

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/ft² (15 L/min /m²) or larger.
5. Simplifies future ESFR conversions.

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) as a storage sprinkler.
3. NYC MEA 258-93-E

UL Guide Number

VNIV

UL Listing Category

Sprinklers, Automatic and Open; Sprinklers for Storage Protection (Control Mode Density Area)

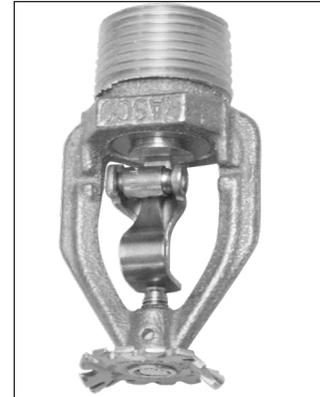
Technical Data

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 response 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*.

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 installations governed by Data Sheets 8-9 and 2-0.

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.

Finishes

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

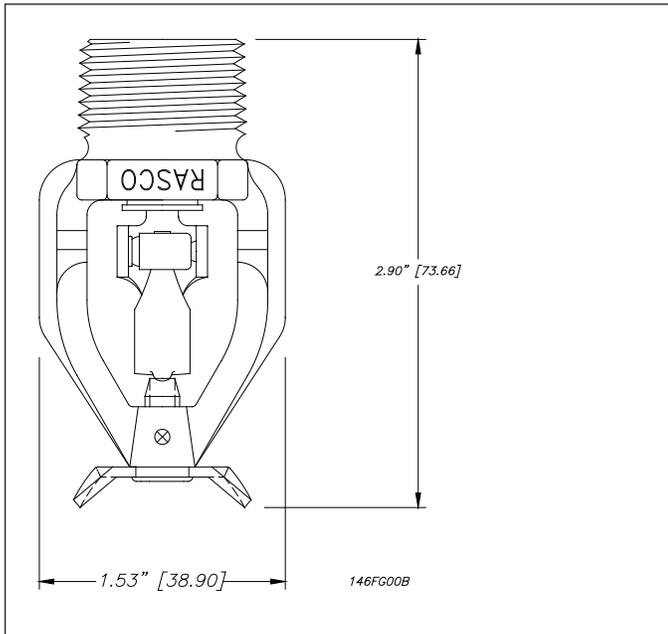
⁽¹⁾ cULus listed.

⁽²⁾ FM approved for Natural Bronze only.

Installation

Reliable's Model G VELO Pendant 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)	



MODEL G VELO PENDENT

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 Technical Data

Table A

ITEM	DESCRIPTION
Sprinkler Identification Number (SIN)	Pendent R4613
K Factor US (Metric)	14.0 (200)
Thread Size	3/4" (ISO 7-R3/4)
Sprinkler Orientation	Pendent
Maximum Working Pressure, PSI (bar)	175 PSI (12 bar)

Storage Type	NFPA	FM GLOBAL
Sprinkler Type	CMDA	Storage
Response Type	SR	SR
System Type	Wet	Wet
Temperature Rating F (C)	165,212,286 (74,100,141)	165,212,286 (74, 100,141)
Roof Construction	See NFPA 13	See FM Global 2-0
Ceiling Slope	See NFPA 13	See FM Global 2-0
Maximum Coverage Area	See NFPA 13	See FM Global 2-0
Minimum Coverage Area	See NFPA 13	See FM Global 2-0
Maximum Spacing	See NFPA 13	See FM Global 2-0
Minimum Spacing	See NFPA 13	See FM Global 2-0
Minimum Clearance to Commodity	See NFPA 13	See FM Global 2-0
Sprinkler Distance to Ceiling	See NFPA 13	See FM Global 2-0
Open Frame, Single, Double, Multiple Row, or Portable Rack Storage of Class I-IV, Cartoned Unexp Plastics	See NFPA 13	See FM 2-0 & 8-9
Solid Pile or Palletized Storage of Class I-IV and Cartoned Unexp Plastics	See NFPA 13	See FM 2-0 & 8-9
Idle Pallet Storage	See NFPA 13	See FM 2-0,8-9 & 8-24
Rubber Tire Storage	See NFPA 13	See FM 2-0 & 8-3
Rolled Paper Storage	See NFPA 13	N/A
Flammable Liquid Storage	See NFPA 30	See FM 7-29 & 8-9
Aerosol Storage	See NFPA 30B	See FM 7-31
Auto Components in Portable Racks	N/A	N/A

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 90 years.

Manufactured by



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Revision lines indicate updated or new data.