

# Reliable®

## Model G VELO Pendent Very Extra Large Orifice Sprinkler

### Low Pressures for High Hazards 0.70" Orifice, 14.0 K, 7psi (0,5 bar) Minimum End - Head Pressure (SIN R4613)

#### Features

The Reliable Model G VELO pendent sprinkler offers opportunity for:

1. Pipe size reduction.
2. Fewer sprinklers.
3. Elimination of booster pumps.
4. The best choice for densities of 0.38 gpm/ft<sup>2</sup> (15 L/min /m<sup>2</sup>) or larger.
5. Simplifies future ESFR conversions.
6. Also includes additional Specific Application listing: (See detailed "UL Specification Application listing" described on the back page.)

**US Patents: 5.890.657 and 5.915.479**

#### Listings & Approvals

1. Listed by Underwriters Laboratories, Inc. and Certified by UL for Canada (cULus).
2. Approved by Factory Mutual (FM)
3. NYC MEA 258-93-E

#### UL Guide Number

VNIV

#### UL Listing Category

Sprinklers, Automatic & Open  
Specific Application Sprinklers

#### Technical Data

Sprinkler Type	Nominal K Factor		Sprinkler Height	Sprinkler Identification Number (SIN)
	US	Metric		
Pendent 0.70 orifice with 3/4" NPT (R3/4)	14.0	200.0	3.10" (79mm)	R4613

**Note:** This product has been tested and listed for storage applications to qualify its use in lieu of 5.6K or 8.0K Factor sprinklers for the protection of high-piled storage

#### Product Description

The Reliable Model G VELO sprinkler is a Very Extra Large Orifice pendent sprinkler that has been designed to control high challenge fires in both palletized and rack storage occupancies utilizing lower water pressures. The



Model G VELO pendent utilizes a center strut solder in compression fusible element.

It has been proven in UL and FM full-scale fire testing and complies with all applicable mechanical and hydraulic requirements of the latest sprinkler standards.

This product is intended for use as a standard spray sprinkler in hydraulically designed systems with a minimum pressure of 7 psi (0,5 bar) in accordance with the area/density curves of NFPA 13\* and for all area/density methods of design as referenced by Factory Mutual Loss Prevention Data Sheets.

#### Design Criteria

The following criteria apply when designing an automatic sprinkler system utilizing the Model G VELO sprinkler for NFPA 13\* applications.

- Sprinkler spacing shall be a minimum of 6 ft. (1.8m).
- Minimum design pressure 7 psi (0,5 bar).
- Factory Mutual (FM) Approval for Model G VELO sprinkler allows installation into drops or branch line fittings.
- Factory Mutual (FM) Loss Prevention Data Sheets contain requirements which differ from NFPA. The Model G VELO is Approved by Factory Mutual for all area/density methods of design as referenced by FM Loss Prevention Data Sheets.

**Note:** The Model G VELO sprinkler is not a "Large Drop" or "ESFR sprinkler".

#### Temperature Ratings

Classification	Sprinkler Rating		Maximum Ceiling Temperature		Frame Color
	°F	°C	°F	°C	
Ordinary	165	74	100	38	Uncolored
Intermediate	212	100	150	66	White
High	286	141	225	107	Blue

\* For sprinkler standards prior to 1999 edition of NFPA 13 use NFPA standards 231, 231C, 231D & 231F.

**The Reliable Automatic Sprinkler Co., Inc.,** 103 Fairview Park Drive, Elmsford, New York 10523

## Finishes

Standard Finishes <sup>(1)</sup>	Approvals
Natural Bronze <sup>(2)</sup> Bright Chrome Satin Chrome	Approved for all Temperature Ratings
<b>Special Application Finishes*</b>	
Lead Wax Wax/Lead	

<sup>(1)</sup> cULus listed.

<sup>(2)</sup> FM approved for Natural Bronze only.

## The UL Specific Application Listing is:

The Model G VELO pendent sprinkler is intended for use in accordance with NFPA 13\*. Standards when installed in accordance with the standard sprinkler positioning and area/density flow calculation requirements as specified in the respective standards. The Model G VELO Pendent sprinkler may be installed to protect single, double and multiple row and portable rack storage of Class I-IV group A and B plastics, cartoned, expanded or unexpanded, as well as exposed unexpanded with a maximum storage height of 20 ft. (6.5m), maximum ceiling height of 25 ft. (8.2m) or 27\*\* ft (8.8m) maximum ceiling height, 36" (914mm) minimum deflector to top of storage clearance, design density of 0.60 gpm/ ft<sup>2</sup>. (24 L/min /m<sup>2</sup>) and design area of 2000 ft<sup>2</sup>. (186m<sup>2</sup>) for wet systems and 2600 ft<sup>2</sup>. (242m<sup>2</sup>) for dry systems.

**\*\*Note:** Maximum 27ft ceiling height is allowed by NFPA 13\*, without in-rack sprinklers in a protected area, provided the ceiling sprinklers' discharge is increased to 0.6 gpm/ft<sup>2</sup> in a 2000 ft<sup>2</sup> design area.

**Note:** Factory Mutual (FM) Standards also allow the same 2000 ft<sup>2</sup>. (186m<sup>2</sup>) remote design area when VELO sprinklers are used in this situation.

## Installation

Reliable's Model G VELO Pendent sprinkler must be installed according to the NFPA Standards or the appropriate Factory Mutual Loss Prevention Data Sheet and the Authority Having Jurisdiction.

Installation Approvals	Distance from Deflector to Top of Commodity
Underwriters Laboratories, Inc. (cULus)	36"
Factory Mutual Research (FM)	

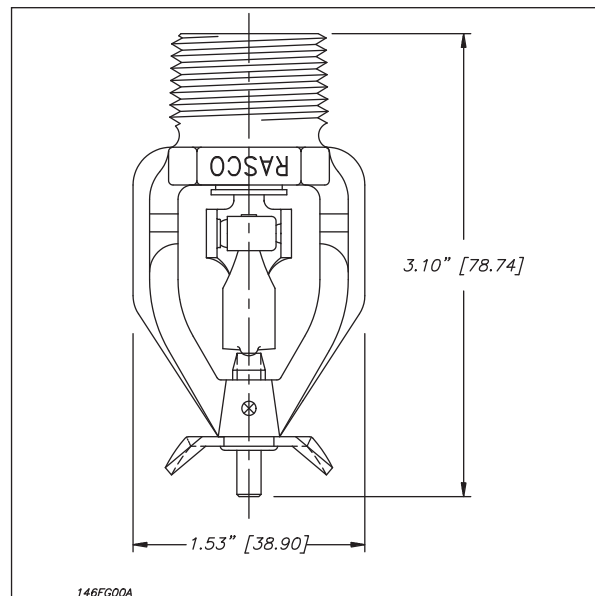
\* For sprinkler standards prior to 1999 edition of NFPA 13 use NFPA standards 231, 231C, 231D & 231F.

## Maintenance

Model G VELO Sprinkler should be inspected 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. 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. Remove any sprinkler which 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.

## Model H Sprinkler Wrench

Use only the Model H sprinkler wrench for sprinkler removal and installation. Any other type of wrench may damage the sprinkler.



MODEL G VELO PENDENT

The equipment presented in this bulletin is to be installed in accordance with the latest published 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



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