

# Reliable®

## Sprinkler Guards, Guards with Shields, and Water Shields

### Product Description

Sprinkler guards and water shields in this bulletin are independent components which are Listed or Approved with specific fire sprinklers. Sprinkler guards are designed to protect the sprinkler from damage due to incidental contact. Water shields are intended for use in racks or under grated walkways and prevent water from above from cooling and thereby delaying activation of the shielded sprinkler.

Refer to the guard selection table in this bulletin and sprinkler technical bulletins for listing and approval information regarding sprinkler and guard combinations.

**Note:** Guards, shields, and guard/shield combinations are NOT compatible with recessed sprinkler installations.

### Model C Guards and Guard/Shield Assemblies

#### Model C-1 Guard

This guard is used with pendent, upright, horizontal sidewall, and vertical sidewall sprinklers and does not incorporate a water shield.

#### Model C-2 Guard

This guard is used with non-recessed dry pendent sprinklers.

#### Model C-3 Guards

This guard has a built-in water shield. When assembled to an upright sprinkler, the combination forms an upright intermediate sprinkler with guard.

#### Model C-5 Guard/Shield Assembly

This assembly is a Model C-1 guard supplied with either an S-1 water shield threaded onto 1/2" sprinkler threads, or an S-2 water shield threaded onto 3/4" threads. The combination forms a pendent intermediate level sprinkler with guard.

### Model D Guards and Guard/Shield Assemblies

#### Model D-1 Guard

These guards are used with pendent, upright, and horizontal sidewall sprinklers and do not incorporate a water shield.

#### Model D-3, D-6, and D-7 Guards

These guards have a built-in water shield. When assembled to an upright sprinkler, the combination forms an upright intermediate sprinkler with guard.

#### Model D-5 Guard/Shield Assembly

This assembly comprises a model D-1 guard supplied with either an S-1 water shield threaded onto 1/2" sprinkler threads, or an S-2 water shield threaded onto 3/4" threads. The combination forms a pendent intermediate level sprinkler with guard.

#### Model D-8 Guard

This guard is used with pendent and upright sprinklers and does not incorporate a water shield.



Example: Model D1 Sprinkler Guard

#### Model D-9 Guard/Shield Assembly

This assembly is a Model D-8 guard supplied with an S-2 water shield that is threaded onto 3/4" sprinkler threads. The combination forms a pendent intermediate level sprinkler with guard.

#### Model D-14 Guard

Model D-14 sprinkler guards are FM Approved for in-rack installation only. Each guard is supplied with a 1" locknut that must be threaded onto the sprinkler prior to sprinkler installation. Where permitted by Table A, the guards may also be used in combination with the S-5 water shield which replaces the locknut. The guard may be mounted to the sprinkler either prior to or following installation of the sprinkler into an outlet.

### Model S Water Shields

Model S Shields are threaded water shields designed to create a pendent intermediate level sprinkler when installed on an approved sprinkler. The water shields are UL listed and/or FM Approved with the sprinklers listed in Table A, Listed and Approved Sprinkler, Guard, and Water Shield Combinations.

#### Model S-1

Model S-1 (3-1/4" [83mm] diameter) water shields are threaded onto 1/2" sprinkler inlet threads prior to installation

#### Model S-2 and S-3

Model S-2 (3-1/4" [83mm] diameter) and S-3 (3-3/4" [95mm] diameter) water shields are threaded onto 3/4" sprinkler inlet threads prior to installation.

**Note:** Model S-3 water shields are intended and listed for use on Model JL14 and JL17 ESFR storage sprinklers.

#### Model S-5

Model S-5 (4-1/2" [114mm] diameter) water shields are threaded onto 1" sprinkler inlet threads prior to installation.

**Model 22 and 25 Sprinkler Guards**

Model 22 and 25 sprinkler guards are FM Approved for in-rack installation only. Each guard is supplied with a 1" locknut that must be threaded onto the sprinkler prior to sprinkler installation. Where permitted by Table A, the guards may also be used in combination with the S-5 water shield which replaces the locknut. The guard is assembled to the sprinkler following installation of the sprinkler.

**Model F Guards and Guards with Shields**

Model F guards and guards with shields are specifically designed for use with KFR sprinklers and various F1 and F1FR sprinklers being transitioned to KFR frames. These sprinklers are designated as "NEW" in Table A, "Listed and Approved Sprinkler, Guard, and Water Shield Combinations."

**Model F-1, F-2, F-4, and F-7**

These guards are used with pendent, upright, horizontal sidewall, and vertical sidewall sprinklers and do not incorporate a water shield.

**Model F-3 Guard**

This guard has a built-in water shield. When assembled to an upright sprinkler, the combination forms an upright intermediate sprinkler with guard.

**Model F-5 Guard/Shield Assembly**

This assembly is a Model F-1 guard supplied with an S-1 water shield that is threaded onto 1/2" sprinkler threads. The combination forms a pendent intermediate level sprinkler with guard.

**Model F-6 Guard/Shield Assembly**

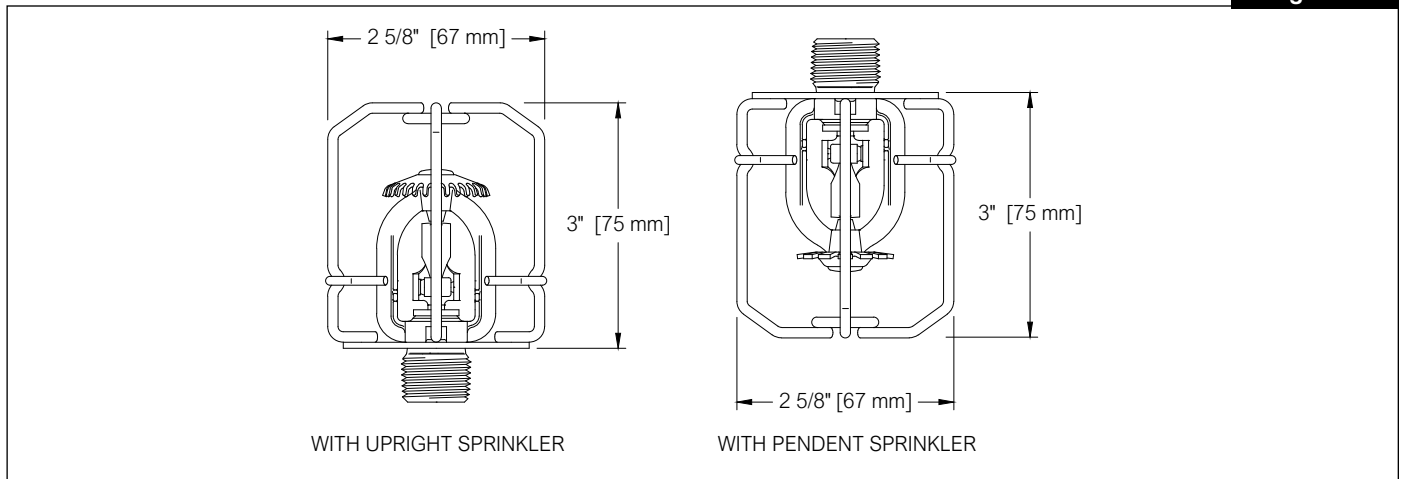
This assembly is a Model F-2 guard supplied with an S-2 water shield that is threaded onto 3/4" sprinkler threads. The combination forms a pendent intermediate level sprinkler with guard.

**Model F-8 Guard/Shield Assembly**

This assembly is a model F-7 guard supplied with either an S-1 water shield which is threaded onto 1/2" sprinkler threads, or an S-2 water shield threaded onto 3/4" threads. The combination forms a pendent intermediate level sprinkler with guard.

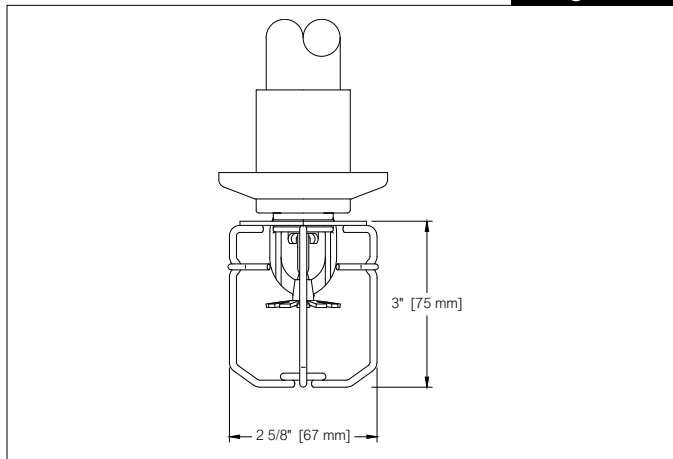
**Model C-1 Guards**

**Figure 1**



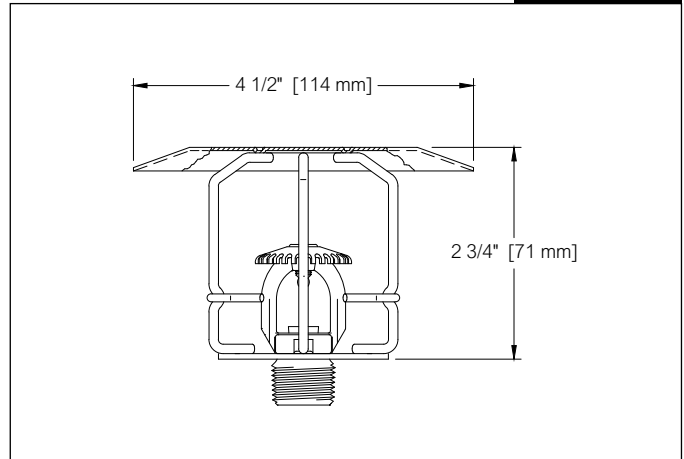
**Model C-2 Guards**

**Figure 2**



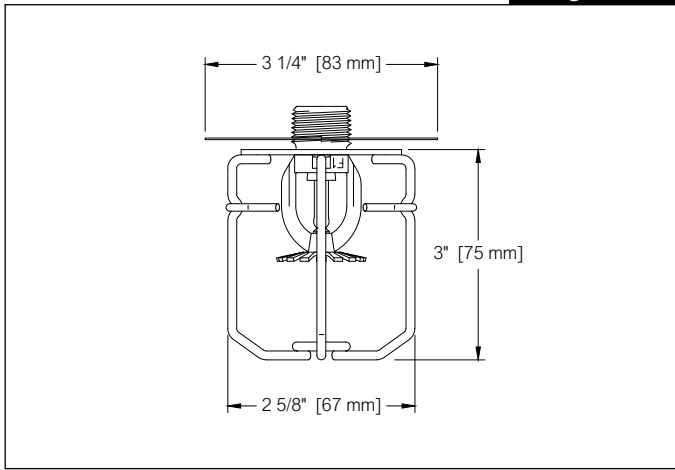
**Model C-3 Guards and Water Shield**

**Figure 3**



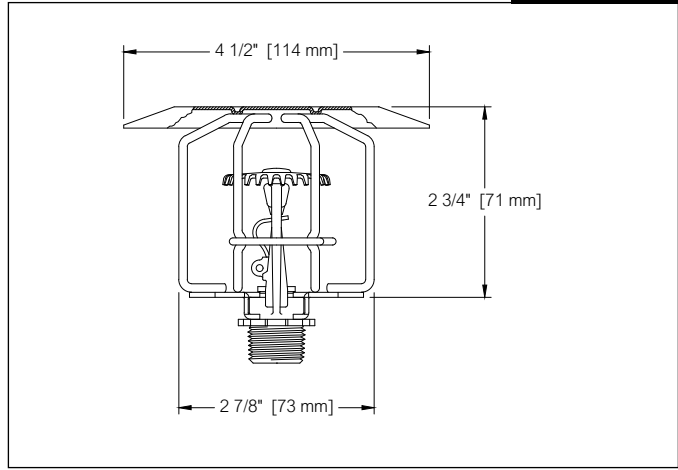
**Model C-5 Guards and Water Shield**

**Figure 4**



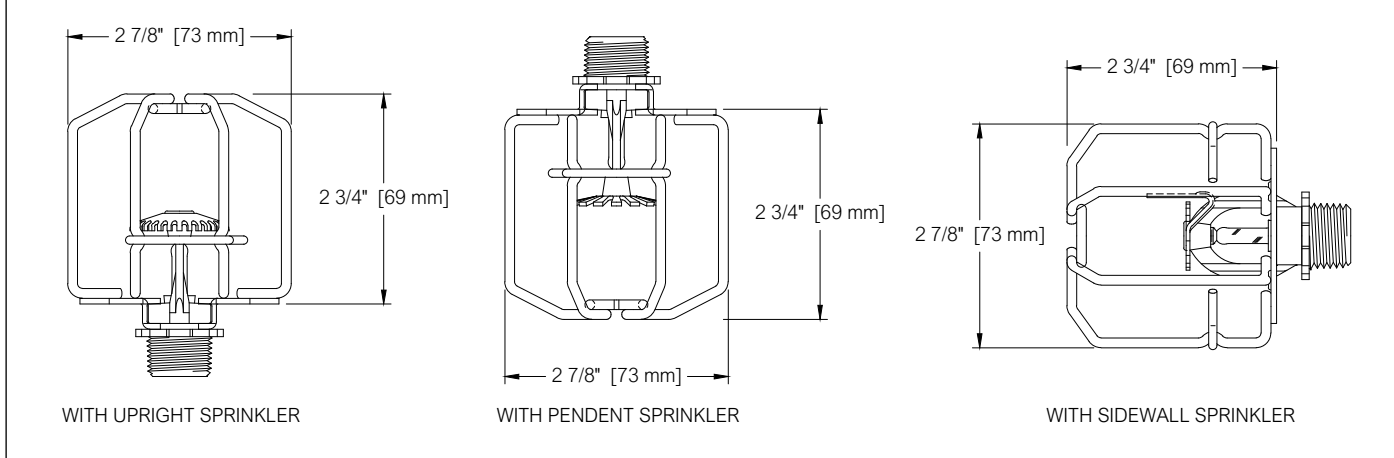
**Model D-3 Guards and Water Shield**

**Figure 5**



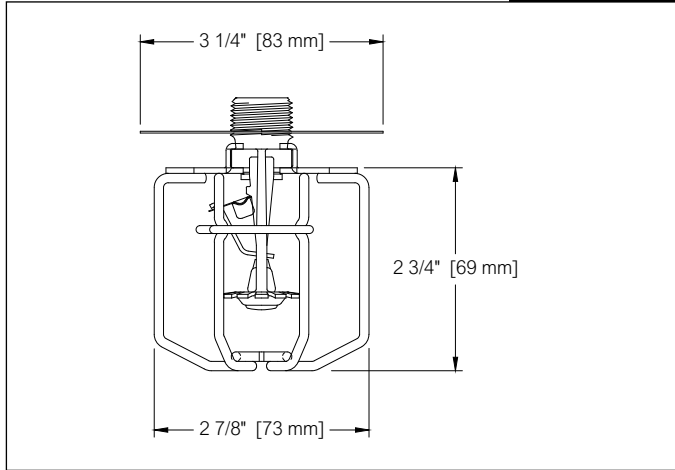
**Model D-1 Guard**

**Figure 6**



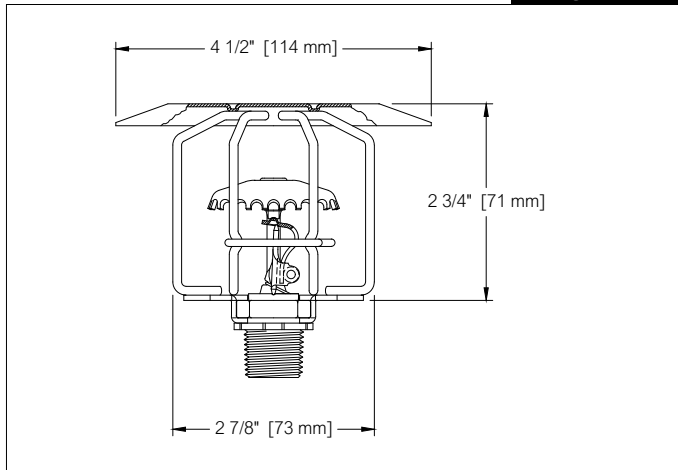
**Model D-5 Guards and Water Shield**

**Figure 7**



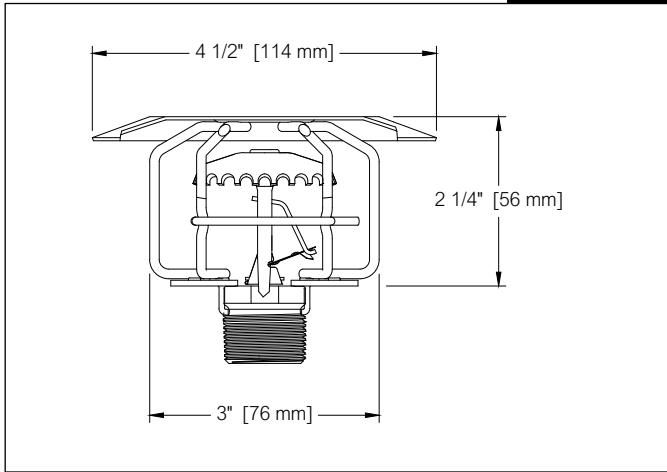
**Model D-6 Guards and Water Shield**

**Figure 8**



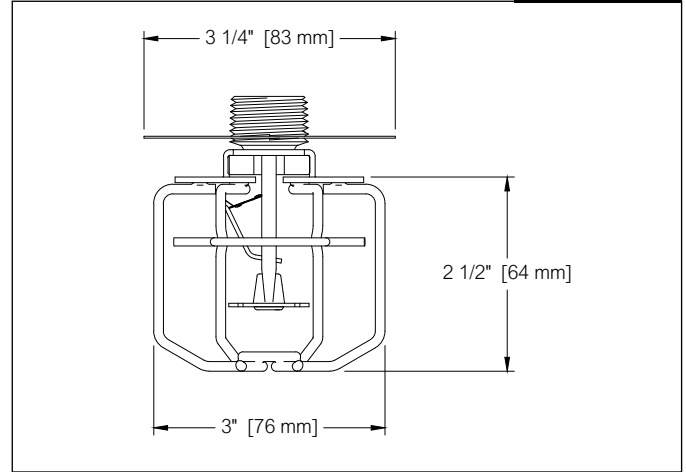
**Model D-7 Guards and Water Shield**

**Figure 9**



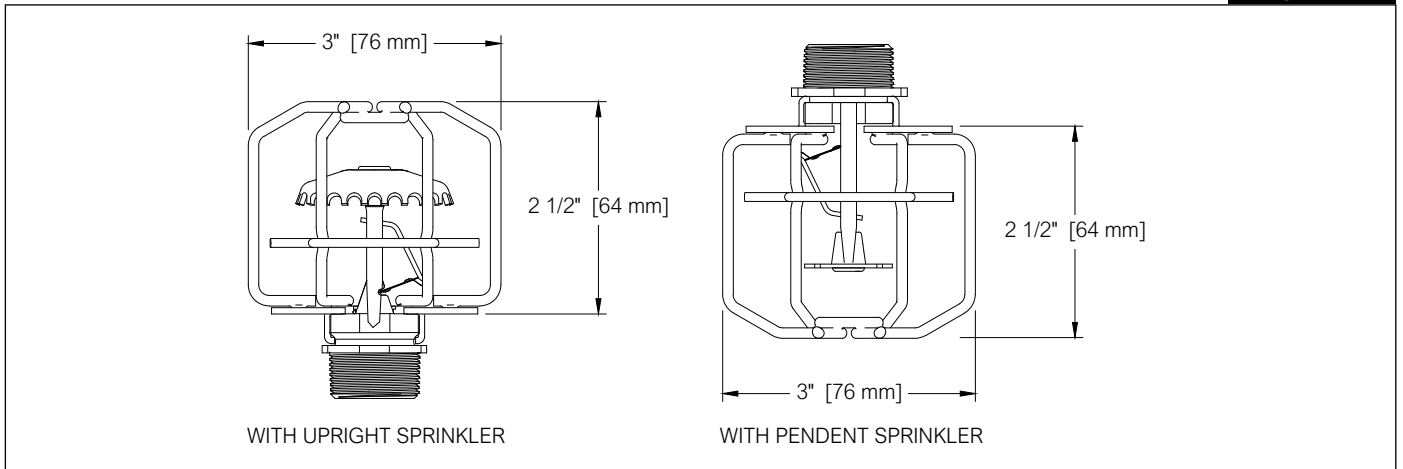
**Model D-9 Guard and Water Shield**

**Figure 10**



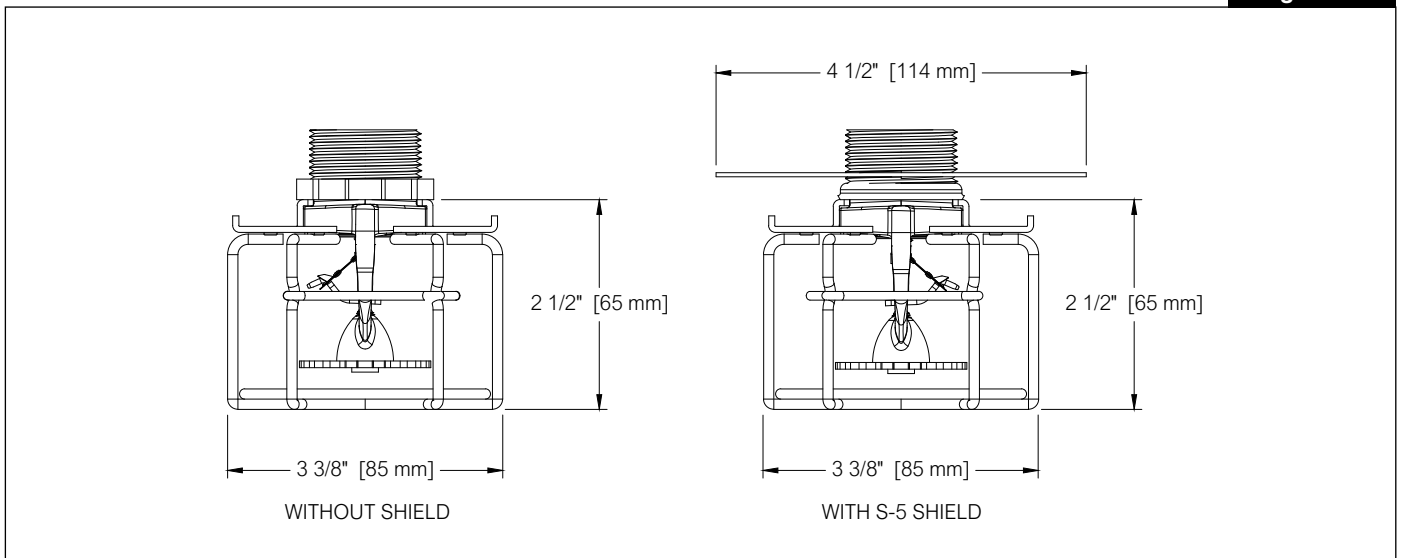
**Model D-8 Guard**

**Figure 11**



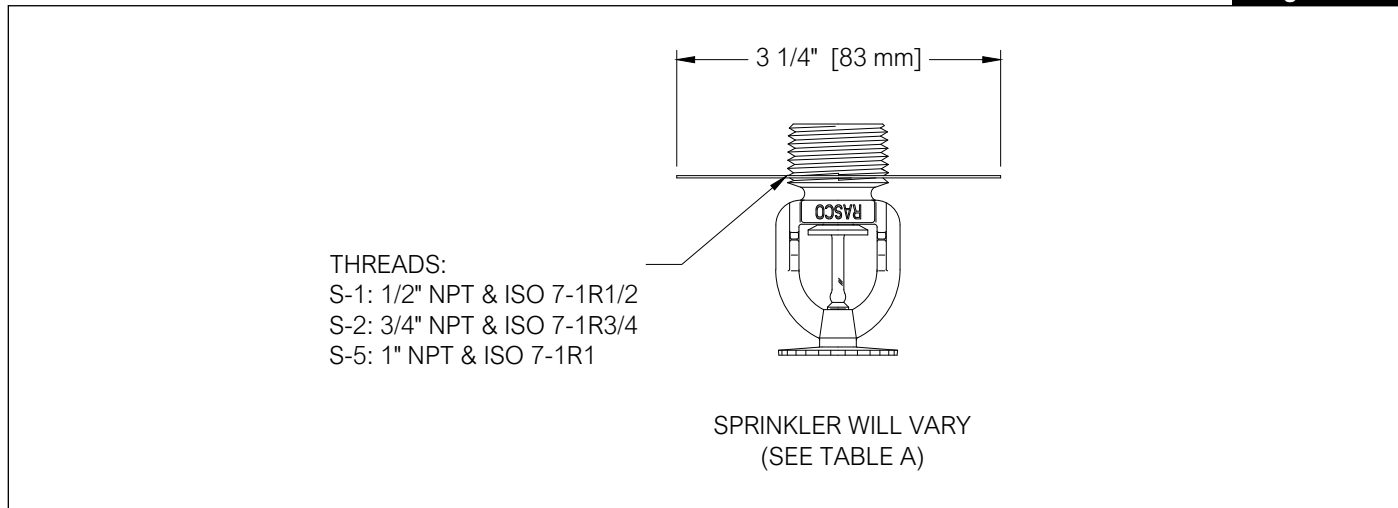
**Model D-14 Guard**

**Figure 12**



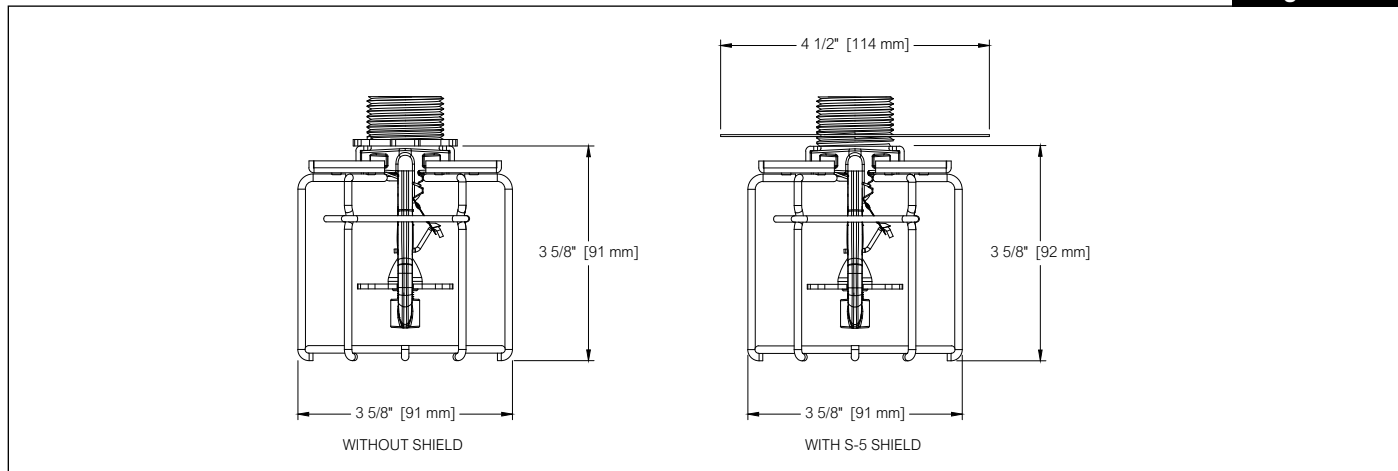
**Model S Water Shield**

**Figure 13**



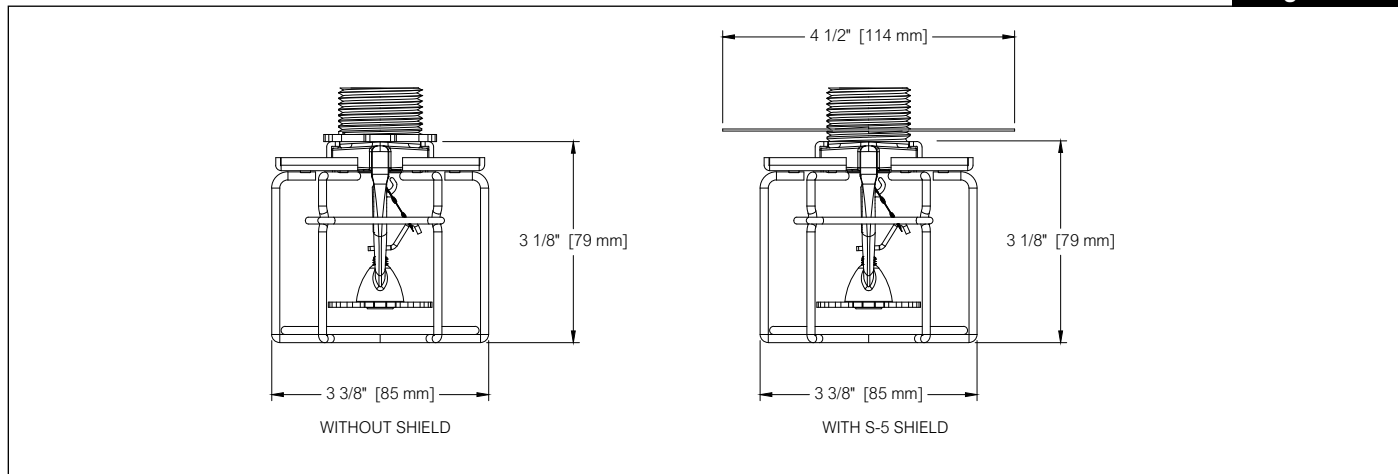
**Model 22 Guard**

**Figure 14**



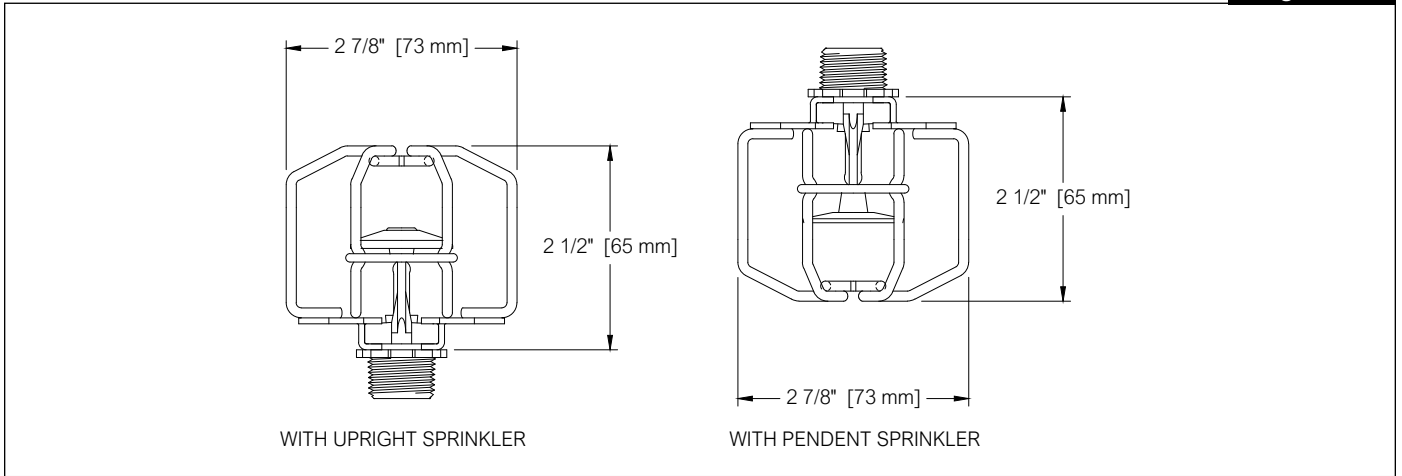
**Model 25 Guard**

**Figure 15**



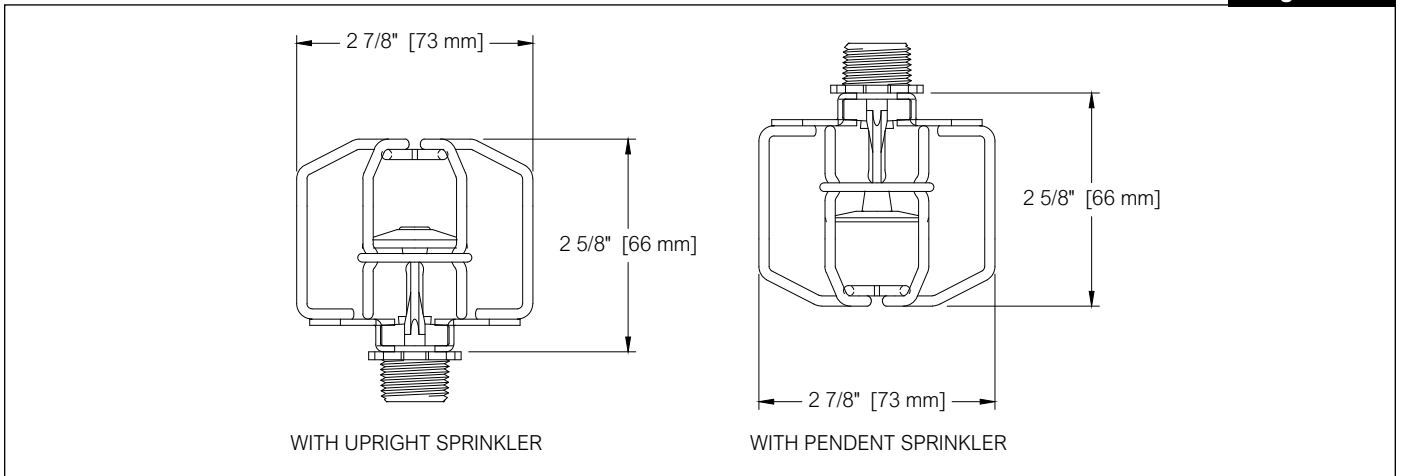
Model F-1 Guard

Figure 16



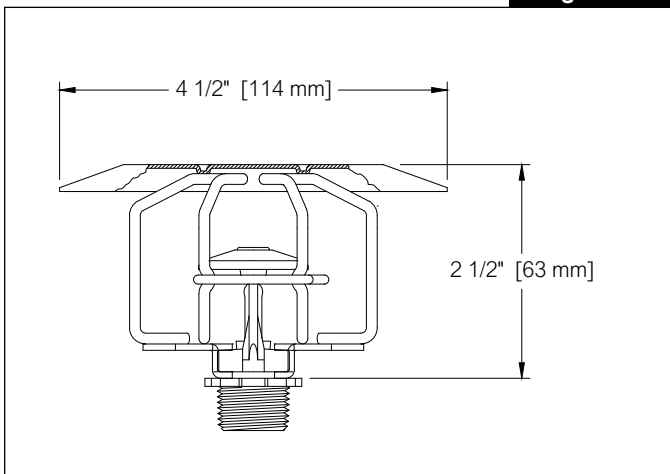
Model F-2 Guard

Figure 17



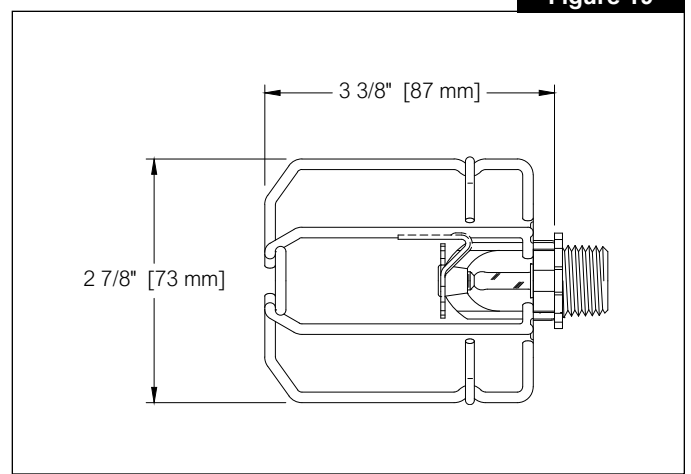
Model F-3 Guard and Water Shield

Figure 18



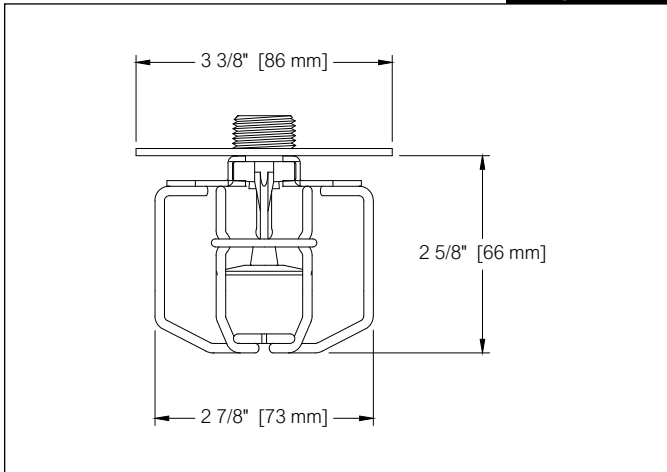
Model F-4 Guard

Figure 19



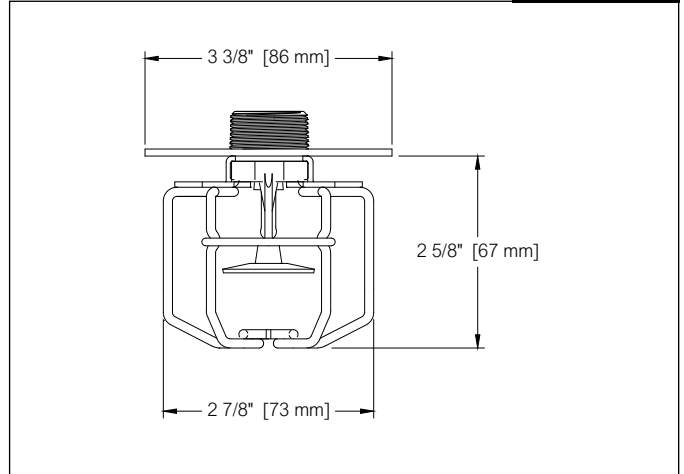
**Model F-5 Guard and Water Shield**

**Figure 20**



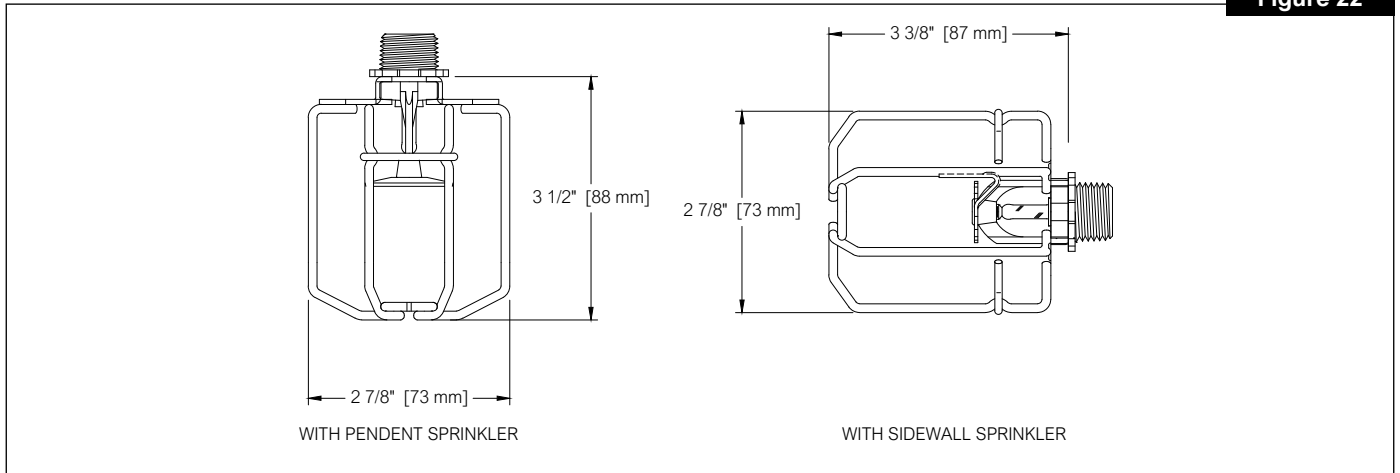
**Model F-6 Guard and Water Shield**

**Figure 21**



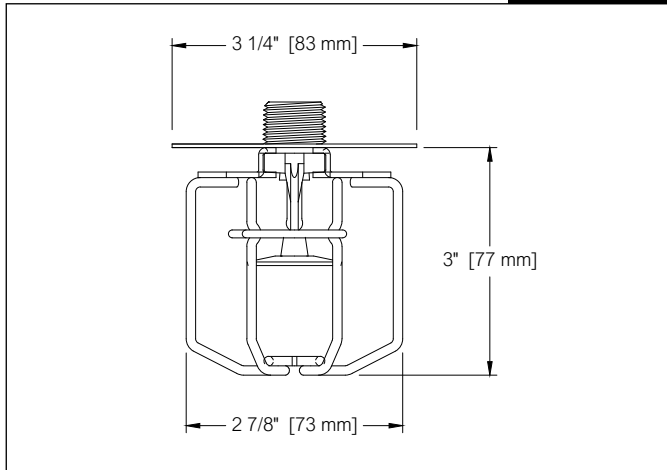
**Model F-7 Guard**

**Figure 22**



**Model F-8 Guard and Water Shield**

**Figure 23**



Listed and Approved Sprinkler, Guard, and Water Shield Combinations

Table A

Sprinkler Model <sup>(1)</sup>	Type <sup>(2)</sup>	Sprinkler Identification Number (SIN)	Nominal K-Factor gpm/psi <sup>1/2</sup> (L/min/bar <sup>1/2</sup> )	Sensitivity <sup>(3)</sup>	Threads NPT or ISO-7R	Approvals <sup>(4)</sup>	Guard, Guard and Shield, or Water Shield Model
F1-28 NEW <sup>(8)</sup>	Pendent	RA1311	2.8 (40)	SR	1/2	cULus	F-7 Guard F-8 Guard and Shield S-1 Shield
	Upright	RA1321	2.8 (40)	SR	1/2	cULus	F-1 Guard F-3 Guard and Shield
F1-42 NEW <sup>(8)</sup>	Pendent	RA1313	4.2 (60)	SR	1/2	cULus	F-7 Guard F-8 Guard and Shield S-1 Shield
	Upright	RA1323	4.2 (60)	SR	1/2	cULus	F-1 Guard F-3 Guard and Shield
F1-56 NEW <sup>(8)</sup>	HSW	RA1335	5.6 (80)	SR	1/2	cULus	F-7 Guard
						FM	F-4 Guard
	Pendent	RA1314	5.6 (80)	SR	1/2	cULus	F-7 Guard F-8 Guard and Shield S-1 Shield
						FM	F-1 Guard F-5 Guard and Shield S-1 Shield
	Upright	RA1325	5.6 (80)	SR	1/2	cULus	F-1 Guard F-3 Guard and Shield
						FM	F-1 Guard F-3 Guard and Shield
	VSW	RA1385	5.6 (80)	SR	1/2	cULus	NA
						FM	F-2 Guard
F1-56-300 NEW <sup>(8)</sup>	Pendent	RA2514	5.6 (80)	SR	1/2	cULus	F-7 Guard F-8 Guard and Shield S-1 Shield
	Upright	RA2525	5.6 (80)	SR	1/2	cULus	F-1 Guard F-3 Guard and Shield
F1-56SS	Pendent	RA6414	5.6 (80)	SR	1/2	cULus	D-1 Guard D-5 Guard and Shield S-1 Shield
						FM	C-1 Guard C-5 Guard and Shield D-1 Guard D-5 Guard and Shield S-1 Shield
	Upright	RA6424	5.6 (80)	SR	1/2	cULus	D-1 Guard C-3 Guard and Shield D-3 Guard and Shield
						FM	C-1 Guard C-3 Guard and Shield
F1-80 NEW <sup>(8)</sup>	Pendent	RA6212	8.0 (115)	SR	3/4	cULus	F-7 Guard F-8 Guard and Shield S-2 Shield
						FM	F-2 Guard F-6 Guard and Shield S-2 Shield
	Upright	RA6222	8.0 (115)	SR	3/4	cULus	F-1 Guard F-3 Guard and Shield
						FM	F-2 Guard F-3 Guard and Shield
F1-80SS	Pendent	RA6412	8.0 (115)	SR	3/4	cULus	D-1 Guard D-5 Guard and Shield S-2 Shield
						FM	C-1 Guard C-5 Guard and Shield S-2 Shield
	Upright	RA6422	8.0 (115)	SR	3/4	cULus	D-1 Guard C-3 Guard and Shield D-3 Guard and Shield
						FM	C-1 Guard C-3 Guard and Shield

Note: see table notes on page 11.



**Table A cont.**

<b>Sprinkler Model<sup>(1)</sup></b>	<b>Type<sup>(2)</sup></b>	<b>Sprinkler Identification Number (SIN)</b>	<b>Nominal K-Factor gpm/psi<sup>1/2</sup> (L/min/bar<sup>1/2</sup>)</b>	<b>Sensitivity<sup>(3)</sup></b>	<b>Threads NPT or ISO-7R</b>	<b>Approvals<sup>(4)</sup></b>	<b>Guard, Guard and Shield, or Water Shield Model</b>
F1FR28 NEW <sup>(8)</sup>	Pendent	RA1411	2.8 (40)	QR	1/2	cULus	F-7 Guard F-8 Guard and Shield S-1 Shield
	Upright	RA1421	2.8 (40)	QR	1/2	cULus	F-1 Guard F-3 Guard and Shield
F1FR42 NEW <sup>(8)</sup>	Pendent	RA1413	4.2 (60)	QR	1/2	cULus	F-7 Guard F-8 Guard and Shield S-1 Shield
	Upright	RA1423	4.2 (60)	QR	1/2	cULus	F-1 Guard F-3 Guard and Shield
F1FR56 NEW <sup>(8)</sup>	HSW	RA1435	5.6 (80)	QR	1/2	cULus	F-7 Guard
						FM	F-4 Guard
	Pendent	RA1414	5.6 (80)	QR	1/2	cULus	F-7 Guard F-8 Guard and Shield S-1 Shield
						FM	F-1 Guard F-5 Guard and Shield S-1 Shield
	Upright	RA1425	5.6 (80)	QR	1/2	cULus	F-1 Guard F-3 Guard and Shield
						FM	F-1 Guard F-3 Guard and Shield
	VSW	RA1485	5.6 (80)	QR	1/2	cULus	NA
						FM	F-2 Guard
F1FR56-300 NEW <sup>(8)</sup>	HSW	RA2634	5.6 (80)	QR	1/2	cULus	F-7 Guard
	Pendent	RA2614	5.6 (80)	QR	1/2	cULus	F-7 Guard F-8 Guard and Shield S-1 Shield
	Upright	RA2625	5.6 (80)	QR	1/2	cULus	F-1 Guard F-3 Guard and Shield
F1FR56SS	Pendent	RA6514	5.6 (80)	QR	1/2	cULus	D-1 Guard D-5 Guard and Shield S-1 Shield
						FM	C-1 Guard C-5 Guard and Shield D-1 Guard D-5 Guard and Shield S-1 Shield
	Upright	RA6524	5.6 (80)	QR	1/2	cULus	D-1 Guard C-3 Guard and Shield D-3 Guard and Shield
						FM	C-1 Guard C-3 Guard and Shield
F1FR80 NEW <sup>(8)</sup>	Pendent	RA6312	8.0 (115)	QR	3/4	cULus	F-7 Guard F-8 Guard and Shield S-2 Shield
						FM	F-2 Guard F-6 Guard and Shield S-2 Shield
	Upright	RA6322	8.0 (115)	QR	3/4	cULus	F-1 Guard F-3 Guard and Shield
						FM	F-2 Guard F-3 Guard and Shield
F1FR80SS	Pendent	RA6512	8.0 (115)	QR	3/4	cULus	D-1 Guard D-5 Guard and Shield S-2 Shield
						FM	C-1 Guard C-5 Guard and Shield S-2 Shield
	Upright	RA6522	8.0 (115)	QR	3/4	cULus	D-1 Guard C-3 Guard and Shield D-3 Guard and Shield
						FM	C-1 Guard C-3 Guard and Shield

**Note:** see table notes on page 11.

**Table A cont.**

<b>Sprinkler Model<sup>(1)</sup></b>	<b>Type<sup>(2)</sup></b>	<b>Sprinkler Identification Number (SIN)</b>	<b>Nominal K-Factor gpm/psi<sup>1/2</sup> (L/min/bar<sup>1/2</sup>)</b>	<b>Sensitivity<sup>(3)</sup></b>	<b>Threads NPT or ISO-7R</b>	<b>Approvals<sup>(4)</sup></b>	<b>Guard, Guard and Shield, or Water Shield Model</b>	
F3-56 Dry	Pendent	R5314	5.6 (80)	SR	1	cULus, FM	C-2 Guard <sup>(5)</sup>	
	HSW	R5334	5.6 (80)	SR	1	FM	C-2 Guard <sup>(5)</sup>	
F3QR56 Dry	Pendent	R5714	5.6 (80)	QR	1	cULus, FM	C-2 Guard <sup>(5)</sup>	
	HSW	R5734	5.6 (80)	QR	1	FM	C-2 Guard <sup>(5)</sup>	
G	HSW	R1231	2.8 (40)	SR	1/2	cULus	D-1 Guard	
		R1233	4.2 (60)	SR	1/2	cULus	D-1 Guard	
		R1235	5.6 (80)	SR	1/2	cULus FM	D-1 Guard C-1 Guard	
		R1236	8.0 (115)	SR	1/2	cULus	D-1 Guard	
		R1237	8.0 (115)	SR	3/4	cULus	D-1 Guard	
		R1011	2.8 (40)	SR	1/2	cULus FM	D-1 Guard C-1 Guard	
	Pendent	R1013	4.2 (60)	SR	1/2	cULus	D-1 Guard	
		R1015	5.6 (80)	SR	1/2	cULus FM	D-1 Guard D-5 Guard and Shield S-1 Shield C-1 Guard C-5 Guard and Shield S-1 Shield	
		R1017	8.0 (115)	SR	3/4	cULus FM	D-1 Guard D-5 Guard and Shield S-2 Shield C-1 Guard C-5 Guard and Shield S-2 Shield	
		R1021	2.8 (40)	SR	1/2	cULus FM	D-1 Guard C-1 Guard	
		R1023	4.2 (60)	SR	1/2	cULus	D-1 Guard	
		R1025	5.6 (80)	SR	1/2	cULus FM	D-1 Guard C-3 Guard and Shield D-3 Guard and Shield C-1 Guard C-3 Guard and Shield	
	Upright	R1026	8.0 (115)	SR	1/2	cULus FM	D-1 Guard C-3 Guard and Shield D-3 Guard and Shield C-1 Guard C3 Guard and Shield	
		R1027	8.0 (115)	SR	3/4	cULus FM	D-1 Guard C-3 Guard and Shield D-3 Guard and Shield C-1 Guard C-3 Guard and Shield	
		VSW	R1285	5.6 (80)	SR	1/2	FM	C-1 Guard
		HSW	R3131	2.8 (40)	QR	1/2	cULus	D-1 Guard
			R3133	4.2 (60)	QR	1/2	cULus	D-1 Guard
			R3135	5.6 (80)	QR	1/2	cULus	D-1 Guard
	R3137		8.0 (115)	QR	3/4	cULus	D-1 Guard	
	Pendent	R3111	2.8 (40)	QR	1/2	cULus	D-1 Guard	
		R3113	4.2 (60)	QR	1/2	cULus	D-1 Guard	
		R3115	5.6 (80)	QR	1/2	cULus	D-1 Guard	
		R3117	8.0 (115)	QR	3/4	cULus FM	D-1 Guard C-5 Guard and Shield	
Upright	R3121	2.8 (40)	QR	1/2	cULus	D-1 Guard		
	R3123	4.2 (60)	QR	1/2	cULus	D-1 Guard		
	R3125	5.6 (80)	QR	1/2	cULus	C-3 Guard and Shield D-1 Guard D-3 Guard and Shield		
	R3127	8.0 (115)	QR	3/4	cULus FM	C-3 Guard and Shield D-1 Guard D-3 Guard and Shield C-3 Guard and Shield		

**Note:** see table notes on page 11.

Sprinkler Model <sup>(1)</sup>	Type <sup>(2)</sup>	Sprinkler Identification Number (SIN)	Nominal K-Factor gpm/psi <sup>1/2</sup> (L/min/bar <sup>1/2</sup> )	Sensitivity <sup>(3)</sup>	Threads NPT or ISO-7R	Approvals <sup>(4)</sup>	Guard, Guard and Shield, or Water Shield Model
GL112	Pendent	R3216	11.2 (160)	QR	3/4	FM	D-8 Guard D-9 Guard and Shield S-2 Shield
	Upright	R3226	11.2 (160)	QR	3/4	FM	D-7 Guard and Shield D-8 Guard
GXLO	Pendent	R2916	11.2 (160)	SR	3/4	FM	D-8 Guard D-9 Guard and Shield S-2 Shield
	Upright	R2921	11.2 (160)	SR	3/4	cULus FM	D-6 Guard and Shield D-7 Guard and Shield D-8 Guard
HL22 Threaded	Pendent	RA1011	22.4 (320)	ESFR	1	FM	22 Guard <sup>(6)</sup> S-5 Shield <sup>(6)(7)</sup>
JL14	Pendent	RA1812	14.0 (200)	ESFR	3/4	FM	S-3 Shield
JL17	Pendent	RA1914	16.8 (240)	ESFR	3/4	FM	S-3 Shield
KFR56	Pendent	RA3614	5.6 (80)	QR	1/2	cULus	F-7 Guard F-8 Guard and Shield S-1 Shield
						FM	F-1 Guard F-5 Guard and Shield S-1 Shield
	Upright	RA3624	5.6 (80)	QR	1/2	cULus	F-1 Guard F-3 Guard and Shield
						FM	F-1 Guard F-3 Guard and Shield
	HSW	RA3634	5.6 (80)	QR	1/2	cULus	F-7 Guard
						FM	F-4 Guard
KFR56-300	Pendent	RA3914	5.6 (80)	QR	1/2	cULus	F-7 Guard F-8 Guard/Water Shield S-1 Water Shield
		RA3924					F-1 Guard F-3 Guard/Water Shield
	RA3934	F-7 Guard					
KFR80	Pendent	RA5412	8.0 (115)	QR	3/4	cULus	F-7 Guard F-8 Guard and Shield S-2 Shield
						FM	F-2 Guard F-6 Guard and Shield S-2 Shield
	Upright	RA5422	8.0 (115)	QR	3/4	cULus	F-1 Guard F-3 Guard and Shield
						FM	F-2 Guard F-3 Guard and Shield
N25 Threaded	Pendent	RA0912	25.2 (360)	ESFR	1	FM	25 Guard <sup>(6)</sup> S-5 Shield <sup>(6)(7)</sup>
N252EC	Pendent	RA0842	25.2 (360)	QR	1	FM	25 Guard <sup>(6)</sup>
P22 Threaded	Pendent	R601	22.4 (320)	ESFR	1	FM	D-14 Guard <sup>(6)</sup> S-5 Shield <sup>(6)(7)</sup>
P25 Threaded	Pendent	R602	25.2(360)	ESFR	1	FM	D-14 Guard <sup>(6)</sup> S-5 Shield <sup>(6)(7)</sup>

**Notes:**

- Sprinkler guards and water shields are listed and approved only for use with specific sprinklers. The use of any other guards or water shields on these sprinklers may impede their operation or distribution and negate all approvals and warranties.
- HSW: Horizontal Sidewall; VSW: Vertical Sidewall
- QR: Quick-response; SR: Standard-response; ESFR: Early Supression Fast Response.
- In addition, SSL Approval for C-1, C-2, and C-3 guards and water shields.
- Model C-2 guards are listed and work only with standard and HB type escutcheons. Model C-2 guards cannot be used with FP or F1 recessed escutcheons.
- FM Approved for intermediate-level use only, such as in-rack, under conveyors, mezzanines, or other similar obstructions. Only for use with threaded sprinklers.
- When used in combination with a guard, the S-5 Shield replaces the 1” lock washer provided with the guard.
- Sprinklers designated as “NEW” are updated versions of legacy sprinklers and MUST use F-series guards and guards with shields.

## Listings & Approvals

Refer to Table A. Listed and Approved Sprinkler, Guard, and Water Shield Combinations for information on Listings and Approvals applicable to each guard and water shield.

1. Listed by Underwriters Laboratories, Inc. and UL certified for Canada (cULus)
2. Certified by FM Approvals
3. Scientific Services Laboratories (SSL, Australia)\*  
\* For Models C1, C2, C3 guards.

## Installation

### Model C-1, C-2, and C-3 Guards

Install the sprinkler in accordance with the applicable sprinkler installation instructions prior to installing the Model C guard. With both clips unhooked, slightly spread open the guard. Insert steel plate into the installed sprinkler between the threads and the wrench flats. The steel plate tabs should face the sprinkler wrench flats and four contact points engage the sprinkler neck.

For Model C-2, the steel plate fits into the groove in each wrench flat and the guard is located by the notch in both steel plates. Snap the upper locking clip into place, then close the rear clip. The guard is now securely installed in place. If locking clip requires too much force to snap closed or open, slightly flex the wires on both sides of the clip and either close or open the clip.

### Model C-5 Guard/Shield Assembly

Prior to installing sprinkler into fitting, thread the Model S-1 (1/2") or S-2 (3/4") water shield onto the sprinkler. After installing sprinkler into fitting, install the Model C-1 Guard per the instructions above.

### Model D Guards

Model D series guards and water shields are designed to be installed on the sprinkler prior to sprinkler installation. Assemble the guard on the sprinkler using the following technique:

With both cups unhooked, slightly spread open the guard. Insert steel plate into the installed sprinkler between the threads and the wrench flats. The steel plate tabs should face the sprinkler wrench flats and four contact points should engage the sprinkler neck.

Snap the upper locking clip (steel plates) into place. Close the lower clip at the top of the guard and slide it down to the notch. After installing the guard, thread EITHER a lock nut (for guard only) OR a water shield (for guard/shield assembly) onto the sprinkler threads. The final assembly can then be installed into a fitting using the wrench indicated in Table B "Wrench for Installation of Guard, Water Shield, and Sprinkler Assembly." Tighten the lock nut or water shield securely against the guard.

### Model F Guards

Model F series guards and guards with shields are designed to be installed on the sprinkler prior to installation. The assembly is then installed with the wrench indicated in Table B, Wrench for Installation of Guard, Water Shield, and Sprinkler Assembly.

### Models F-1, F-2, F-3, F-4 & F-7

Assemble the guard on the sprinklers using the technique described for the Model D-1, then install a 1/2" or 3/4" locking nut on the NPT threads until the nut is tight against the guard.

### Models F-5, F-6, & F-8

Assemble the guard on the sprinklers using the technique described for the Model D-1, then install a 1/2" or 3/4" threaded water shield on the NPT threads until the shield is tight against the guard.

### Model 22 & 25 Guards

Install the provided locknut on the sprinkler threads prior to installation of the sprinkler. Install the sprinkler in accordance with the applicable sprinkler installation instructions. With both clips unhooked, slightly spread open the guard. Insert the guard over the installed sprinkler so that the base plate of the guard attaches to the wrench flats of the sprinkler. Connect both locking clips to the adjacent tines of the guard. Tighten the locknut against the base plate of the guard.

### Model S Water Shields

Model S water shields are designed to be installed on the sprinkler prior to installation. Thread the Model S water shield onto the sprinkler by hand, making sure that the shield does not pass by the end of the threads near the wrench boss. Install the sprinkler/shield assembly with the wrench indicated in the appropriate Technical Bulletin for the sprinkler.

### Installation Notes

1. For all products incorporating a lock-nut feature, the lock-nut is part of the listed assembly. Failure to install the lock-nut will void the listing of the product and may lower the impact tolerance of the device.
2. The products in this bulletin are NOT compatible with recessed or concealed sprinkler installations.

**Wrench for Installation of Guard, Water Shield, and Sprinkler Assembly**

**Table B**

Guard/ Water Shield	Required Wrench for Installation of Guard, Water Shield, and Sprinkler Assembly
D-1	Model W13 K5.6 and smaller sprinklers
D-3	
D-5	
D-1	Model W14 K8.0 sprinklers
D-3	
D-5	
D-6	Model W15
D-7	
D-8	
D-9	
D-14	Model W16
F (All)	Model W14
K22	Model W16
K25	

**Finishes**

**Guard Finishes**

**Table C**

Standard	Special Application
Zinc plated with clear chromate	Enamel red paint Custom color paint Bright Chrome Dull Chrome

**Notes:**

- Guards are formed from steel and are not considered corrosion resistant.
- The Model C1 guard is available FM Approved in Type 316.

**Water Shield Finishes**

**Table D**

S Series Water Shields	
Standard	Special Application
Galvanized	Enamel red paint Custom color paint

**Note:** Special application finishes are special order only and will require additional lead time.

**Ordering Information**

**Specify:**

- Guard, Guard with Shield, or Shield Model
- Sprinkler Thread Size (required for Model D-5 only)
- Finish (See tables C and D)
- Wrench (See table B)

**Note:** Factory installation of Models D and F guards is available at additional cost. Please contact your Reliable representative for details.