

FireLock® V34, K14.0

Models V3413 Standard Response, V3414 Quick Response

Extended Coverage/Light Hazard (ECLH) Pendent and Recessed Pendent

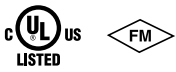


V3413/V3414
Pendent



V3413/V3414
Recessed Pendent

Approvals/Listings:



See Victaulic Publication [10.01](#) for more details.

Product Description:

These Model V34 ECLH sprinklers are designed with a K14.0 orifice size to provide added coverage at normal light hazard operating pressures. 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 4) and finishes to meet many design requirements.

Coverage

Extended spray coverage is up to 400 square feet/
37.2 sq. m per NFPA 13.

Technical Specifications:

Models: V3413, V3414

Style: ECLH – Pendent and Recessed Pendent

Nominal Orifice Size: 3/4" NPT/20 mm

K Factor: 14.0 Imp./20.2 S.I.²

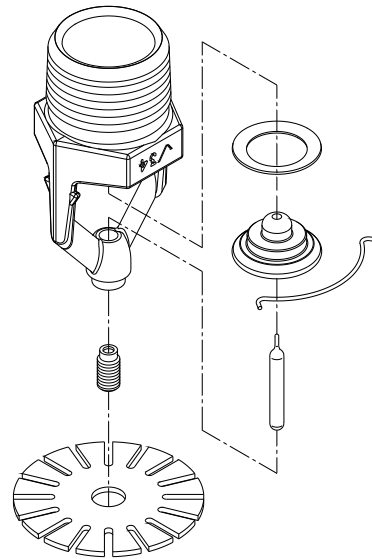
Nominal Thread Size: 3/4" NPT/20 mm

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 5.



Exaggerated for clarity

Job/Owner

| | |
|------------|--|
| System No. | |
| Location | |

Contractor

| | |
|--------------|--|
| Submitted By | |
| Date | |

Engineer

| | |
|--------------|--|
| Spec Section | |
| Paragraph | |
| Approved | |
| Date | |

Material Specifications:

Pendent Deflector: Bronze per UNS C51000
Bulb: Glass with glycerin solution
Bulb Nominal Diameter:
Standard Response: 5.0 mm
Quick Response: 3.0 mm
Load Screw: Bronze per UNS C65100
Pip Cap: Bronze per UNS C65100
Spring: Beryllium nickel
Seal: Teflon³ tape
Frame: Die cast brass 65-30
Lodgement Spring: Stainless steel per UNS S30200

Accessories:

Installation Wrench:

Open End: V34
Recessed: V34

Sprinkler Finishes:

Plain Brass
Chrome Plated
White Painted⁴
Black Painted⁴
Custom Painted⁴
Proprietary Nickel Teflon³ coating⁴
VC-250⁵

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

NOTE: Weather resistant recessed escutcheons available upon request.

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

³ Teflon is a registered trademark of Dupont Co.

⁴ UL Listed for corrosion resistance.

⁵ UL Listed and FM Approved for corrosion resistance

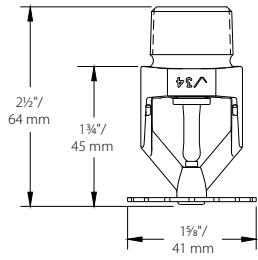
Approvals/Listings:

| APPROVALS/LISTINGS | Model | | | | | |
|-------------------------------------|--|--|--|--|--|--|
| | V3413 | V3413 | V3413 | V3414 | V3414 | V3414 |
| Orifice Size (inches) | ¾" | ¾" | ¾" | ¾" | ¾" | ¾" |
| Orifice Size (mm) | 20 | 20 | 20 | 20 | 20 | 20 |
| Nominal K Factor Imperial | 14.0 | 14.0 | 14.0 | 14.0 | 14.0 | 14.0 |
| Nominal K Factor S.I. ⁶ | 20.2 | 20.2 | 20.2 | 20.2 | 20.2 | 20.2 |
| Response | Standard | Standard | Standard | Quick | Quick | Quick |
| Deflector Type | Pendent | Recessed Pendent Up to ½" Adjustment | Recessed Pendent Up to ¾" Adjustment | Pendent | Recessed Pendent Up to ½" Adjustment | Recessed Pendent Up to ¾" Adjustment |
| Approved Temperature Ratings | F°/C° | | | | | |
| cULus 18 x 18' 5.5 x 5.5m | 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 | 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 | 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 18 x 18' 5.5 x 5.5m | 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 | None | None | None | None |
| cULus 20 x 20' 6.1 x 6.1m | 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 | 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 | 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 20 x 20' 6.1 x 6.1m | 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 | None | None | None | None |

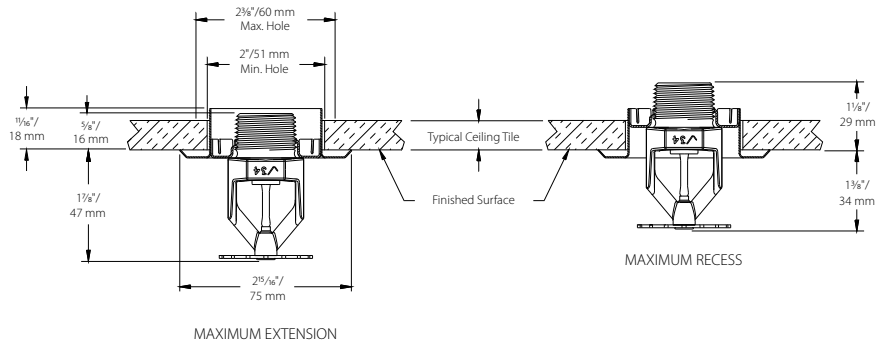
Note: Listings and approval as of printing. Not all temperature rating combinations are Approved or Listed. Check Victaulic for specific combinations.

⁶ For K-Factor when pressure is measured in Bar, multiply S.I. units by 10.

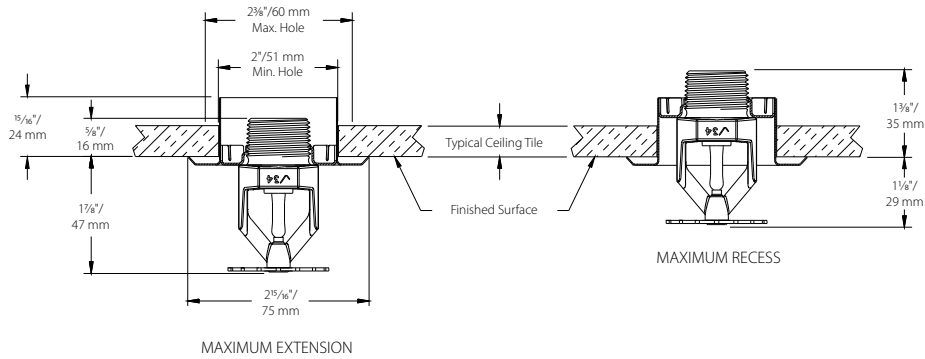
Dimensions:



Standard Pendant –
V3413, V3414



1/2" Adjustment Recessed –
V3413, V3414
(drawings not to scale)



3/4" Adjustment Recessed –
V3413, V3414
(drawings not to scale)

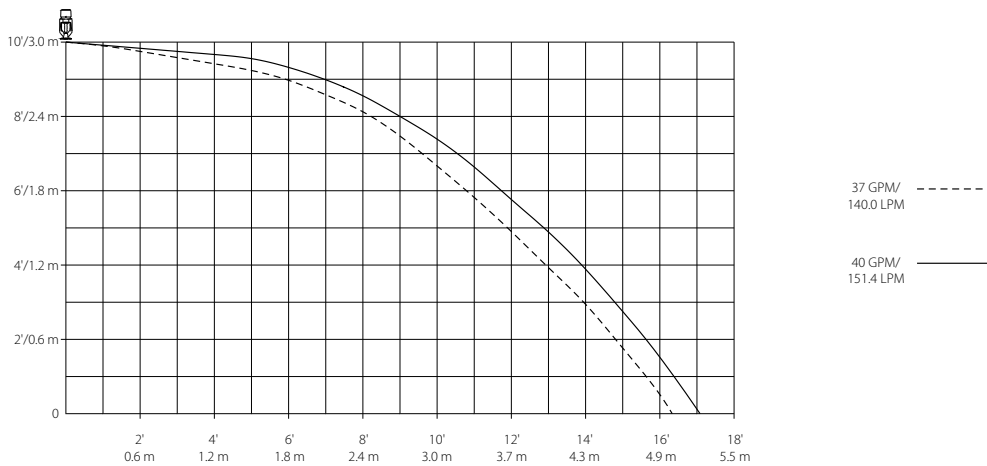
Room Size:

| Sprinkler Performance Flow And Pressure (Minimum) V3413, V3414 | | | | |
|---|-----------------------|-----------|-----------------------------------|---------|
| Room Size | Flow Rate GPML/LPM | | End Sprinkler Pressure PSI/kPa | |
| | FM ⁷ | UL | FM ⁷ | UL |
| 18 X 18 5.5 X 5.5 | 37 140 | 37 140 | 7 50 | 7 50 |
| 20 X 20 6.1 X 6.1 | 40 150 | 40 150 | 8 60 | 8 60 |

⁷ See page 3 for V3413 FM Approvals. V3414 is not FM Approved.

Distribution Patterns:

Models V3413, V3414
K14.0 ECLH Pendent and Recessed Pendent
Distribution Patterns – Trajectory



| Response | Minimum Installation Spacing Feet/meters |
|------------------|---|
| V3413 - Standard | 13.0 4.0 |
| V3414 - Quick | 12.0 3.7 |

NOTES:

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

B. 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.

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

Ratings:




All glass bulbs are rated for temperatures from -67°F (-55°C) up to those shown in adjacent table.

| Sprinkler Temperature Classification | Victaulic Part Identification | Temperature – °F/°C | | Glass Bulb Color |
|--------------------------------------|-------------------------------|----------------------------|-------------------------------------|------------------|
| | | Nominal Temperature Rating | Maximum Ambient Temperature Allowed | |
| Ordinary | A | 135°F/57°C | 100°F/38°C | Orange |
| Ordinary | C | 155°F/68°C | 100°F/38°C | Red |
| Intermediate | E | 175°F/79°C | 150°F/65°C | Yellow |
| Intermediate | F | 200°F/93°C | 150°F/65°C | Green |
| Extra High | K | 360°F/182°C | 300°F/149°C | Purple |
| – | M | Open | – | No Bulb |

Available Wrenches:

| | V34 Recessed | V34 Open End |
|------------------|--------------|--------------|
| Pendent | ✓ | ✓ |
| Recessed Pendent | ✓ | – |

⚠ 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.

Installation

Reference should always be made to the I-40 Victaulic FireLock Automatic Sprinklers Installation and Maintenance Sheet for the product you are installing. This installation sheet is included with each shipment of Victaulic products for complete installation and assembly data, and is 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.

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.

Trademarks

Victaulic is a registered trademark of Victaulic Company.