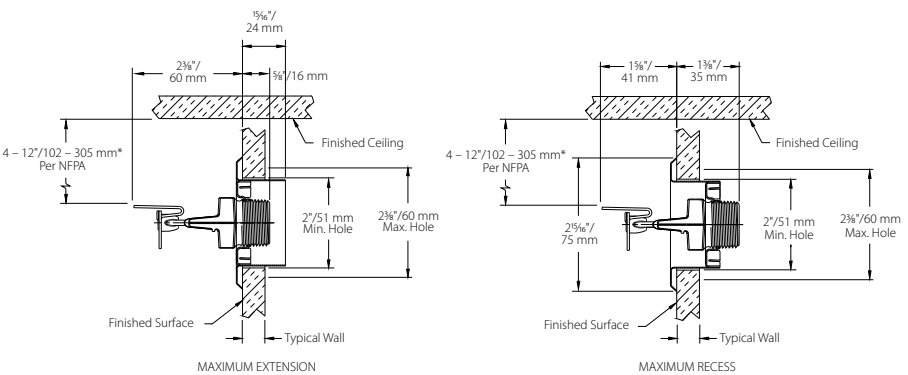
Standard HSW – V3415, V3416



½" Adjustment Recessed – V3415, V3416 (drawing not to scale)



¾" Adjustment Recessed – V3415, V3416 (drawing not to scale)



*See "Approvals/Listings" chart on page 2 for allowable deflector to ceiling heights.

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V34, K8.0

Extended Coverage/Light Hazard (ECLH) Horizontal Sidewall and Recessed Horizontal Sidewall Standard and Quick Response

V3415 STANDARD RESPONSE, V3416 QUICK RESPONSE

AVAILABLE WRENCHES

Sprinkler Type	V34 – Recessed	V34 – Open End
No escutcheon	yes	yes
With escutcheon	yes	—

ROOM SIZE

SPRINKLER PERFORMANCE FLOW AND PRESSURE (MINIMUM) – V3415, V3416						
Room Size Feet/m	Flow Rate – GPM/LPM			End Sprinkler Pressure – PSI/kPa		
		UL			UL	
	FM	4 – 6"	6 – 12"	FM	4 – 6"	6 – 12"
16 × 16 4.9 × 4.9	32 121	26 98	28 106	16 110	10.6 73	12.3 85
16 × 18 4.9 × 5.5	36 136	29 110	33 125	20 140	13.2 91	17.1 118
16 × 20 4.9 × 6.1	40 151	32 121	35 132	25 170	16 110	19.2 132
16 × 22 4.9 × 6.7	44 167	36 136	36 136	30 205	20.3 140	20.3 140
16 × 24 4.9 × 7.3	48 182	39 148	41 155	36 250	23.8 164	26.3 181

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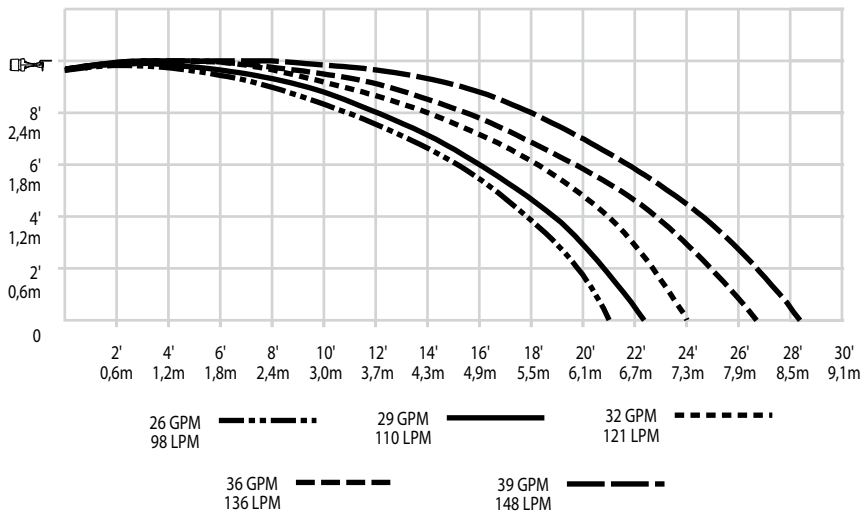
V34, K8.0

Extended Coverage/Light Hazard (ECLH) Horizontal Sidewall and
Recessed Horizontal Sidewall Standard and Quick Response

V3415 STANDARD RESPONSE, V3416 QUICK RESPONSE

DISTRIBUTION PATTERNS

Models V3415, V3416
K8.0 Extended Coverage/Light Hazard (ECLH)
Horizontal Sidewall And Recessed Horizontal Sidewall Distribution Patterns – Trajectory



Response	Minimum Installation Spacing Feet/meters
V3415 –Standard	8ft (2.4m)
V3416 – Quick	8ft (2.4m)

NOTES:

1 Data shown is approximate and can vary due to differences in installation.

2 These graphs illustrate approximate trajectories, floor-wetting, and wall-wetting patterns for these specific Victaulic FireLock automatic sprinklers. They are provided as information for guidance in avoiding obstructions to sprinklers and should not be used as minimum sprinkler spacing rules for installation. Refer to the appropriate NFPA National Fire Code or the authority having jurisdiction for specific information regarding obstructions, spacing limitations and area of coverage requirements. Failure to follow these guidelines could adversely affect the performance of the sprinkler and will void all Listings, Approvals and Warranties.

3 All patterns are symmetrical to the centerline of the waterway.

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V34, K8.0

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V3415 STANDARD RESPONSE, V3416 QUICK RESPONSE

WARRANTY

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

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.

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