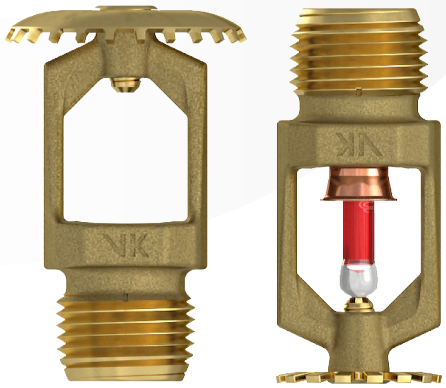
TECHNICAL DATA

Approved sprinklers for use with foam concentrates

Discharge Devices | Pendent & Upright Foam-Water Sprinklers

1 General description

Viking Pendent and Upright Foam-Water Sprinklers are non-aspirated foam discharge outlets for use in wet, dry, deluge, preaction and refrigerated area applications. Sprinkler applications are especially challenging for any foam due to the very low operating pressure and expansion reached. Applying foam through a sprinkler head is a very forceful application method and requires foam that can handle direct application and partial submersion into the fuel without losing its fire performance and burn-back resistance. Foams that shall be regarded as suitable for sprinkler applications shall also be able to withstand a limited time of water deluge directly onto the foam blanket without losing its burn-back properties. Viking Pendent and Upright Foam-Water Sprinklers are FM Approved and UL Listed in both closed head (with bulb) and open head (bulb removed) configurations.



Images for illustrative purposes only.

Features:

- Tested, Listed and Approved as Foam-Water Sprinklers with specific foam concentrates (see section 7)
- Wide range of K-factors available: K5.6 (K80), K8.0 (K115), K11.2 (K161), K16.8 (K242)

For use in high risk applications such as warehouses, aircraft hangers, oil and chemical loading areas, generator rooms, petro-chemical, pharmaceutical and alcohol production plants.

This technical data is intended for trained experts.

Technical data can be found on the KCA website at http://www.kcantincendi.com. The website may include a more recent edition of this technical data sheet.

For further information, please contact KCA or refer to the technical documentation. The contents of this publication are subject to modifications without notice.

2 Listings and approvals

Viking Foam-Water sprinklers are FM Approved and/or UL Listed as part of a fire extinguishing system combining designated foam concentrates, bladder tanks and proportioning devices. Approved and Listed system components can be found at www.approvalguide.com and iq.ulprospector.com

FM Approved – Low Expansion Foam Systems (FM5130)

UL Listed – GFGV.EX6016 (UL162)

"SFFF compatible" refers to this product as being part of a SFFF Foam system that has been tested to recognised standards. Not all configurations are available. Please consult technical data and/or the Approval/Listing for usage requirements.

3 Technical data

Please refer to relevant sprinkler data page.

4 Scope of delivery

Ensure that all components are complete and in good condition.
Viking Foam-Water Sprinklers are supplied boxed with protective shield or cap.

5 Availability

Please contact KCA for further information.
The product is available directly from KCA and official distributors only.

6 Product variants

Please refer to relevant sprinkler data page.

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7 Performance data

HYDROCARBON FUELS - FM																
FOMTEC FOAM	Foam concentrate	Nominal K-factor		Sprinkler Identification Number (SIN)		Height				Listed[2] foam design density		Water discharge density		Tested[3] sprinkler pressure		Approval
						min.		max.								
		US	Metric[4]	Upright	Pendent	ft.	m	ft.	m	gpm/ft²	lpm/m²	gpm/ft²	lpm/m²	psi	bar	
	Enviro ARK 3%	5.6	80.6	VK1001, VK3001	-	6.0	1.8	24.8	7.6	0.30	12.2	0.30	12.2	13	0.89	FM
		5.6	80.6	-	VK1021, VK3021	6.0	1.8	20.0	6.1	0.30	12.2	0.30	12.2	13	0.89	FM
		11.2	161.3	-	VK377, VK536	6.0	1.8	25.2	8.0	0.40	16.3	0.40	16.3	13	0.89	FM
	Enviro USP 3%	5.6	80.6	VK1001, VK3001	-	6.0	1.8	24.8	7.6	0.20	8.1	0.30	12.2	13	0.89	FM
		5.6	80.6	-	VK1021, VK3021	6.0	1.8	24.0	7.3	0.20	8.1	0.30	12.2	13	0.89	FM
		11.2	161.3	-	VK377, VK536	6.0	1.8	25.2	8.0	0.30	12.2	0.30	12.2	7	0.48	FM

ALCOHOL - IPA - FM														
FOMTEC FOAM	Foam concentrate	Nominal K-factor		Sprinkler Identification Number (SIN)		Height				Listed[2] foam design density		Tested[3] sprinkler pressure		Approval
						min.		max.						
		US	Metric[4]	Upright	Pendent	ft.	m	ft.	m	gpm/ft²	lpm/m²	psi	bar	
	Enviro ARK 3%	5.6	80.6	VK1001, VK3001	-	6.0	1.8	24.8	7.6	0.30	12.2	13	0.89	FM
		5.6	80.6	-	VK1021, VK3021	6.0	1.8	24.0	7.3	0.30	12.2	13	0.89	FM
		11.2	161.3	-	VK377, VK536	6.0	1.8	25.2	8	0.40	16.3	13	0.89	FM

KETONE - ACETONE - FM														
FOMTEC FOAM	Foam concentrate	Nominal K-factor		Sprinkler Identification Number (SIN)		Height				Listed[2] foam design density		Tested[3] sprinkler pressure		Approval
						min.		max.						
		US	Metric[4]	Upright	Pendent	ft.	m	ft.	m	gpm/ft²	lpm/m²	psi	bar	
	Enviro ARK 3%	5.6	80.6	VK1001, VK3001	-	6.0	1.8	24.8	7.6	0.30	12.2	13	0.89	FM
		5.6	80.6	-	VK1021, VK3021	6.0	1.8	24.0	7.3	0.30	12.2	13	0.89	FM
		11.2	161.3	-	VK377, VK536	6.0	1.8	25.2	8	0.30	12.2	7	0.48	FM

[1] This chart shows approvals available at the time of printing.
[2] Density indicated is minimum application density required per FM5130 Standard for Foam Extinguishing Systems. This density cannot be reduced.
[3] The pressure indicated is the minimum starting pressure required for the sprinkler. However, the minimum density shown overrides the minimum starting pressure (depending on head spacing) and cannot be reduced.
[4] Metric K-factor shown is for use when pressure is measured in bar. When pressure is measured in kPa, divide the metric K-factor shown by 10.0.

HYDROCARBON FUELS - UL									
FOMTEC FOAM	Foam concentrate	Nominal K-factor		Sprinkler Identification Number (SIN)		Listed[2] foam design density		Tested[3] sprinkler pressure		Approval
		US	Metric[4]	Upright	Pendent	gpm/ft²	lpm/m²	psi	bar	
	Enviro USP[5]	8.0	115.2	-	VK2021, VK3021	0.22	9.0	7	0.48	UL
		11.2	161.3	VK530, VK531, VK533	VK377, VK536	0.32	13.0	7	0.48	UL

[1] This chart shows listings and approvals available at the time of printing.
[2] Density indicated is minimum application density required per UL 162 - Foam Equipment and Liquid Concentrate Standard. This density cannot be reduced.
[3] The pressure indicated is the minimum starting pressure required for the sprinkler. However, the minimum density shown overrides the minimum starting pressure (depending on head spacing) and cannot be reduced.
[4] Metric K-factor shown is for use when pressure is measured in bar. When pressure is measured in kPa, divide the metric K-factor shown by 10.0.
[5] For fresh water use only.

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8 Installation

Refer to appropriate Installation Standards (i.e. NFPA, VdS, LPCB, etc.) and / or applicable FM Global Property Loss Prevention Data Sheets such as 4-12, Foam-Water Sprinkler Systems.

9 Operation

During fire conditions, the heat-sensitive liquid in the glass bulb expands, causing the glass to shatter, releasing the pip cap and sealing spring assembly. Water or Foam-Water Solution flowing through the sprinkler orifice strikes the sprinkler deflector, forming a uniform spray pattern to extinguish or control the fire.

10 Guarantee

For details of warranty, refer to KCA's current list price schedule or contact KCA directly.

11 Inspections, tests and maintenance

Refer to respective requirements, according to the relevant standards for Inspection, Testing and Maintenance. Refer to NFPA 25 for Inspection, Testing and Maintenance requirements.

If applicable, refer to FM Global Property Loss Prevention Datasheet 4-12 for specific test and commissioning criteria. In addition, the "Authority Having Jurisdiction" (AHJ) may have additional maintenance, testing and inspection requirements that must be followed.

WARNING

Any system maintenance or testing that involves placing a control valve or detection system out of service may eliminate the fire protection capabilities of that system. Prior to proceeding, notify all Authorities Having Jurisdiction. Consideration should be given to employment of a fire patrol in the affected area.

12 Disposal



At end of use the product described here should be disposed of via the national recycling system.

13 Accessories and spare parts

Please refer to relevant sprinkler data page.

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