

Reliable®

Model GFR VELO-ECOH Extended Coverage Ordinary Hazard Upright Sprinkler

Model GFR VELO-ECOH Upright (SIN R6553)

Features

1. Provides Extended Coverage Ordinary Hazard protection to 400 ft² (37.2m²) per sprinkler.
2. Very Extra Large Orifice of Nominal K=14.0 (200) permitting low pressures.
3. 212°F (100°C) and 165°F (74°C) temperature rating.
4. Available in brass, chrome, black plated and polyester coated finishes.
5. Can be used for all editions of NFPA 13.

Listings & Approvals

1. Listed by Underwriters Laboratories, and UL certified for Canada (cULus)
2. NYC MEA 258-93-E

UL Listing Category

Sprinklers, Automatic and Open Extended Coverage Sprinklers— Ordinary Hazard Occupancy

UL Guide Number

VNIV

Product Description

The Reliable Model VELO-ECOH Extended Coverage Sprinkler has a very extra large orifice, Nominal K=14.0 (200). It can provide Ordinary Hazard protection to 400 ft² (37.2 m²) at lower pressures than an XLO which has a K=11.2 (160.2).

The Model GFR VELO-ECOH Sprinklers provide protection in Ordinary Hazard Group 1 and 2 Occupancies to 400 ft² (37.2m²) per sprinkler when the system is designed to NFPA 13 hydraulic density requirements.

Model GFR VELO-ECOH Upright Sprinklers are to be installed according to the design criteria shown in this bulletin. The use of ECOH sprinklers can provide opportunities for lower system installation costs by requiring fewer sprinklers, less piping and reduced labor.

Model GFR VELO-ECOH Sprinklers use a levered fusible alloy solder link.



Model GFR VELO-ECOH Upright

Design Criteria

Reliable Model GFR VELO-ECOH sprinklers are to be used in systems designed and installed in accordance with NFPA 13 and all other local codes and ordinances. The following design criteria also apply:

- Minimum sprinkler spacing is 12' (3.6 m).
- Sprinklers have a minimum flow requirement for each spacing as shown in the Flow Requirements Table on the reverse side.
- ECOH sprinklers are only to be used in systems hydraulically designed per NFPA 13, and for a minimum area of 1,500 ft² (139.4 m²) or 5 sprinklers, whichever is greater.
- Deflector to commodity clearance shall be a minimum of 18" (457mm).
- ECOH sprinklers shall be installed in unobstructed constructions as defined in NFPA 13. For open web truss construction, web thickness is not to exceed 1" (25mm).
- Sprinklers can be installed under a sloping ceiling not exceeding 2" (50.8mm) of rise in 12" (305mm).
- Maximum working pressure is 175 psi (12 bar) at the sprinkler.

Technical Data

Sprinkler Model	Thread Size	Orifice Size	Temperature Rating		Max. Ambient Temp.		Maximum Sprinkler Spacing	Maximum Coverage Area	Approvals	Sprinkler Identification Number (SIN)
			°F	°C	°F	°C				
GFR VELO-ECOH Upright ⁽¹⁾	¾" NPT (R¾)	0.70" (18mm)	165	74	100	38	20 ft. (6.1 m)	400 ft. ² (37.2 m ²)	1,2	R6553
			212	100	150	66				

⁽¹⁾ Minimum Spacing Between GFR VELO-ECOH Upright Sprinklers is 12 feet (3.6m).

Minimum Flow Requirements

Spacing ⁽¹⁾	Coverage Area	NFPA 13 - 1991 & Later				NFPA 13 - 1989 & Earlier						Nominal K Factor	
		Ordinary Hazard 1		Ordinary Hazard 2		Ordinary Hazard 1		Ordinary Hazard 2		Ordinary Hazard 3			
		0.15 gpm/ft ² (6.1 L/min/m ²) Density		0.20 gpm/ft ² (8.1 L/min/m ²) Density		0.16 gpm/ft ² (6.5 L/min/m ²) Density		0.19 gpm/ft ² (7.7 L/min/m ²) Density		0.21 gpm/ft ² (8.25 L/min/m ²) Density			
		Flow	Pressure	Flow	Pressure	Flow	Pressure	Flow	Pressure	Flow	Pressure		
gpm (L/min)		psi (bar)		gpm (L/min)		psi (bar)		gpm (L/min)		psi (bar)		US	Metric
20 ft. x 20 ft. (6.1m x 6.1m)	400 ft. ² (37.2m ²)	60.0 (227)	18.4 (1.3)	80.0 (302)	32.7 (2.3)	64.0 (242)	20.9 (1.5)	76.0 (287)	29.5 (2.1)	84.0 (318)	36.0 (2.5)	14	200

⁽¹⁾ For spacing and coverage areas less than 20 ft. x 20 ft. (6.1m x 6.1m) and 400 ft², the flows and pressures for the 20 ft. x 20 ft. (6.1m x 6.1m) spacing and 400 ft² (37.2m²) area must be used.

Maintenance

Model GFR VELO-ECOH Upright Extended Coverage Sprinklers should be inspected quarterly and the sprinkler system maintained in accordance with NFPA 25. Do not clean sprinklers with soap and water, ammonia or any other cleaning fluids. Remove dust by using a soft brush or gentle vacuuming. Remove any sprinkler that has been painted (other than factory applied) or damaged in any way. A stock of spare sprinklers should be maintained to allow quick replacement of damaged or operated sprinklers. Prior to installation, sprinklers should be maintained in the original cartons and packaging until used to minimize the potential for damage to sprinklers that would cause improper operation or non-operation.

Ordering Information Specify:

1. Sprinkler Model
2. Temperature Rating
3. Sprinkler Finish

Finishes⁽¹⁾

Standard Finishes
Bronze
Chrome Plated

⁽¹⁾ Other colors and finishes are available on special order. Consult factory for details.

Model H Sprinkler Wrench

Use Model H Wrench for Model GFR VELO-ECOH Upright Sprinkler removal and installation.



Patents: U.S. Patent No. 6,446,732

The equipment presented in this bulletin is to be installed in accordance with the latest pertinent Standards of the National Fire Protection Association, Factory Mutual Research Corporation, or other similar organizations and also with the provisions of governmental codes or ordinances whenever applicable. Products manufactured and distributed by Reliable have been protecting life and property for over 80 years, and are installed and serviced by the most highly qualified and reputable sprinkler contractors located throughout the United States, Canada and foreign countries.

Manufactured by



The Reliable Automatic Sprinkler Co., Inc.

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Revision lines indicate updated or new data.

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