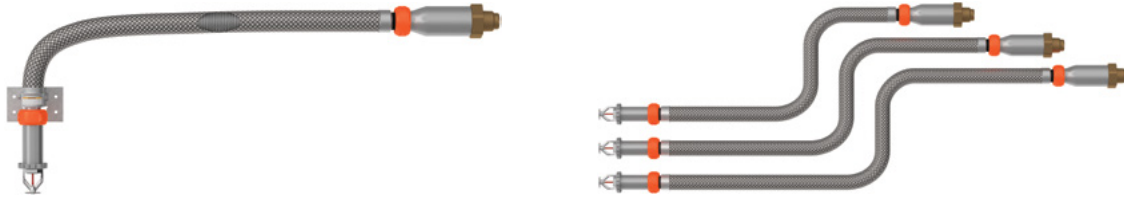


# Victaulic® VicFlex™ Series FL-DRY/VS1

## Dry, Quick/Standard Response Sprinklers, K5.6 (80)



10.91



### 1.0 PRODUCT DESCRIPTION

STANDARD RESPONSE SLEEVE AND SKIRT PENDENT SPRINKLER	
SIN	V3505
ORIENTATION	Pendent
NOMINAL K-FACTOR/METRIC K-FACTOR	5.6/80
RESPONSE	Standard
CONNECTION	1" NPT/25 mm BSPT
MAX. WORKING PRESSURE	175 psi (1200 kPa)
ESCUTCHEON	Sleeve and Skirt
LENGTHS	38"/965 mm, 50"/1270 mm and 58"/1473 mm

STANDARD RESPONSE RECESSED PENDENT SPRINKLER	
SIN	V3505
ORIENTATION	Pendent
NOMINAL K-FACTOR/METRIC K-FACTOR	5.6/80
RESPONSE	Standard
CONNECTION	1" NPT/25 mm BSPT
MAX. WORKING PRESSURE	175 psi (1200 kPa)
ESCUTCHEON	Recessed
LENGTHS	38"/965 mm, 50"/1270 mm and 58"/1473 mm

QUICK RESPONSE SLEEVE AND SKIRT PENDENT SPRINKLER	
SIN	V3506
ORIENTATION	Pendent
NOMINAL K-FACTOR/METRIC K-FACTOR	5.6/80
RESPONSE	Quick
CONNECTION	1" NPT/25mm BSPT
MAX. WORKING PRESSURE	175 psi (1200 kPa)
ESCUTCHEON	Sleeve and Skirt
LENGTHS	38"/965 mm, 50"/1270 mm and 58"/1473 mm

QUICK RESPONSE RECESSED PENDENT SPRINKLER	
SIN	V3506
ORIENTATION	Pendent
NOMINAL K-FACTOR/METRIC K-FACTOR	5.6/80
RESPONSE	Quick
CONNECTION	1" NPT/25mm BSPT
MAX. WORKING PRESSURE	175 psi (1200 kPa)
ESCUTCHEON	Recessed
LENGTHS	38"/965 mm, 50"/1270 mm and 58"/1473 mm

STANDARD RESPONSE SLEEVE AND SKIRT HORIZONTAL SIDEWALL SPRINKLER	
SIN	V3509
ORIENTATION	Horizontal Sidewall
NOMINAL K-FACTOR/METRIC K-FACTOR	5.6/80
RESPONSE	Standard
CONNECTION	1" NPT/25mm BSPT
MAX. WORKING PRESSURE	175 psi (1200 kPa)
ESCUTCHEON	Sleeve and Skirt
LENGTHS	38"/965 mm, 50"/1270 mm and 58"/1473 mm

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



## 1.0 PRODUCT DESCRIPTION (CONTINUED)

STANDARD RESPONSE RECESSED HORIZONTAL SIDEWALL SPRINKLER	
SIN	V3509
ORIENTATION	Horizontal Sidewall
NOMINAL K-FACTOR/METRIC K-FACTOR	5.6/80
RESPONSE	Standard
CONNECTION	1" NPT/25 mm BSPT
MAX. WORKING PRESSURE	175 psi (1200 kPa)
ESCUTCHEON	Recessed
LENGTHS	38"/965 mm, 50"/1270 mm and 58"/1473 mm

QUICK RESPONSE SLEEVE AND SKIRT HORIZONTAL SIDEWALL SPRINKLER	
SIN	V3510
ORIENTATION	Horizontal Sidewall
NOMINAL K-FACTOR/METRIC K-FACTOR	5.6/80
RESPONSE	Quick
CONNECTION	1" NPT/25mm BSPT
MAX. WORKING PRESSURE	175 psi (1200 kPa)
ESCUTCHEON	Sleeve and Skirt
LENGTHS	38"/965 mm, 50"/1270 mm and 58"/1473 mm

QUICK RESPONSE RECESSED HORIZONTAL SIDEWALL SPRINKLER	
SIN	V3510
ORIENTATION	Horizontal Sidewall
NOMINAL K-FACTOR/METRIC K-FACTOR	5.6/80
RESPONSE	Quick
CONNECTION	1" NPT/25mm BSPT
MAX. WORKING PRESSURE	175 psi (1200 kPa)
ESCUTCHEON	Recessed
LENGTHS	38"/965 mm, 50"/1270 mm and 58"/1473 mm

STANDARD RESPONSE CONCEALED PENDENT SPRINKLER	
SIN	V3517
ORIENTATION	Concealed Pendent
NOMINAL K-FACTOR/METRIC K-FACTOR	5.6/80
RESPONSE	Standard
CONNECTION	1" NPT/25mm BSPT
MAX. WORKING PRESSURE	175 psi (1200 kPa)
ESCUTCHEON	Concealed
LENGTHS	38"/965 mm, 50"/1270 mm and 58"/1473 mm

QUICK RESPONSE CONCEALED PENDENT SPRINKLER	
SIN	V3518
ORIENTATION	Concealed Pendent
NOMINAL K-FACTOR/METRIC K-FACTOR	5.6/80
RESPONSE	Quick
CONNECTION	1" NPT/25mm BSPT
MAX. WORKING PRESSURE	175 psi (1200 kPa)
ESCUTCHEON	Concealed
LENGTHS	38"/965 mm, 50"/1270 mm and 58"/1473 mm

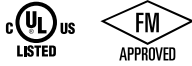
AVAILABLE GUARDS	
SPRINKLER	V34
PENDENT	■
SIDEWALL	■

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

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

**Temperature Rating:** See tables in [Section 2.0](#)

## 2.0 CERTIFICATION/LISTINGS



APPROVALS/LISTINGS						
SIN	V3505		V3506		V3509	
Nominal K Factor (gpm/(psi) <sup>1/2</sup> )	5.6		5.6		5.6	
Metric K-Factor (lpm/(bar) <sup>1/2</sup> )	80		80		80	
Response	Standard		Quick		Standard	
Deflector Type	Sleeve and Skirt	Recessed	Sleeve and Skirt	Recessed	Sleeve and Skirt SW	Recessed SW
Approved Temperature Ratings F°/C°						
FM	135°F/57°C	135°F/57°C	135°F/57°C	135°F/57°C	135°F/57°C	135°F/57°C
	155°F/68°C	155°F/68°C	155°F/68°C	155°F/68°C	155°F/68°C	155°F/68°C
	175°F/79°C	175°F/79°C	175°F/79°C	175°F/79°C	175°F/79°C	175°F/79°C
	200°F/93°C	200°F/93°C	200°F/93°C	200°F/93°C	200°F/93°C	200°F/93°C
	286°F/141°C	–	200°F/93°C	200°F/93°C	286°F/141°C	–
cULus	135°F/57°C	135°F/57°C	135°F/57°C	135°F/57°C	135°F/57°C	135°F/57°C
	155°F/68°C	155°F/68°C	155°F/68°C	155°F/68°C	155°F/68°C	155°F/68°C
	175°F/79°C	175°F/79°C	175°F/79°C	175°F/79°C	175°F/79°C	175°F/79°C
	200°F/93°C	200°F/93°C	200°F/93°C	200°F/93°C	200°F/93°C	200°F/93°C
	286°F/141°C	286°F/141°C	286°F/141°C	286°F/141°C	286°F/141°C	286°F/141°C

APPROVALS/LISTINGS						
SIN	V3510		V3517 <sup>3</sup>	Cover Plate (V3517)	V3518 <sup>3</sup>	Cover Plate (V3518)
Nominal K Factor (gpm/(psi) <sup>1/2</sup> )	5.6		5.6	–	5.6	–
Metric K-Factor (lpm/(bar) <sup>1/2</sup> )	80		80	–	80	–
Response	Quick		Standard	–	Quick <sup>1</sup>	–
Deflector Type	Sleeve and Skirt SW	Recessed SW	Concealed	–	Concealed <sup>2</sup>	–
Approved Temperature Ratings F°/C°						
FM	135°F/57°C	135°F/57°C	–	–	135°F/57°C	135°F/57°C
	155°F/68°C	155°F/68°C	–	–	155°F/68°C	135°F/57°C
	175°F/79°C	175°F/79°C	–	–	175°F/79°C	165°F/74°C
	200°F/93°C	200°F/93°C	–	–	200°F/93°C	165°F/74°C
	–	–	–	–	–	–
cULus	135°F/57°C	135°F/57°C	135°F/57°C	135°F/57°C	135°F/57°C	135°F/57°C
	155°F/68°C	155°F/68°C	155°F/68°C	135°F/57°C	155°F/68°C	135°F/57°C
	175°F/79°C	175°F/79°C	175°F/79°C	165°F/74°C	175°F/79°C	165°F/74°C
	200°F/93°C	200°F/93°C	200°F/93°C	165°F/74°C	200°F/93°C	165°F/74°C
	286°F/141°C	286°F/141°C	200°F/93°C	165°F/74°C	200°F/93°C	165°F/74°C

<sup>1</sup> Model V3518 is a Standard Response FM sprinkler.

<sup>2</sup> Model V3518 is listed as a standard response UL sprinkler when installed in a clean room using a gasketed cover plate. Clean room gaskets are optional and ordered separately.

<sup>3</sup> These sprinklers are required to be vented. Installations with a pressurized air plenum above the housing is not permitted.

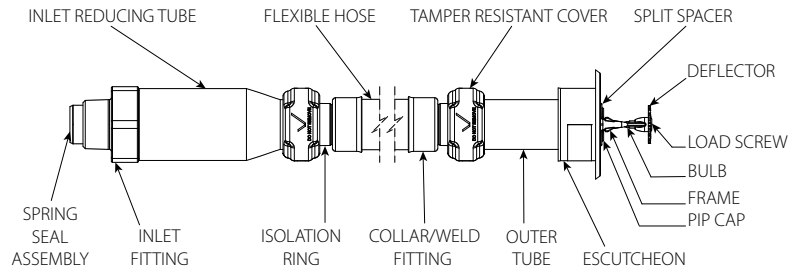
### NOTES

- Reference the specific agency website listing for the most up-to-date certification information.
- The VicFlex™ Series VS1/Style V35 has been tested and evaluated by Spears® for acceptable use with Spears® CPVC products and therefore is covered under the Spears® FlameGuard® Installer Protection Plan.
- For system design purposes, no equivalent length calculations are required.

MAXIMUM ALLOWABLE NUMBER OF BENDS			
Nominal Sprinkler Length	Maximum Allowable Number of 90° Bends at 2"/51 mm Bend Radius for UL Listing		Maximum Allowable Number of 90° Bends at 7"/178 mm Bend Radius for FM Approval
	inches	mm	
38.0		4	2
965			
50.0		4	3
1270			
58.0		4	4
1473			

Agency	Approved/Listed Bracket Styles	Approved/Listed Guards
UL	VB1, VB2, VB3, VB4	
FM	VB1, VB2, VB3, VB4, VB5, VBBA	V34

### 3.0 MATERIAL SPECIFICATIONS



**Deflector:** Brass

**Bulb Nominal Diameter:**

**Quick Response:** 3.0 mm

**Standard Response:** 5.0 mm

**Split Spacer:** Stainless Steel

**Load Screw:** Brass

**Pip Cap:** Stainless Steel

**Spring Seal Assembly:** PTFE coated Beryllium Nickel Alloy and Stainless Steel

**Frame:** Brass

**Guard (Optional):** Carbon Steel, Zinc-Plated

**Flexible Hose:** Stainless Steel

**Collar/Weld Fitting:** Stainless Steel

**Gasket Seal:** Victaulic EPDM

**Isolation Ring:** Nylon

**Hose Fittings:** Carbon Steel, Zinc-Plated

**Inlet Fitting:** Brass

**Outer Tube:** Stainless Steel

**Concealed Cup:** Carbon Steel, Zinc-Plated

**Concealed Cover Plate Gasket:** White Nitrile (Clean room use only)

**Brackets:** Carbon Steel, Zinc-Plated

**Escutcheon:** Stainless Steel

**Inlet Reducer Fitting:** Carbon Steel, Zinc-Plated

**Tamper Resistant Cover:** Polypropylene

### 3.1 ACCESSORIES SPECIFICATIONS

**Sprinkler Finishes:**

**Standard:** VC-250

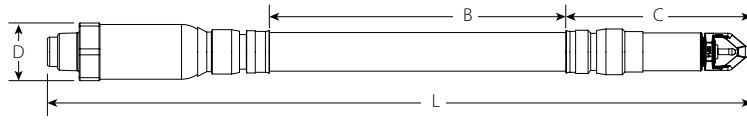
White Painted RAL 9010

Black

## 4.0 DIMENSIONS

### Product Details and Optional Components

#### Series VS1 Dry Sprinkler

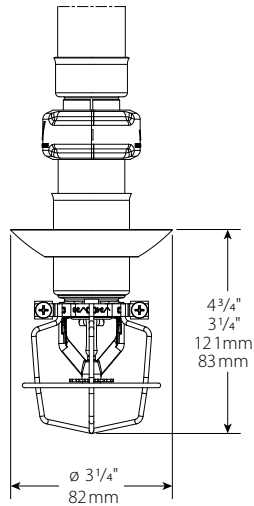


Sprinkler Length	Overall Length (pendent) L	Live Length B	Outlet End Length C	Maximum OD D
inches mm	inches mm	inches mm	inches mm	inches mm
38 965	39.2 995	25.1 638	6.5 165	2.2 56
50 1270	51.2 1300	37.1 943	6.5 165	2.2 56
58 1475	59.2 1505	45.1 1145	6.5 165	2.2 56

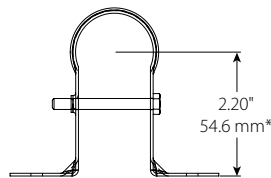
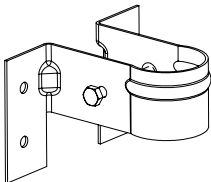
**NOTE**

- Add ½" to Overall Length and Outlet End Length for increased length of sidewall deflector

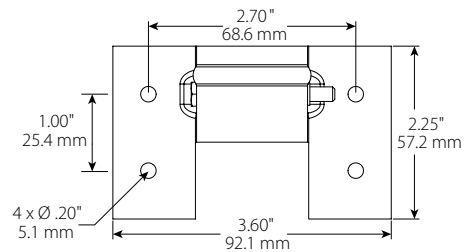
#### VS1 with Sprinkler Guard



#### Style VB1 Bracket



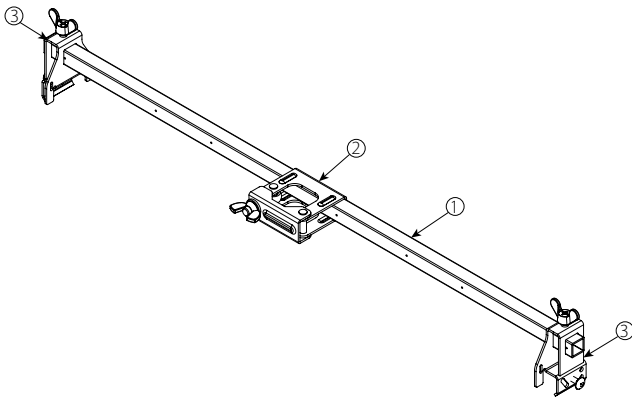
\*Note: Theoretical center point of sprinkler in bracket.



4.0 DIMENSIONS (CONTINUED)

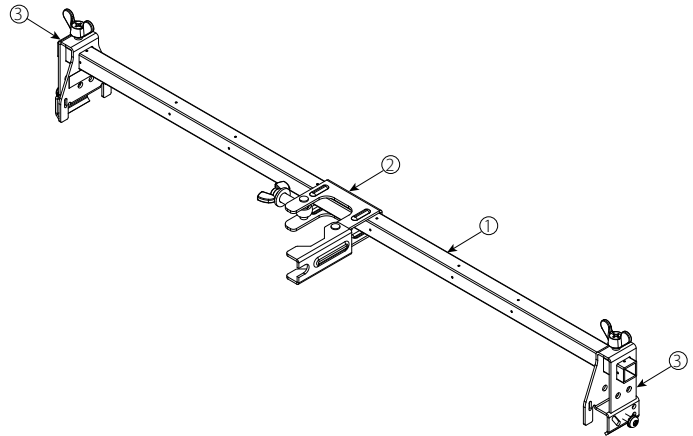
**Style VB2 Bracket**  
Recessed Pendant, Suspended Ceilings

Item	Description
1	24"/610 mm or 48"/1220 mm Square Bar
2	Center Bracket
3	End Bracket



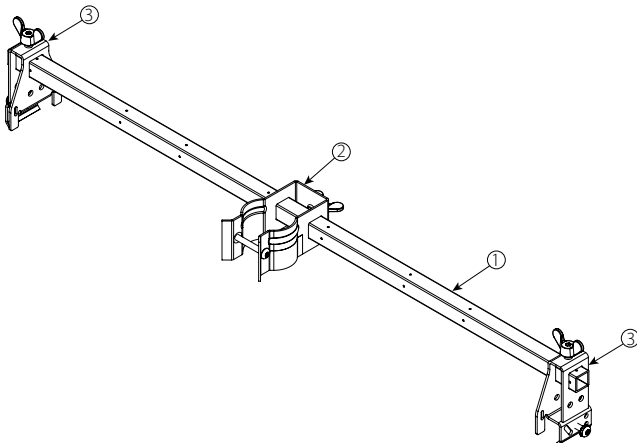
**Style VB3 Bracket**  
Concealed Pendant, Suspended Ceilings

Item	Description
1	24"/610 mm or 48"/1220 mm Square Bar
2	Center Bracket
3	End Bracket



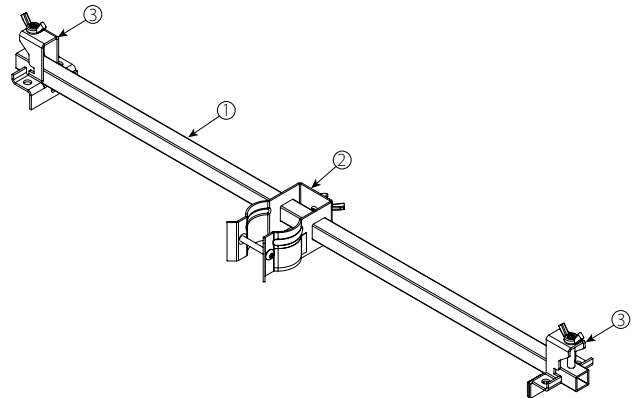
**Style VB4 Bracket**  
Sleeve and Skirt Pendant, Suspended Ceilings

Item	Description
1	24"/610 mm or 48"/1220 mm Square Bar
2	Center Bracket
3	End Bracket



**Style VB5 Bracket**  
Data Center Grid, Wood/Metal Joist

Item	Description
1	24"/610 mm or 48"/1220 mm Square Bar
2	Center Bracket
3	End Bracket

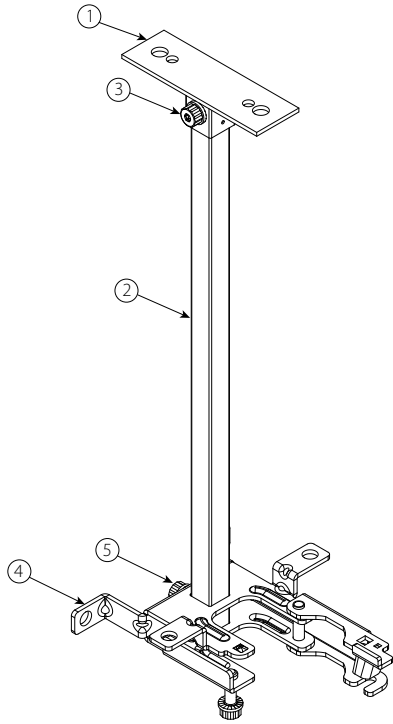


## 4.0 DIMENSIONS (CONTINUED)

### Style VBBA Bracket

#### Floor Above Mount, Cantilever Mount, Temporary Mount

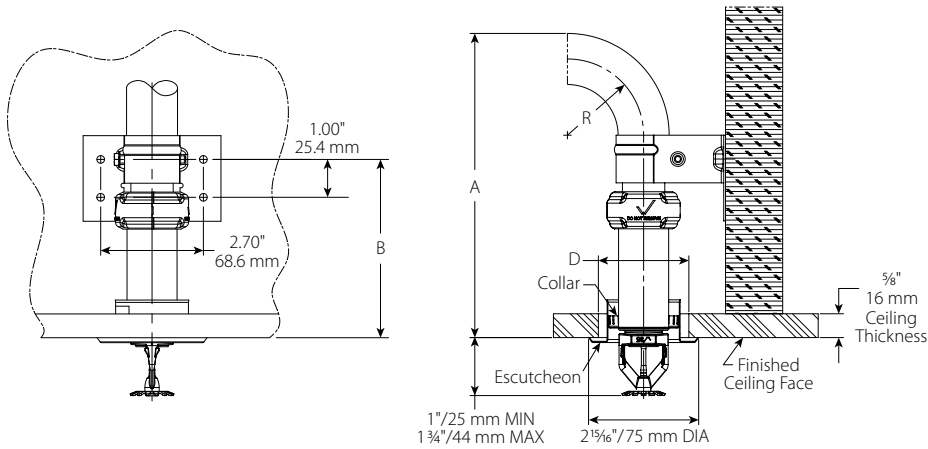
Item	Description
1	Mounting Plate
2	Square Bar
3	Cap Screw
4	Bracket Body
5	Cap Screw



## 4.1 DIMENSIONS

### Sprinkler Finishes: Dimensions and Mounting Conditions

#### Recessed Pendant:



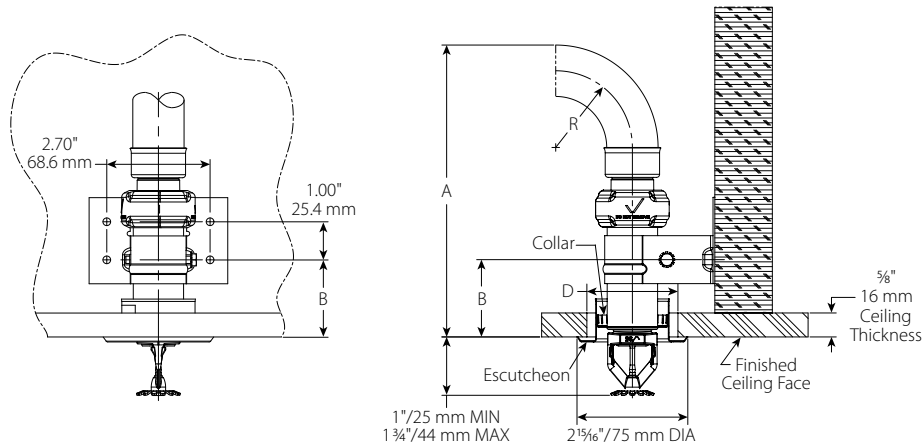
Hose Clearance			
Dimension		inches mm	
R	Bend Radius	2 51	7 178
A	Minimum Required Installation Space	7 5/8 193	12 5/8 320
B	Mounting Screw Hole Location	4 3/4 119	
D	Ceiling Hole Diameter	2 - 2 3/8 51 - 60	

#### NOTES

- Dimensions are shown with 3/4" escutcheon at middle of height adjustment range.
- Variations of ceiling grids, brackets, and sprinkler assemblies are permitted but may result in clearance differences from the figures above.

## 4.2 DIMENSIONS

### Recessed Pendant Alternative Bracket Location



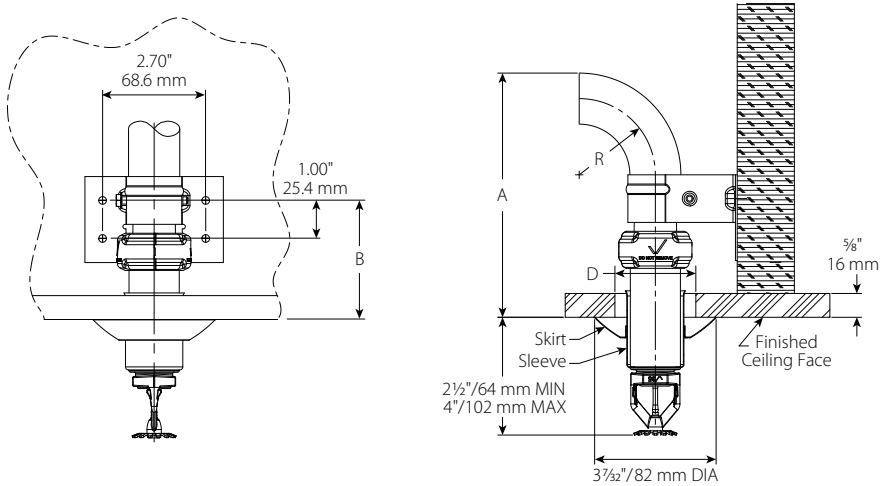
Hose Clearance			
Dimension		inches mm	
R	Bend Radius	2 51	7 178
A	Minimum Required Installation Space	7 5/8 193	12 5/8 320
B	Mounting Screw Hole Location	2 51	
D	Ceiling Hole Diameter	2 - 2 3/8 51 - 60	

#### NOTES

- Dimensions are shown with 3/4" escutcheon at middle of height adjustment range.
- Variations of ceiling grids, brackets, and sprinkler assemblies are permitted but may result in clearance differences from the figures above.

### 4.3 DIMENSIONS

#### Sleeve and Skirt Pendant



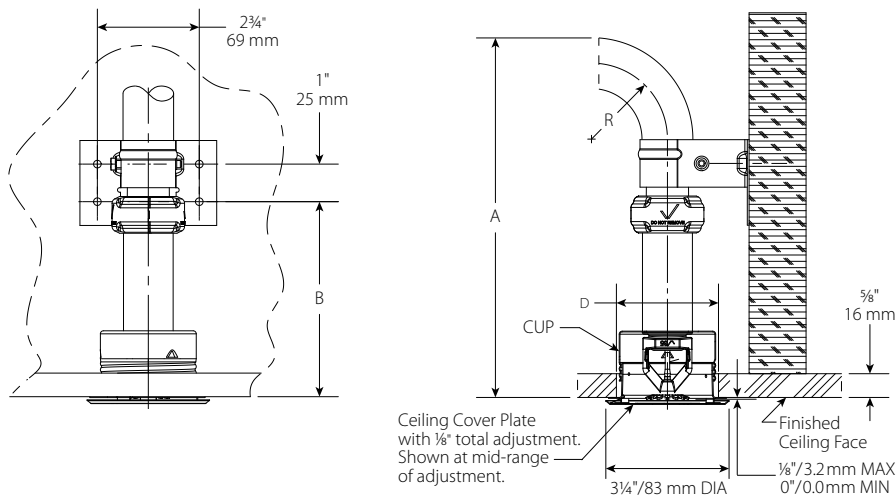
Hose Clearance			
Dimension	inches mm		
R	Bend Radius	2 51	7 178
A	Minimum Required Installation Space	6 1/2 163	11 1/2 290
B	Mounting Screw Hole Location	3 1/8 79	
D	Ceiling Hole Diameter	1 3/4 - 2 1/2 44 - 64	

**NOTE**

- Variations of ceiling grids, brackets, and sprinkler assemblies are permitted but may result in clearance differences from the figures above.

### 4.4 DIMENSIONS

#### Concealed Pendant



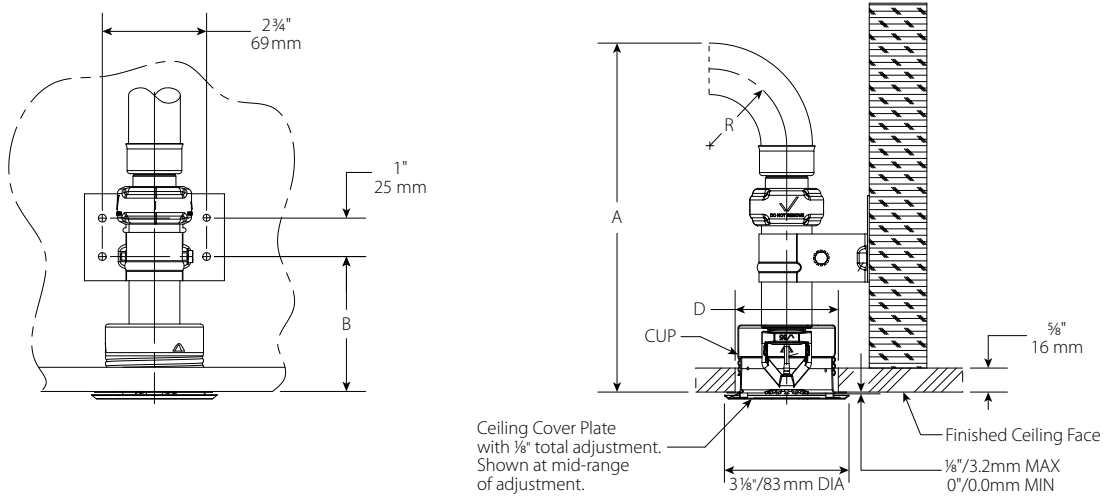
Hose Clearance			
Dimension	inches mm		
R	Bend Radius	2 51	7 178
A	Minimum Required Installation Space	9 1/2 241	14 1/2 369
B	Mounting Screw Hole Location	6 1/4 157	
D	Ceiling Hole Diameter	2 5/8 - 2 3/4 67 - 70	

**NOTE**

- Variations of ceiling grids, brackets, and sprinkler assemblies are permitted but may result in clearance differences from the figures above.

## 4.5 DIMENSIONS

### Concealed Pendent Alternative Bracket Location



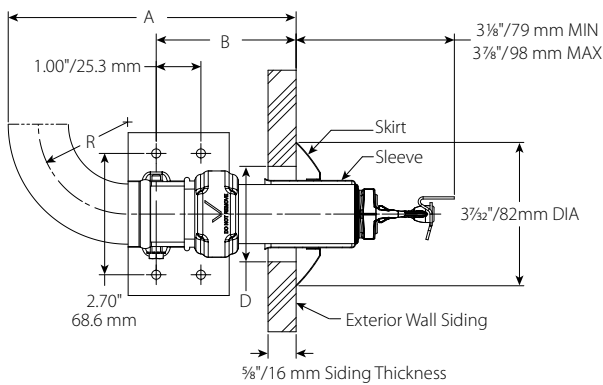
Hose Clearance			
Dimension		inches	mm
R	Bend Radius	2 51	7 178
A	Minimum Required Installation Space	9 7/8 231	14 1/8 358
B	Mounting Screw Hole Location	3 1/2 89	
D	Ceiling Hole Diameter	2 5/8 - 2 3/4 67 - 70	

**NOTE**

- Variations of ceiling grids, brackets, and sprinkler assemblies are permitted but may result in clearance differences from the figures above.

## 4.6 DIMENSIONS

### Sleeve and Skirt Sidewall



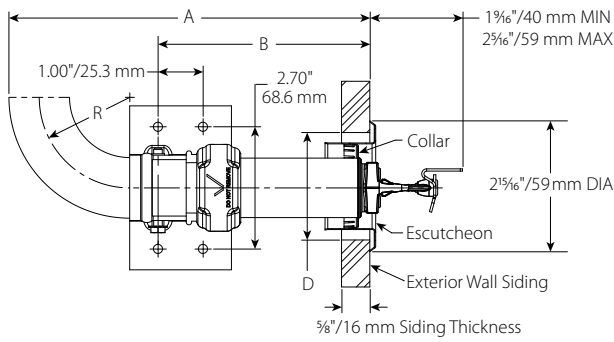
Hose Clearance			
Dimension		inches	mm
R	Bend Radius	2 51	7 178
A	Minimum Required Installation Space	6 1/2 163	11 1/2 290
B	Mounting Screw Hole Location	3 1/8 79	
D	Ceiling Hole Diameter	1 3/4 - 2 1/2 44 - 64	

**NOTE**

- Variations of ceiling grids, brackets, and sprinkler assemblies are permitted but may result in clearance differences from the figures above.

## 4.7 DIMENSIONS

### Recessed Sidewall



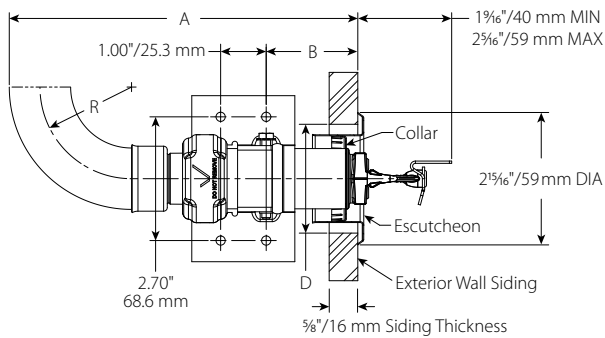
Hose Clearance			
Dimension		inches mm	
R	Bend Radius	2 51	7 178
A	Minimum Required Installation Space	8 203	13 330
B	Mounting Screw Hole Location	4 3/4 119	
D	Ceiling Hole Diameter	2 - 2 3/8 51 - 60	

**NOTE**

- Variations of ceiling grids, brackets, and sprinkler assemblies are permitted but may result in clearance differences from the figures above.

## 4.8 DIMENSIONS

### Recessed Sidewall Alternative Bracket Location



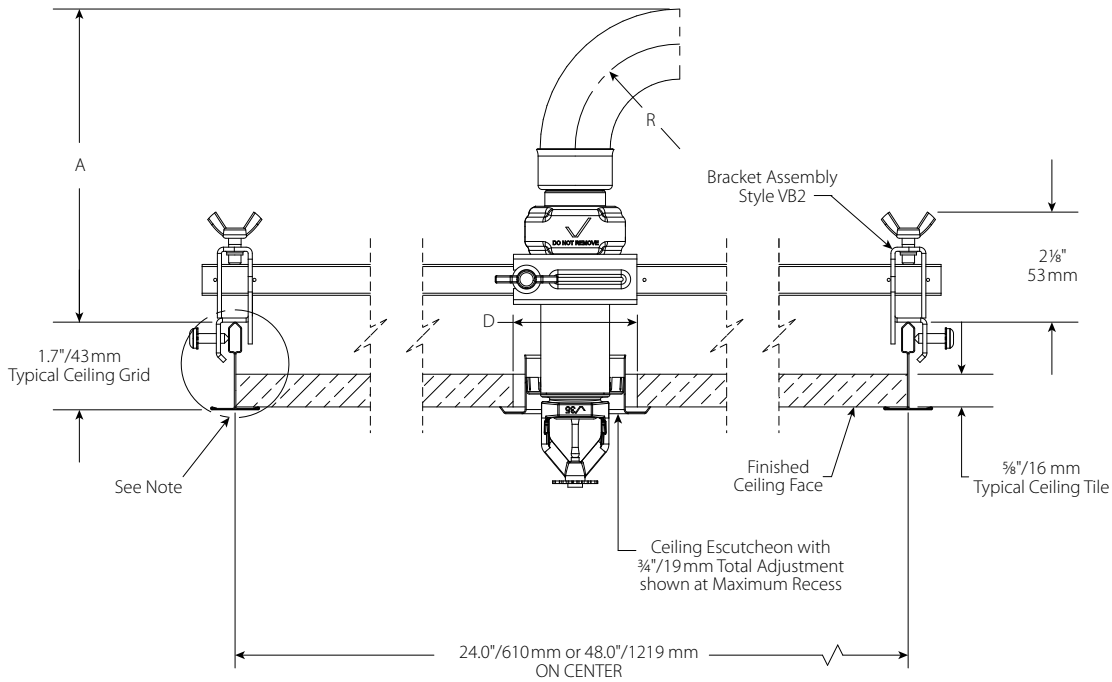
Hose Clearance			
Dimension		inches mm	
R	Bend Radius	2 51	7 178
A	Minimum Required Installation Space	8 203	13 330
B	Mounting Screw Hole Location	2 51	
D	Ceiling Hole Diameter	2 - 2 3/8 51 - 60	

**NOTE**

- Variations of ceiling grids, brackets, and sprinkler assemblies are permitted but may result in clearance differences from the figures above.

## 4.9 DIMENSIONS

### VB2 Recessed Pendant



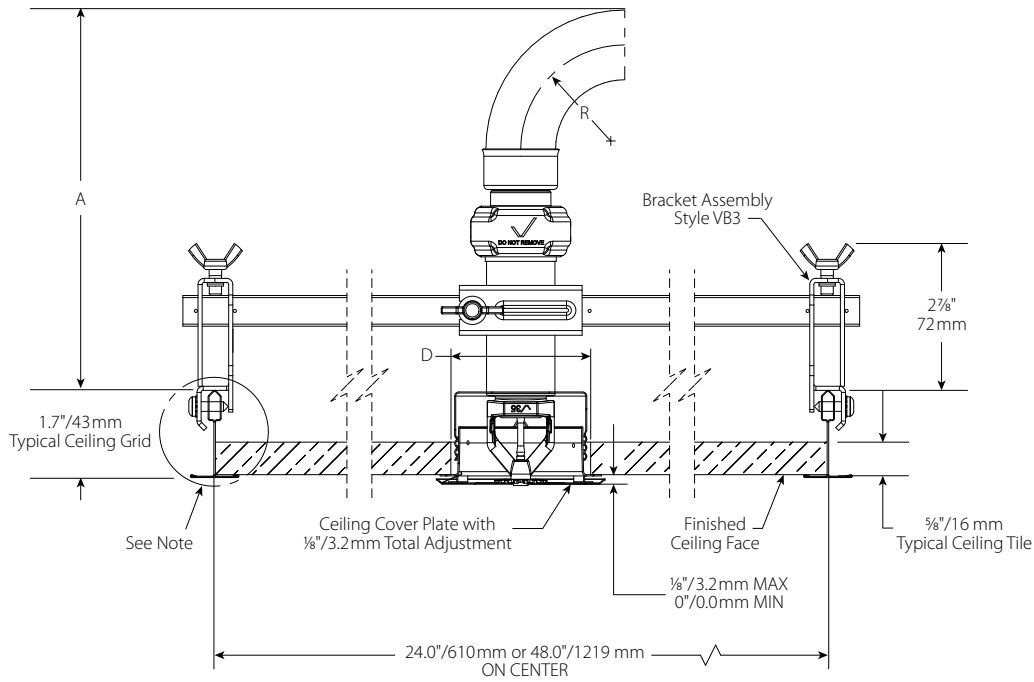
Hose Clearance			
Dimension		inches mm	
R	Bend Radius	2 51	7 178
A	Minimum Required Installation Space	6 1/2 163	11 1/2 290
D	Ceiling Hole Diameter	2 - 2 3/8 51 - 60	

**NOTE**

- Variations of ceiling grids, brackets, and sprinkler assemblies are permitted but may result in clearance differences from the figures above.

## 4.10 DIMENSIONS

### VB3 Concealed Pendent



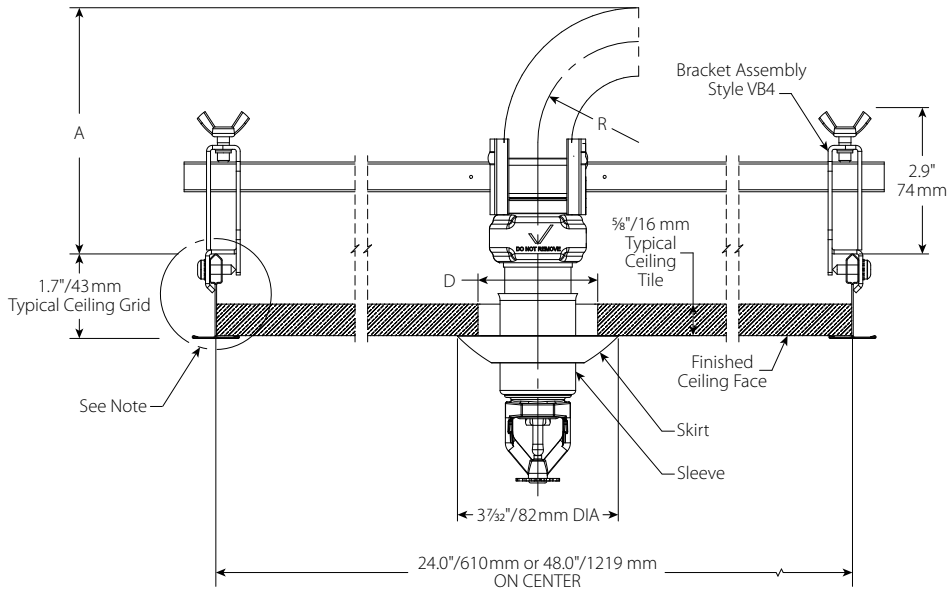
Hose Clearance			
Dimension		inches mm	
R	Bend Radius	2	7
		51	178
A	Minimum Required Installation Space	7 5/8	12 5/8
		193	320
D	Ceiling Hole Diameter	2 5/8 – 2 3/4	
		67 – 70	

**NOTE**

- Variations of ceiling grids, brackets, and sprinkler assemblies are permitted but may result in clearance differences from the figures above.

## 4.11 DIMENSIONS

### VB4 Sleeve and Skirt Pendant



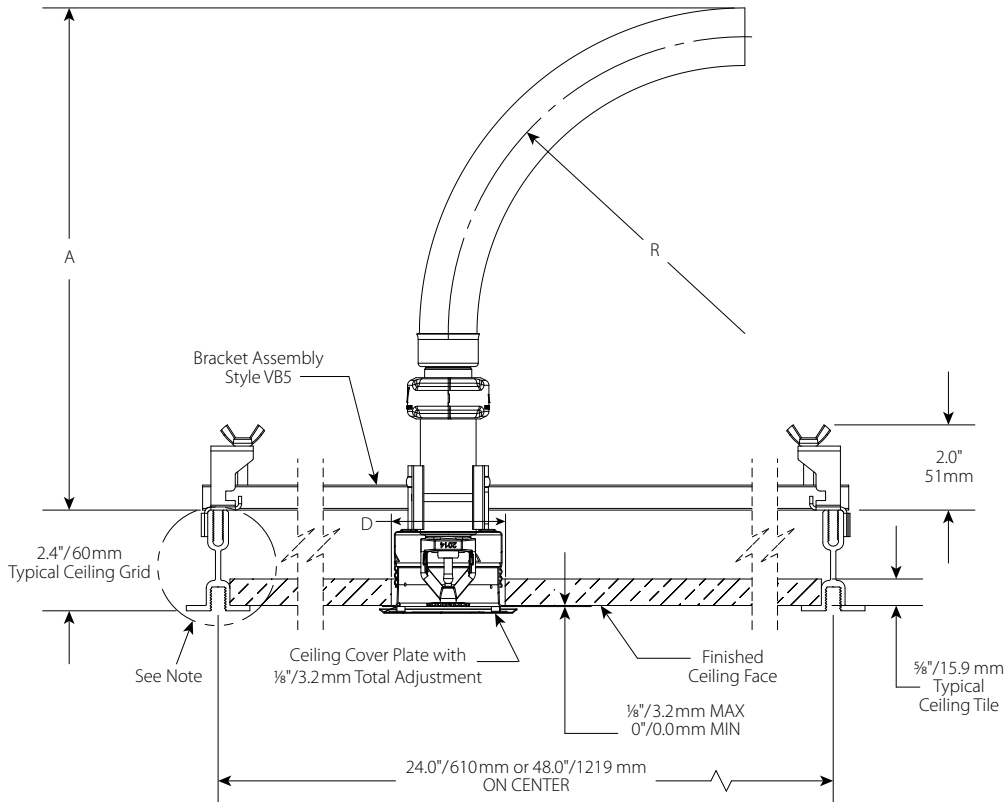
Hose Clearance			
Dimension		inches mm	
R	Bend Radius	2 51	7 178
A	Minimum Required Installation Space	5 127	10 254
D	Ceiling Hole Diameter	1 3/4 - 2 1/2 44 - 64	

**NOTE**

- Variations of ceiling grids, brackets, and sprinkler assemblies are permitted but may result in clearance differences from the figures above.

## 4.12 DIMENSIONS

### VB5 Data Center Grid Bracket



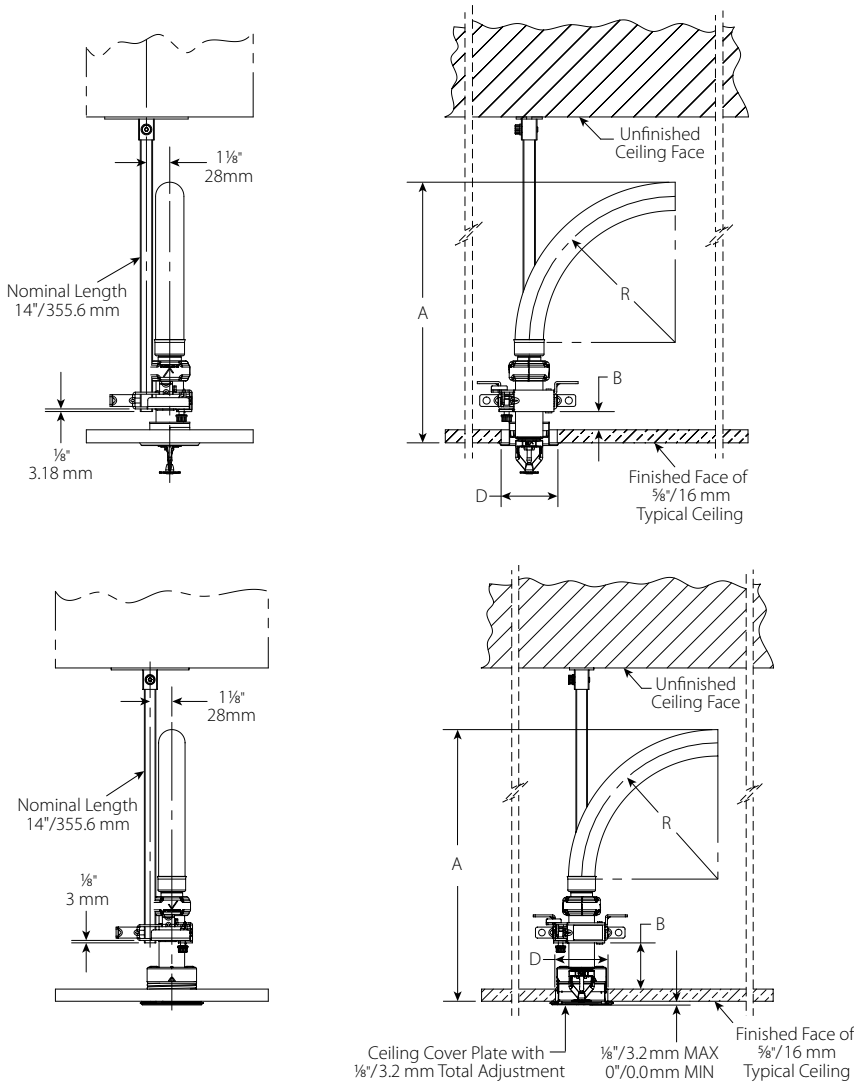
Hose Clearance		
Dimension		inches mm
R	Bend Radius	7 178
A	Minimum Required Installation Space	11.8 300
D	Ceiling Hole Diameter	2 5/8 - 2 3/4 67 - 70

**NOTE**

- Variations of ceiling grids, brackets, and sprinkler assemblies are permitted but may result in clearance differences from the figures above.

### 4.13 DIMENSIONS

#### Style VBBA Bracket

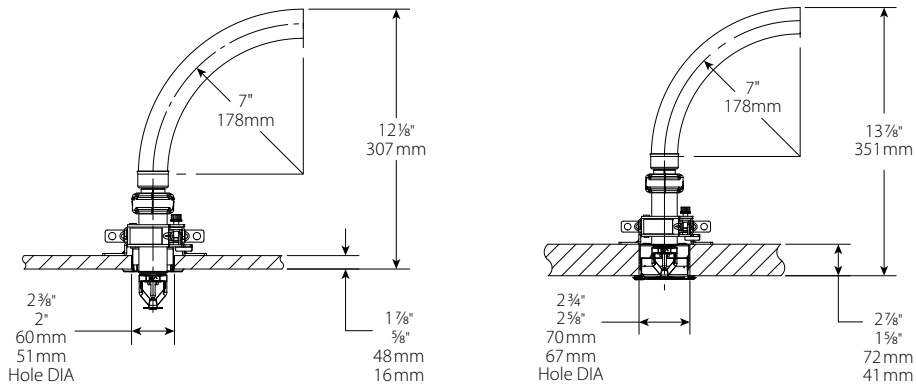


Hose Clearance		
Dimension	Recessed inches mm	Concealed inches mm
R	Bend Radius	
	12.5 317	14.0 354
A	Minimum Required Installation Space	
B	Distance from Top of Typical Ceiling Tile to Bottom of Gate	
D	Ceiling Hole Diameter	
	0.9 22.8	2 3/8 - 2 3/4 67 - 70

- Variations of ceiling grids, brackets, and sprinkler assemblies are permitted but may result in clearance differences from the figures above.

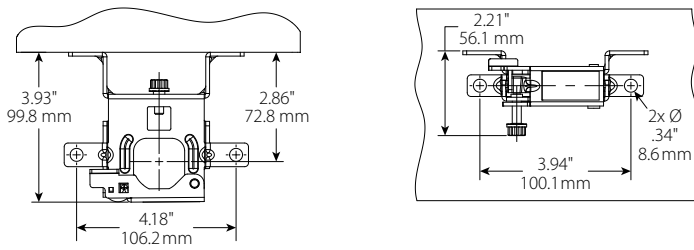
## 4.14 DIMENSIONS

### Style VBBA Bracket



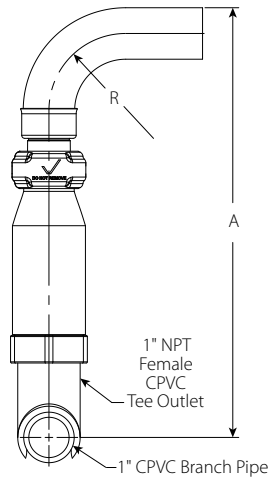
### Stand-off Dimensions

#### Style VBBA Bracket



## 4.15 DIMENSIONS

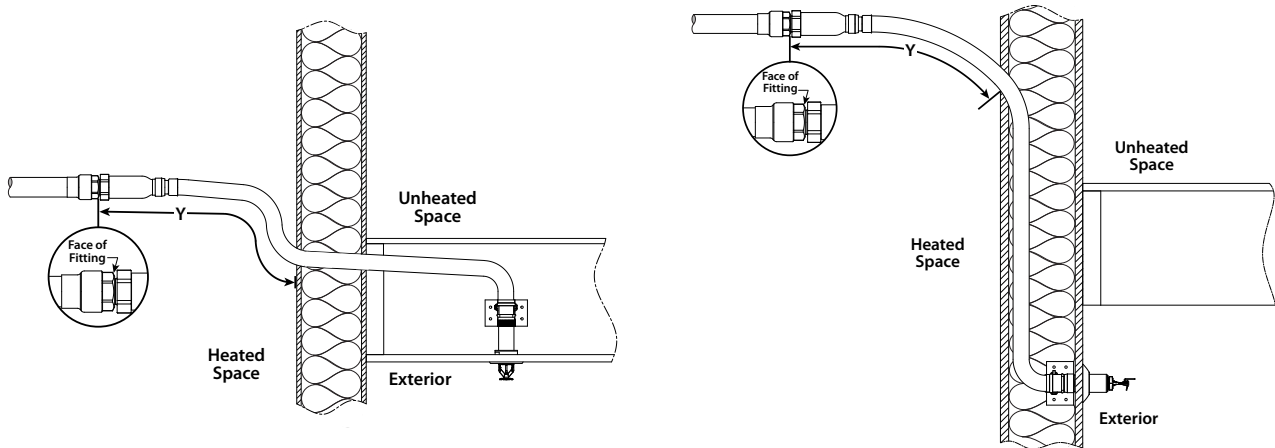
### Branchline Clearances



Hose Clearance			
Dimension		inches mm	
R	Bend Radius	2 51	7 178
A	Minimum Required Installation Space	11.2 284	16.2 411

## 5.0 PERFORMANCE

### Freeze Protection




Ambient Temperature Exposed to Discharge End of Sprinkler	Exposed Minimum Barrel Length "Y"		
	inches mm		
	40°F/4°C	50°F/10°C	60°F/16°C
40 4	0	0	0
30 -1	0	0	0
20 -7	4 100	0 0	0 0
10 -12	8 200	1 25	0 0
0 -18	12 300	3 75	0 0
-10 -23	14 350	4 100	1 25
-20 -29	14 350	6 150	3 75
-30 -34	16 400	8 200	4 100
-40 -40	18 450	8 200	4 100
-50 -46	20 500	10 250	6 150
-60 -51	20 500	10 250	6 150

**NOTE**

- Exposed minimum barrel lengths are inclusive up to 30-mph/48-kph wind velocities.

## 6.0 NOTIFICATIONS

<b>⚠ WARNING</b>	
	<ul style="list-style-type: none"><li>• Read and understand all instructions before attempting to install any Victaulic products.</li><li>• Always verify that the piping system has been completely depressurized and drained immediately prior to installation, removal, adjustment, or maintenance of any Victaulic products.</li><li>• Wear safety glasses, hardhat, and foot protection.</li></ul> <p>Failure to follow these instructions could result in death or serious personal injury and property damage.</p>
<ul style="list-style-type: none"><li>• 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 local and national fire protection 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.</li><li>• The installer shall understand the use of this product and why it was specified for the particular application.</li><li>• The installer shall understand common industry safety standards and potential consequences of improper product installation.</li><li>• 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.</li><li>• The material specifier shall evaluate the internal and external 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.</li><li>• It is the responsibility of the owner of a building or their authorized agent to provide the sprinkler system installer with any knowledge that the water supply might be contaminated with or conducive to the development of microbiologically influenced corrosion (MIC), including as required by NFPA 13. Failure to identify adverse water quality issues may affect the <i>VicFlex</i> product and void the manufacturer's warranty.</li></ul> <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>	

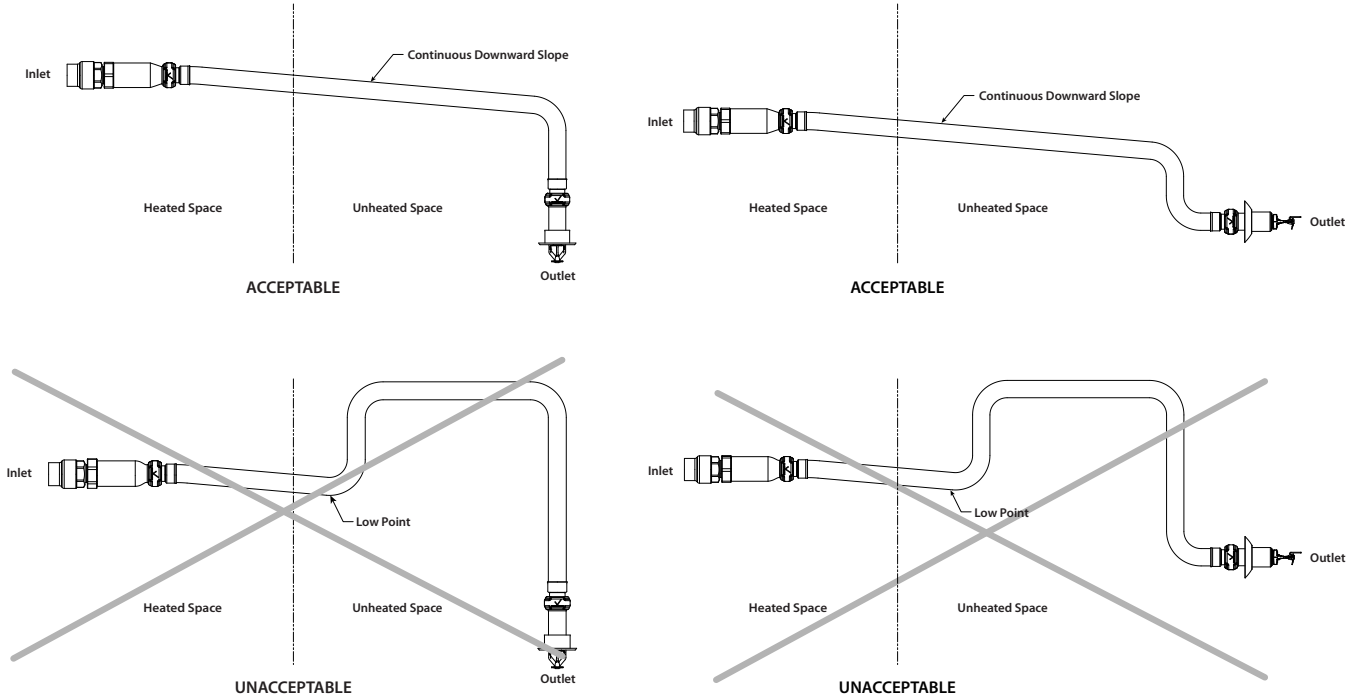
**DO NOT** paint, coat, or firestop the outlet/inlet portion of the Series FL/VS1 Dry Sprinkler. Braided hose and fitting portions of the Series FL/VS1 Dry Sprinkler may be painted/coated or caulked around, including fire barrier sealant, provided that the substance is compatible with stainless steel and zinc-plated carbon steel or ductile iron. Care shall be taken to ensure that the sprinkler and associated components do not come into contact with paint/coatings and caulking.

Series FL/VS1 Dry Sprinklers that penetrate through non-fire rated gypsum wall (drywall) will function as designed, provided the components are installed in accordance with the respective installation instructions referenced in this document.

## 6.0 NOTIFICATIONS (CONTINUED)

### Important Installation Notes

1. Shall be installed only in accordance with NFPA 13 Standard for the Installation of Sprinkler Systems and applicable FM Data Sheets.
2. Install and tighten swivel hex nut at inlet of sprinkler fitting only.
3. Do not remove deflector or inlet end of sprinkler.



## 6.0 NOTIFICATIONS (CONTINUED)

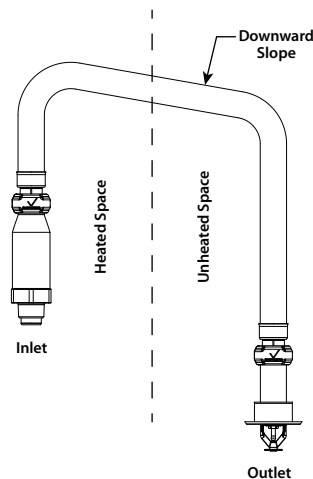
### FOR DRY SYSTEMS ONLY:

- The Series FL/VS1 Dry Sprinkler's inlet shall be installed only into the outlet of a fitting (excluding elbows) or welded outlet that meets the dimensional requirements of ANSI B16.3 and ANSI B16.4, Class 125 and Class 150. Use a sample fitting to confirm proper engagement and to verify that there is no interference between the sprinkler and the fitting

Series FL/VS1 Dry Sprinklers in an unheated space shall be installed with a continuous downward slope along its entire length from the branch line fitting to the sprinkler. No localized low points shall be present along the length of the Series FL/VS1 Dry Sprinkler.

Series FL/VS1 Dry Sprinklers in an unheated space are not permitted to be installed into the top of the branch line piping. Series FL/VS1 Dry Sprinklers shall be installed into the side or from the bottom of the branch line piping.

In a heated space, if a portion of the Series FL/VS1 Dry Sprinkler is installed from the top of a branch line and then extends into an unheated space, it shall be installed with a continuous downward slope along the entire length from the inside wall to the outlet of the sprinkler. No localized low points shall be present along the length of the sprinkler in the unheated space. Refer to the drawing below.



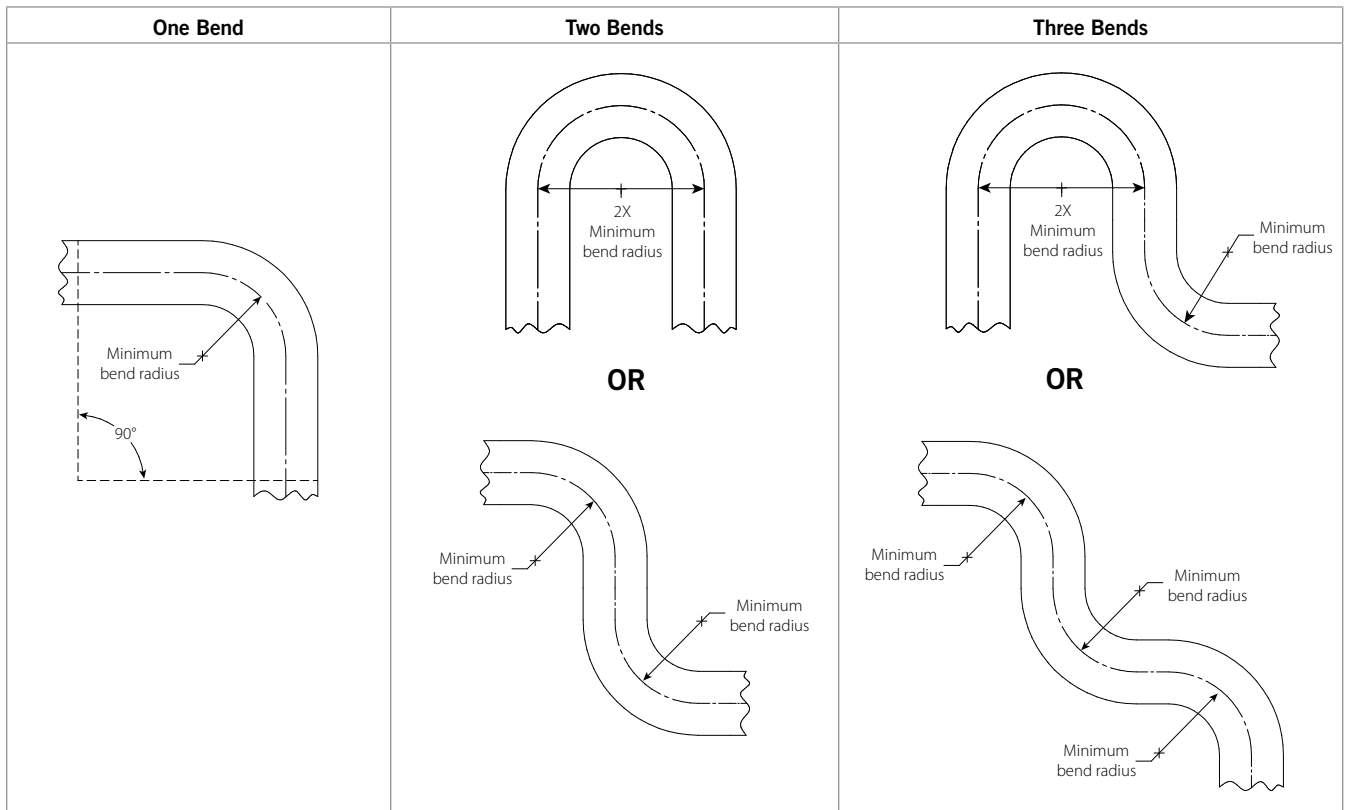
### FOR WET SYSTEMS ONLY:

- DO NOT** install Series FL/VS1 Dry Sprinklers into any threaded elbow, threaded-by-thread coupling, or fitting that interferes with thread penetration. The inlet of the Series FL/VS1 Dry Sprinkler **SHALL NOT** bottom out in the fitting. Use a sample fitting to confirm proper engagement.
- To ensure unobstructed flow during operation, the Series FL/VS1 Dry Sprinkler shall be installed into a fitting that will prevent water and debris from accumulating at the dry sprinkler's inlet.

In a heated space, if a portion of the Series FL/VS1 Dry Sprinkler extends into an unheated space, it shall be installed with a continuous downward slope along the entire length from the inside wall to the outlet end of the dry sprinkler. No localized low points shall be present along the length of the sprinkler in the unheated space. Refer to the drawing above.

- Verify that the exposed minimum barrel length in the heated space is measured and maintained in accordance with the [table on page 1](#).

## 7.0 REFERENCE MATERIALS



**NOTE**  
For out-of-plane (three-dimensional) bends, care must be taken to avoid imparting torsional stress on the sprinkler.

### VicFlex™ Maximum Load Values

#### Series FL-DRY/VS1 with 24" Bracket

Sprinkler Length inches / mm	Total Load		Max. Uniform Load	
	lb	N	lb/linear ft	N/linear m
38 / 965	5.5	24.5	2.8	40.2
50 / 1270	5.9	26.2	3.0	43.0
58 / 1473	6.2	27.6	3.1	45.3

#### Series FL-DRY/VS1 with 48" Bracket

Sprinkler Length inches / mm	Total Load		Max. Uniform Load	
	lb	N	lb/linear ft	N/linear m
38 / 965	6.8	30.2	1.7	24.8
50 / 1270	7.2	32.0	1.8	26.2
58 / 1473	7.5	33.4	1.9	27.4

Total Load is defined as the sum of the weights of the following:

- Series FL-DRY/VS1 Sprinkler
- Bracket Assembly (any applicable Victaulic bracket model of the relevant associated size)

#### ASTM C635: Suspension System Load-Carrying Capabilities (excerpted)

Suspension System	Duty Classification	Min. Allowable Uniform Load	
		lb/linear ft	N/linear m
Direct Hung	Light	5.0	73.0
	Intermediate	12.0	175.0
	Heavy	16.0	233.0

SUMMARY: All direct-hung suspension system duty classifications per ASTM C635 are able to withstand the maximum water-filled weight of the *VicFlex* Series FL-DRY/VS1 and bracket.

7.0 REFERENCE MATERIALS (CONTINUED)

**victaulic** VICFLEX™ STYLE VS1 DRY SPRINKLER ORDER FORM

SHIP TO:

Name:	Date of Order:
Address:	Purchase Order:
City:	Ship Via:
State/Prov.:	Tag:
Zip/Postal Code:	Signature*:

\* I agree to purchase the dry sprinklers specified on this form, which are NON-RETURNABLE & NOT CANCELLABLE.

**PART CODE CONFIGURATOR:** Configure the part code with options from chart below. DO NOT circle pipe order lengths and increments. Input appropriate length and quantity for each in the chart below. Please attach additional forms if extra ordering space is needed. **Separate forms must be completed for each configuration ordered.**

A	3F					4				
Class	Style	Connection	Deflector	Temperature	Response	K-Factor	Sprinkler Finish	Escutcheon Finish	Flexible Sprinkler Length	Escutcheon Style
A = VicFlex™	3F = V35	3 = 1" NPT 8 = 25mm BSPT	B = Pendent C = Horizontal D = Sidewall P = Concealed	A = 135°F/57°C E = 155°F/68°C F = 175°F/79°C J = 200°F/93°C K = 286°F/141°C	Q = Quick S = Standard	4 = 5.6K	4 = White (RAL 9010) <sup>1</sup> N = VC-250 <sup>2,3</sup> B = Black <sup>1</sup>	X = Stainless Steel W = White (RAL 9010) Painted Stainless Steel O = Concealed, No Escutcheon <sup>2,4</sup> Y = Black Painted Stainless Steel	380 = 38" 500 = 50" 580 = 58"	12 = Recessed 13 = Sleeve & Skirt 15 = Concealed

- Not available with Deflector P = Concealed.
- Deflector P = Concealed is only available with Sprinkler Finish N = VC-250 Coating and Escutcheon Finish O = Concealed, No Escutcheon.
- VC-250 coating is only available with stainless steel escutcheons. UI, and FM approved corrosion resistant coating, and VGS and LPCB recognized and approved alternate coating. Appears chrome in color.
- Coverplates sold separately.

**Total Sprinklers with specs identical to part code configuration above**

Send completed order form to [pic.kvic@victaulic.com](mailto:pic.kvic@victaulic.com)

**BRACKET SELECTION:** Input quantity for each bracket size.

Style	Size	Victaulic Part No.	Boxes (5 Brackets per Box)
Style VB1: Wood and metal stud or joist	—	A000000SLV	
Style VB2: Recessed pendent, suspended lay-in tile ceilings	24"	A24TBAR000	
	48"	A48TBAR000	
Style VB3: Concealed pendent, suspended lay-in tile ceilings	24"	A240AQVB3	
	48"	A480AQVB3	
Style VB4: Sleeve and skirt pendent, suspended lay-in tile ceilings	24"	A240VB4VS1	
	48"	A480VB4VS1	
Style VB5: Data center ceilings, wood and metal stud or joist	24"	A240VB5001	
	48"	A480VB5001	
Style VBBA: For suspended, exposed and hard-lid ceilings, allows for above mount and cantilever mount	—	A000VBA001	

SF-DRYSPRINKLERS 17227 REV J 01/2025  
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## 7.0 REFERENCE MATERIALS (CONTINUED)

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

[29.01: Victaulic Terms and Conditions of Sale](#)

[I-VICFLEX: Field Installation Handbook](#)

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### 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](http://victaulic.com).

### Warranty

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

### Intellectual Property Rights

No statement concerning the 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 affiliates, 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. 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.

### 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.