

KIR

VIKING®



MAIRY



Address 5A Khaled Ibn AlWalid St.,
Sheraton, Heliopolis,
Cairo, Egypt

Tel 2267 5339 - 2266 4920

Fax 2266 4930

Mobile 0122 7389 528 - 0122 7905 248

0121 1178 250 - 0101 9542 941

e-mail info@kirmary.com

sales@kirmary.com

website www.kirmary.com



1	VIKING Distribution Letter
2	Viking Approval
3	VIKING Sprinklers Catalogue
4	VIKING Sprinklers Quick References
5	VIKING Sprinklers Technical Data



VIKING Distribution Letter



Trusted above all.

Viking S.A.
Zone Industrielle Haneboesch
L-4562 Differdange /

Niederorn
Luxembourg
Telephone +352 - 58 37 37 - 1
Facsimile +352 - 58 37 36

Differdange, 21st June 2018

TO WHOM IT MAY CONCERN

Subject: Distributorship Letter

This is to certify that the company **Kirmary For Engineering Supplies**, with main office in 5 A Khaled ebn el Waleed st., Sheraton, Cairo, Egypt, is a Viking S.A.'s authorized non-exclusive distributor for fire fighting water-based products, foam-based products and systems and for the Viking's brand "Fireking" line of hydrants.

This distributorship letter is valid until 31/12/2019

Sincerely,

Viking S.A.

VIKING
Viking S.A.
Z.I. Haneboesch
L - 4562 DIFFERDANGE
Tel : (352) 583737 - 1 Fax: (352) 583736

Alan Arelli
Managing Director



VIKING APPROVAL



Submittal for approval of materials



Date: 30/8/2018

Request no: SIA-MAT-MFF-0211-Rev 01

Project no. & title: E16104 - 04005/N-01 Ministry of Foreign Affairs - Plot 9A

Employer: 	Engineer: 	Contractor: 
--	--	--

1. Material description (one item only on this form) :

Fire Sprinkler

(No Sample)

dar Dar Al-Handasah
Shaer and Partners

30 AUG 2018

RECEIVED

Prj. No E16104-04005 Time 101

Area of application : All Project

Drawing ref. :

B.O.Q ref. no.:

Specification Ref. : 15300

Standards:

Attach all relevant technical literature marked to identify relevant description, current Test Certificates, samples as appropriate.

2. Manufacturer / supplier VIKING KERMARY

Company Name : KERMARY

Address :

Local agent :

dar Dar Al-Handasah
Shaer and Partners

Project No: E16104-04005

Requies:

Item No.	Qty	Unit	Remarks
1	300		
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3. Delivery :

Country of origin :

Availability

☐ Locally Manufactured

☐ Overseas

Delivery :

Ex-works/ total duration

Estimated time of arrival on site

Program :

Date material required on site

Latest date for order

We certify that the above submitted items have been reviewed in detail and are correct and in strict conformity with the contract drawings and specifications except as otherwise stated; also that the material sources indicated above have been reviewed in detail and that they will supply the submitted items in conformity with the above and deliver same timely.

Submitted by :

Abdulsalam Adil

Signature:

ash

Approved as Noted

1. Refer to attached selection sheets. Noting that contractor shall submit sample of each selected sprinkler for quality approval and to obtain final approval.
2. The quoted side wall sprinkler is not accepted, Refer to our selection and resubmit accordingly.
3. Country of origin certificate shall be included in next submission.

Yasser Amer

5/09/2018

A. Ram
6/9/18

- ☐ Approved
- ☒ Approved as noted
- ☐ Revise and resubmit
- ☐ Rejected
- ☒ Sample required
- ☐ Tests required
- ☒ Additional information required
- ☐ Manufacturer's guarantee required

Approval shall not relieve Contractor of his liabilities under the Contract or constitute authorization of any change to Contract Documents.

dar

Project no. & title: Project No.E16104-0400S/T-04 Ministerial Buildings On Plot 9B&10B
Request no: 27 Oct 2018
Date: 25/10/2018
SCD-MAT-MFF-00205 Rev 00

Employer:



Engineer:

dar

Contractor:



1. Material description (one item only on this form):

Fire Sprinkler

1CD

No Sample

Area of application: Fire Fighting Network

Drawing ref: N/A

Specification Ref: 15300

B.O.Q. ref. no: N/A

Standards: N/A

Attach all relevant technical literature marked to identify relevant description, current Test Certificates, samples as appropriate.

2. Manufacturer / supplier

Company Name: Viking

Address: 15 khaled ebn elwaled st, sheraton, cairo

Local agent: Kirmary

3. Delivery: Ex-Stock

Country of origin: germany

☐ Locally Manufactured

☒ Overseas

Delivery: Ex-works/ total duration

Estimated time of arrival on site

Program: Date material required on site

Latest date for order

01 NOV 2018

We certify that the above submitted items have been reviewed in detail and are correct and in strict conformity with the contract drawings and specifications except as otherwise stated, also that the material sources indicated above have been reviewed in detail and that they will supply the submitted items in conformity with the above and deliver same timely.

Submitted by:

Signature:

4. Engineer's Representative comments:

Refer to the comments on the attached sheet.

Shady elsayed

30-10-18

Signature:

A. Ra

Date: 31/10/18

- ☐ Approved
- ☒ Approved as noted
- ☐ Revise and resubmit
- ☐ Rejected
- ☒ Sample required
- ☐ Tests required
- ☒ Additional information required
- ☐ Manufacturer's guarantee required

Approval shall not relieve Contractor of his liabilities under the Contract or constitute authorization of any change to Contract Documents.

Submittal for approval of materials

dar Dar Al-Handasah
Shair and Partners

28 OCT 2018

RECEIVED

Prj. No. E16104-0400S Time

Date:

27-Oct-2018

Request no:

HAS-MAT-MFF-0150-00

Project no. & title: Ministry of Justice - Plot 19A

Employer: 	Engineer: dar	Contractor: 
--	-------------------------	--

1. Material description (one item only on this form) :

Fire Fighting Sprinklers

Soft Copy And Hard Copy Of Catalogue - Without Sample

Area of application : **All Building (19A-20A)**

Drawing ref. : **All Drawings (Fire Fighting)**

B.O.Q. ref. no.: **Cluster 09A-10A - Section 15300**

Specification Ref. : **SCG-2423-MINSTRS-SPC-M-F-001-SD-01**
Section : 15300

Standards: **All American Standards**

Attach all relevant technical literature marked to identify relevant description, current Test Certificates, samples as appropriate.

2. Manufacturer / supplier

Company Name :

Viking

Address :

5A Khaled Ebn Elwaleed Street, Sheraton, Cairo, Egypt

Local agent :

Kirmary Engineering Supplies Importing & Exporting Trading Agencies

3. Delivery :

Country of origin :

Availability

☐ Locally Manufactured ☒ Overseas

Delivery :

Ex-works/ total duration

Estimated time of arrival on site

Program :

Date material required on site

Latest date for order

dar Dar Al-Handasah
(Shair and Partners)

Project No: E16104-0400S

Received:

DESCRIPTION	Action	Info	Remarks
T.B			
Sou			
A.Ram			
Mohand			

We certify that the above submitted items have been reviewed in detail and are correct and in strict conformity with the contract drawings and specifications except as otherwise stated; also that the material sources indicated above have been reviewed in detail and that they will supply the submitted items in conformity with the above and deliver same timely.

Submitted by :

Eng. Akram Abdelaziz

Signature:

4. Engineer's Representative comments:

Refer to The Comments on The attached sheet.

Shady - 28/10/18

20-10-18

22/10/18
31/10/18

Signature:

A. Ram

Date: **31/10/18**

- ☐ Approved
- ☒ Approved as noted
- ☐ Revise and resubmit
- ☐ Rejected
- ☒ Sample required
- ☐ Tests required
- ☒ Additional information required
- ☐ Manufacturer's guarantee required

Approval shall not relieve Contractor of his liabilities under the Contract or constitute authorization of any change to Contract Documents.

dar

dar Bar Al-Handasah
Shair and Partners

23 OCT 2018

RECEIVED

Prj. No. E16104-0400S Time 3:15

Submittal for approval of materials

Date: 23-10-18

Request no: RME-MAT-MFF-0186-00

Project no. & title: MINISTRIES' COMPLEX (Area 3A & 4A)

Employer: 	Engineer: dar	Contractor:  Rowad Modern Engineering
--	-------------------------	--

1. Material description (one item only on this form) :

FIRE SPRINKLER

Attachment: (2 submittals+CD)WITHOUT SAMPLE

Area of application : ALL BUILDINGS

Drawing ref. : N/A

B.O.Q. ref. no.: N/A

Specification Ref. : 15300

Attach all relevant technical literature marked to identify relevant description, current Test Certificates, samples as appropriate.

2. Manufacturer / supplier

Company Name : VIKING

Address : 5A KHALED EBN EL WALEED ST, SHERATON, CAIRO, EGYPT

Local agent : KERMARY

3. Delivery :

Country of origin :

Availability

☐ Locally Manufactured

☒ Overseas

Delivery :

Ex-works/ total duration

[

]

Estimated time of arrival on site

[

]

Program :

Date material required on site

[

]

Latest date for order

[

]

dar Bar Al-Handasah
Shair and Partners

Project No. E16104-0400S

Received

Date	By	Initials	Final
23/10/18	T.B	✓	
30/10/18	A-Ran	✓	
30/10/18	Bou	✓	

Bar Egypt

We certify that the above submitted items have been reviewed in detail and are correct and in strict conformity with the contract drawings and specifications except as otherwise stated; also that the material sources indicated above have been reviewed in detail and that they will supply the submitted items in conformity with the above and deliver same timely.

Submitted by : Eng.Mohamed Fouad

Signature: 

submitted by : Eng.Wael Elragaby (project manager)

signature

4. Engineer's Representative comments:

Refer to The Comments on The attached sheet.

Shady - Khaled
20/10/18

23/10/18
30/10/18

Signature: 

Date: 30/10/18

- ☐ Approved
- ☒ Approved as noted
- ☐ Revise and resubmit
- ☐ Rejected
- ☒ Sample required
- ☐ Tests required
- ☐ Additional information required
- ☐ Manufacturer's guarantee required

Approval shall not relieve Contractor of his liabilities under the Contract or constitute authorization of any change to Contract Documents.

dar

Submittal for approval of materials



24 OCT 2018

RECEIVED

Date:




24 Oct 2018

Request no:

RSC-MAT-MFF-0142 Rev.00

Project no. & title: Proj. No. E16104-0400S Time E16104-0400S-1-05-DAR

Ministerial Buildings 13A&14A

Employer: 	Engineer: 	Contractor: 
--	--	--

1. Material description (one item only on this form) :

Fire Sprinklers

Attachment : Submittal + CD (Without Sample)

Area of application : Mechanical "Fire Fightings"

Drawing ref. : N/A

Specification Ref. : 15300

Standards:

B.O.Q. ref. no.:

Attach all relevant technical literature marked to identify relevant description, current Test Certificates, samples as appropriate.

2. Manufacturer / supplier

Company Name : VIKING
Address : 5A Khaled Abn Alwaleed st. - Shelaton, Cairo
Local agent : KIR MARY

dar - Dar Al-Handasah (Shair and Partners)			
Project No: E16104-0400S			
Received:			
Distribution	Approved	Ex-Info	Ex-Info
T.B	/		
Sou		/	
AP		/	
Dar Egypt			

3. Delivery :

Country of origin : USA

Availability : ☐ Locally Manufactured ☒ Overseas

Delivery : Ex-works/ total duration [] []
Estimated time of arrival on site [] []

Program : Date material required on site [] []
Latest date for order [] []

We certify that the above submitted items have been reviewed in detail and are correct and in strict conformity with the contract drawings and specifications except as otherwise stated; also that the material sources indicated above have been reviewed in detail and that they will supply the submitted items in conformity with the above and deliver same timely.

Submitted by : Eng. Kerdane Ezzam

Signature: Verdone Ezzam

4. Engineer's Representative comments:

Refer to The Comments on The attached sheet.

shady elsayed
30 10 018

24/10/18
31/10/18

Signature: A. Ra

Date: 31/10/18

- ☐ Approved
- ☒ Approved as noted
- ☐ Revise and resubmit
- ☐ Rejected
- ☒ Sample required
- ☐ Tests required
- ☒ Additional information required
- ☐ Manufacturer's guarantee required

Approval shall not relieve Contractor of his liabilities under the Contract or constitute authorization of any change to Contract Documents.

dar

dar Dr. Al-Hundeeh,
Shair and Partners
06 NOV 2018
RECEIVED
Proj. No. E16104-04035 Time.....

Request no: TMG-MAT-MFF-00200-Rev-No 00

<p>Employer:</p> 	<p>Engineer:</p>  	<p>Contractor :</p> <p>Alexandria Constructions</p> <p>Talaat Mostafa Group</p> 
--	--	---

Fire Protection : Sprinkler Heads	
No samples Attached	
Area of application :	Fire Protection
Drawing ref. :	N/A
Specification Ref. :	Section 15300
B.O.Q. ref. no.:	
Standards:	NFPA 13- UL/FM
Attach all relevant technical literature marked to identify relevant description, current Test Certificates, samples as appropriate.	

Company Name :	VIKING	Don Al-Husseini (Owner and Partner)
Address :	USA	
Local agent :	KIRMARY	Phone: 001-214-448-4485

Country of origin :	USA		SAU	✓
Availability	<input type="radio"/> Locally Manufactured <input checked="" type="radio"/> Overseas		ADN	✓
Delivery :	Ex-works/ total duration	[*]	Flux	✓
	Estimated time of arrival on site	[]		
			Dar Egypt	
Program :	Date material required on site	[]		
	Latest date for order	[]		

Submitted by: ENG: Ashraf Salah Signature: 
P.M ENG: Mohamed Abd Elwahed Signature: 

Refer to The Comments on the attached sheet

shady & skewed
18/11/18
OK

~~18/11/18~~

Signature: A. Rana

Date: 18/11/18

☒ Approved as noted

☐ Revise and resubmit

☐ Rejected

☒ Sample required

☐ Tests required

☒ Additional information required

☐ Manufacturer's guarantee required

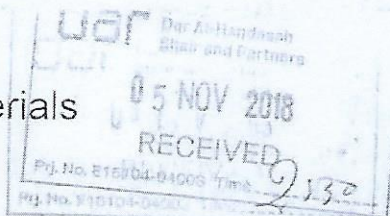
Attachement : 199 A4 pages + 1 CD

Material Buildings Plot 15A&16A

S-PRC-SS-02(F26) Rev 1 02:35 PM

dan

Submittal for approval of materials



Date: 05-11-2018

Request no: GAM-MAT-MFF-0196-00

Project no. & title: E16104-0400S- T-07 Ministerial Buildings on Plot 17A-18A

Employer: 	Engineer: 	Contractor:
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1. Material description (one item only on this form) :

Fire Fighting Sprinkler

NO Sample

Area of application : Fire Fighting Network

Drawing ref. : N/A

B.O.Q. ref. no.: N/A

Specification Ref. : 15300

Standards: As specified

Attach all relevant technical literature marked to identify relevant description, current Test Certificates, samples as appropriate.

2. Manufacturer / supplier

Company Name : VIKING

Address : CAIRO , Egypt

Local agent : LEDE

3. Delivery :

Country of origin : USA

Availability

☐ Locally Manufactured

☒ Overseas

Delivery : Ex-works/ total duration [] []

Estimated time of arrival on site [] []

Program : Date material required on site [] []

Latest date for order [] []

dar - Dar Al-Hadadash
Shaw and Partners

Project No. E16104-0400S

Distribution	Accepted	Date	File
T.B	✓		
AR	✓		
SCC	✓		

We certify that the above submitted items have been reviewed in detail and are correct and in strict conformity with the contract drawings and specifications except as otherwise stated; also that the material sources indicated above have been reviewed in detail and that they will supply the submitted items in conformity with the above and deliver same timely

Submitted by: (C.T.O.M) Eng. Ahmed Abdelraouf

Signature:

4. Engineer's Representative comments:

Refer to The Comments on The attached sheet.

Shady elsayed
7/11/18

10/11/18

Signature: A. Ra Date: 11/11/18

Approved Ministries 17,18 A

☒ Approved as noted

☐ Revise and resubmit

☐ Rejected

☒ Sample required

☐ Tests required

☒ Additional information required

☐ Manufacturer's

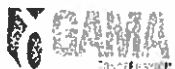
☐ guarantee

required

Approval shall not relieve Contractor of his obligations under the Contract or constitute authorization of any change to Contract Documents.



dar



MIVIDA PROJECT

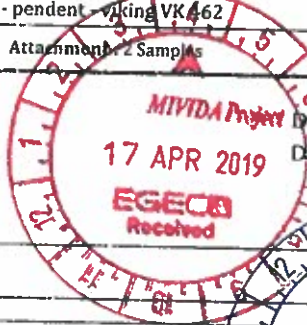


Misr

Contractor Name : Gama Construction				Transmittal-656	
				Rev.0	
TRANSMISSION OF DRAWINGS, DOCUMENTS, SAMPLES, ETC.				Date : 17-04-2019	
Contract		Dedicate To		SUBMITTED FOR	CODE
S-MVD172-PK117-MECH-GS-023		MECH		APPROVAL	1
Mivida - Construction Of Parcel		PK-117		YOUR INFORMATION	2
30A				Others	3
TO CS : Engineering House of Expertise		EGEC		ACTION	
SITE OFFICE				APPROVED	A
WE ARE SENDING HERewith / UNDER SEPARATE COVER, THE DRAWINGS/ DOCUMENTS / SAMPLES LISTED BELOW. (DELETE AS NECESSARY)				APPROVED AS NOTED	B
QTY	DRWS., SPEC. OR BOQ. REF.	ITEM SEQ NUMBER	DESCRIPTION	+TYPE	CODE
1			Sample for fire fighting sprinklers 1-up right - Viking VK300 2- pendent - Viking VK462 Attachment 2 Samples	SM	1 B

CONTRACTOR'S SIGNATURE :
RECEIVED BY CS :

A. Send



DATE : 17-04-2019
DATE :

CC: PROJECT MANAGER

CS to enter Action Codes and Remarks, and return to Contractor

CONSTRUCTION SUPERVISION REMARKS :

Mechanical

1- Samples are approved refer to submittal 314

2- Certificate of origin must be submitted before supplying material to site

3- Side wall sprinklers to be submitted (sample)

4- Architecture approval is a mandatory



Please sign for signed samples

Corrections or comments made relative to submittals during this review do not relieve the contractor from compliance with the requirements of the drawings and specifications. This check is only for review of general conformance with the design concept of the project and general compliance with the information given in the contract documents. The contractor is responsible for confirming and correlating all quantities and dimensions selecting fabrication processes and techniques of construction; coordinating his work with that of other trades, and performing his work in a safe and satisfactory manner.

CS SIGNATURE

RECEIVED BY CONTRACTOR

CC: PROJECT MANAGER

TYPE: SD - Shop drawings

SM - Sample

GT - Guarantee

MD - Manufacturer's Data

CT - Certificates

OT - Other

SUBMITTAL CODE

1: Submitted for Approval

2: Submitted for information

3: others



B: APPROVED AS NOTED

C: NOTED FOR RESUBMITTAL

D: NOT APPROVED



MIVIDA Project
1.9.SAMPLE TAG

EGECA

Turner

TRANSMITTAL NO : 656		Rev. (00)	DATE : 17-04-2019
PACKAGE NO : 117			
CONTRACTOR : Gama for Construction			
Sample for fire fighting sprinklers 1-up right - Viking VK300 2- pendent - viking VK 462			
BY CONTRACTOR			
CONTRACTOR'S SIGNATURE <i>A. Said</i>			
<div><input type="checkbox"/> A- APPROVED</div> <div><input checked="" type="checkbox"/> B- APPROVED AS NOTED</div> <div><input type="checkbox"/> C- NOT APPROVED</div>			
CONSULTANT <i>sherif mouris</i>		PM <i>[Signature]</i>	DATE 17 - 4 - 2019
BY CONSULTANT			



Submittal for approval of materials

31 OCT 2018

RECEIVED

Date: 31 October 2018

Request no: SAM-MAT-MFF-157 REV 00

Project no. & title: E16104-0400S/T-03 / New capital / Ministerial buildings (P. No. 7A & 8A)

Employer: 	Engineer: 	Contractor: 
--	--	---

1. Material description (one item only on this form) :

SPRINKLERS VIKING

CATALOGUE - QUICK REFERENCES - TECHNICAL DATA

NO Sample Board

1 CD

Area of application : MECHANICAL

Drawing ref. : N/A

B.O.Q ref. no: N/A

Specification Ref. : 15300

Standard: N/A

Attach all relevant technical literature marked to identify relevant description, current Test Certificates

2. Manufacturer / supplier

Company Name : VIKING

Address : 210 N Industrial Park Drive , Hastings MI 49058

Local agent : KIRMARY

5A ST. KHALED EBN EL WALEED - SHERATOON , CAIRO, EGYPT

3. Delivery :

Country of origin : 210 N Industrial Park Drive , Hastings MI 49058

Availability

☐ Locally Manufactured

☒ Overseas

Delivery :

Ex-works/ total duration

Estimated time of arrival on site

Program :

Date material required on site

Latest date for order

We certify that the above submitted items have been reviewed in detail and are correct and in full conformity with the contract drawings and specifications except as otherwise stated; also that the material sources indicated above have been reviewed in detail and that they will supply the submitted items in conformity with the above and deliver same timely.

Submitted by : Omar Bassiony

Signature: B

4. Engineer's Representative comments:

Refer to The Comments on the attached sheet.

Study & Reply

1 / 11 / 2018

Signature: A. R.

Date: 31/11/18

- ☐ Approved
- ☒ Approved as noted
- ☐ Revise and resubmit
- ☐ Rejected
- ☒ Sample required
- ☒ Tests required
- ☒ Additional information required
- ☐ Manufacturer's guarantee required

Approval shall not relieve Contractor of his liabilities under the Contract or constitute authorization of any change to Contract Documents.

Submittal for approval of materials

dar 004 4000000000
Sole and Partners

24 OCT 2018

RECEIVED Date: 24-Oct-18

Prj. No. E16104-0400S Time

Project no. & title:

E16104-0400S/T-08/Ministeral Buildings on Plots 19B & 20B

Employer:



Engineer:

dar

Contractor:



1. Material description (one item only on this form) :

Viking Sprinklers

Attachment :-

- Hard Copy
- CD
- No Sample

Area of application : All Building

Drawing ref. : N/A

B.O.Q. ref. no.: N/A

Specification Ref. : 15300

Standards: N/A

Attach all relevant technical literature marked to identify relevant description, current Test Certificates, samples as appropriate.

2. Manufacturer / supplier

Company Name : Kirmary

Address : 5A Khaled Ebn El Waleed st. Sheraton, Cairo, Egypt

Local agent : -

3. Delivery :

Ex-Stock

Country of origin : Egypt

Availability

☒ Locally Manufactured

☐ Overseas

Delivery :

Ex-works/ total duration

Estimated time of arrival on site

Program :

Date material required on site

Latest date for order

I hereby certify that the above submitted items have been reviewed in detail and are correct and in strict conformity with the contract drawings and specifications except as otherwise stated; also that the material sources indicated above have been reviewed in detail and that they will supply the submitted items in conformity with the above and deliver same timely.

Submitted by : ENG./ Ahmed ElMessery

Signature:

4. Engineer's Representative comments:

Refer to The Comments on The attached sheet.

Shady elsayed

30-10-18

31/10/18

Signature:

A. Ras

Date: 31/10/18

E16104-0400S

FILED

19B - 20B

☐ Approved

☒ Approved as noted

☐ Revise and resubmit

☐ Rejected

☒ Sample required

☐ Tests required

☒ Additional information required

☐ Manufacturer's guarantee required

Approval shall not relieve Contractor of his liabilities under the Contract or constitute authorization of any change to Contract Documents.

Chad

1/11/18

dar

**SIAC****SHAKER**

CONSULTANCY GROUP

IDG

INTERNATIONAL DESIGN GROUP

Alamein

Training Institute for the Construction Industry

اسم المشروع: جامعة العلمين الدولية للعلوم والتكنولوجيا (جامعة اهلية)

طلب اعتماد مواد Materials Submittal

رقم الطلب السابق:

SIAC/UNI/MATR/125

رقم طلب الاعتماد:

طلب جديد ☒

تاريخ الطلب السابق:

7/2/2019

تاريخ الطلب:

طلب معاد تقديمه ☐من أجل الاعتماد ☐من أجل الملاحظات والتعليقات ☐من أجل معلومات ☐

سبب تقدم طلب الاعتماد

الفرع:

اخرى ☐كهرباء ☐ميكانيكا ☒إنشائي ☐معماري ☐مدني ☐

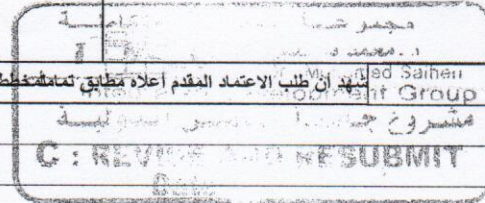
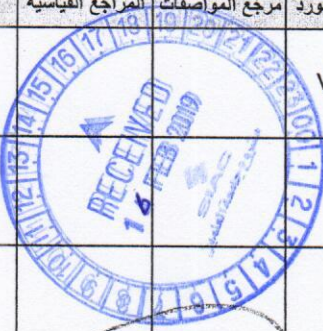
المرفقات:

حسابات ☐معلومات تقنية ☐عينات ☒شهادات ☐مخططات ☐كتالوجات ☐

ملاحظة يرجى إضافة مرفقات في حالة وجود بنود أكثر من الفراغ المتاح.

جدول المواد / المعدات:

مسلسل	الاسم / الرقم / الوصف	نوع البند	المصدر	المصنع / المورد	مرجع المواصفات	المراجع القياسية	حالة الاعتماد
1	Fire Fighting Sprinklers	Mech	KIRMARY	Viking			C
2							
3							



ملاحظات المقاول: ملاحظة يرجى إضافة مرفقات في حالة وجود بنود أكثر من الفراغ المتاح.

استثناء:

اسم المهندس:

التوقيع:

7/2/2019

موافقة على اعتماد المواد المقدمة أعلاه لا يعفي المقاول من مسؤولياته حسب العقد.

توصيات الاستشاري:

* Sample is missing.

* Selection of sprinklers Type as per project should be provided.

* All certifications should be provided.

5014/02

ممثل المالك:	ممثل الاستشاري:
الاسم:	الاسم:
الوظيفة:	الوظيفة:
التوقيع:	التوقيع:
التاريخ:	التاريخ:

مرفوض ويجب إعادة التقديم ☒معتمد ☐بدون اجراء ☐معتمد مع ملاحظات ☐غير ضرورية ☐

استلام المقاول بالنتيجة

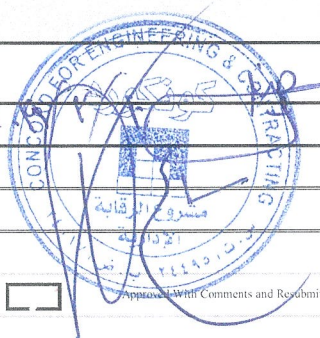
التوقيع:
التاريخ:

استلام الاستشاري للطلب

التوقيع:
التاريخ:



REQUEST FOR APPROVAL (RFA)			
NO.: ACA-RFA-775 (Rev. 00)			
PROJECT NAME: Construction of new Building for Administrative Control Authority			PROJECT NO.: 2399
CLIENT: Administrative Control Authority			
TO: Engineering Consultants Group		FROM: Concord For Engineering & Contracting	
ATTN: Eng. Ahmed Hanafy			
TREAD:	Civil o Elec.	o Arch o Infra	o Mech. o Inform. Tech.
			o HVAC Plu. & Fire Protection o Others
Doc. Refs.:		Location	General Project
Bill Ref. No.:		Bldg.:	All Buildings
Drwg. No.:		Level:	
Spec. No.:		Axis:	
		Site Works:	Fire Fighting Works
SUBJECT:- Fire Fighting Sprinklers (Viking - KirMary)			
REQUEST DESCRIPTION:			
Kindly Find Attached:-			
Manufacturer :- Viking			
Country :- USA			
Supplier :- KirMary			
For your review and approval.			
ATTACHMENT DOCUMENTS:-			
1- One Hard Copy			
2- One Soft Copy			
3- Sample Board			
REQUESTED BY			
NAME/SIGNATURE	TITLE	DATE	
Eng. Usama Nada	MEP Manager	10-Mar-19	
Eng. Sameh Mahfouz	Project Manager		



RESPONSE:			
<input type="checkbox"/>	Approved	<input checked="" type="checkbox"/>	Approved With Comments
<input type="checkbox"/>	Approved With Comments and Resubmit	<input type="checkbox"/>	Not Approved
<p>QUICK RESPONSE Upright Sprinkler Model: VK100 is approved as per attached Sample.</p> <p>Pendent Sprinkler Model: VK-102 is approved as per attached Sample.</p> <p>Horizontal sidewall Sprinkler Model: VK-605 is approved as per attached Sample.</p>			
ATTACHED DOCUMENTS:			
<p>Concealed Pendent Sprinkler Model: VK-492 is approved.</p> <p>→ Cover Plate Color should be Coordinated With Arch.</p>			
RESPONDED BY			
NAME/SIGNATURE	TITLE	DATE	
Received By			
NAME/SIGNATURE	TITLE	DATE	
Received By			
NAME/SIGNATURE	TITLE	DATE	



A. Tergoman
11-3-2019

P.D.C

11 March 2019

K I R M A R Y

for engineering supplies Grooved fitting LEDE

KirMary
Engineering Supplies
Importing & Exporting
Trading Agencies



KIRMARY

كبرماري
للتوريدات الهندسية
استيراد وتصدير
والتوكيلات التجارية

Sprinkler section as per spec.	Sprinkler Brand name	Type of Hazard	Temperature Rating	Sprinkler (k) factor	Sprinkler type of Response	Sprinkler Model no.
SCG-2423-MINSTRS-	VIKING	Ordinary Hazard [Recessed Pendant quick response sprinkler]	68 ° C	K=5.6	Quick Response	VK302 [Accepted subject to sample approval]
SPC-F-X-001-SD-01	VIKING	Light, Ordinary, and Extra Hazard [Upright standard response sprinkler]	68 ° C	K=5.6	Std Response	VK100 [Accepted subject to sample approval]
Section 15300 page 4 of 9	VIKING	Light Hazard [Extended coverage standard response side wall sprinkler]	68 ° C	K=5.6	Std Response	VK102 [Not accepted, VK-605 to be submitted instead]

٢٢٦٧٥٣٣٩-٢٢٦٦٤٩٢/٠٣ : تليفون القاهرة - شارع خالد بن الوليد شيراتون -
موبايل: ٠١٠١٩٥٢٩٤١ - ٠١٢١١١٧٨٢٥ - ٠١٢٢٧٣٨٩٥٢٨ - ٠١٢٢٧٨٠٥٢٤٨

E-mail: Kir.mary@yahoo.com

website: www.kirmary.com



TECHNICAL DATA

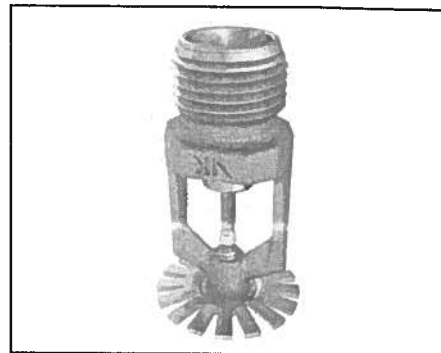
**MICROFAST® QUICK
RESPONSE PENDENT
SPRINKLER VK302 (K5.6)**

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058

Telephone: 269-945-9501 Technical Services: 877-384-5464 Fax: 269-818-1680 Email: techsvcs@vikingcorp.com
Visit the Viking website for the latest edition of this technical data page: www.vikinggroupinc.com

1. DESCRIPTION

The Viking Microfast® Quick Response Pendent Sprinkler VK302 is a small thermo-sensitive glass bulb spray sprinkler available with various finishes and temperature ratings to meet design requirements. The special Polyester and Electroless Nickel PTFE (ENT) coatings can be used in decorative applications where colors are desired. In addition, these coatings have been investigated for installation in corrosive atmospheres and are listed/approved as corrosion resistant as indicated in the Approval Charts. (Note: **FM Global approves ENT finish as corrosion resistant.** FM Global has no approval classification for Polyester coatings as corrosion resistant.)



2. LISTINGS AND APPROVALS



cULus Listed: Category VNIV



FM Approved: Class Series 2000



VdS Approved: Certificates G414009 and G414010



LPCB Approved



CE Certified: Standard EN 12259-1:1999, A3:2006 Certificate of Constancy of Performance 0832-CPR-S0021



CCCF Approved: Approved by the China Certification Center for Fire Products (CCCF)

Refer to Approval Charts and Design Criteria for listing and approval requirements that must be followed.

3. TECHNICAL DATA

Specifications:

Minimum Operating Pressure: 7 psi (0.5 bar)

Rated to 175 psi (12 bar) water working pressure

Factory tested hydrostatically to 500 psi (34.5 bar)

Thread size: 1/2" NPT, 15 mm BSP

Nominal K-Factor: 5.6 U.S. (80.6 metric**)

Glass-bulb fluid temperature rated to -65 °F (-55 °C)

Overall Length: 2-1/4" (58 mm)

*cULus Listing, FM Approval, and NFPA 13 installs require a minimum of 7 psi (0.5 bar). The minimum operating pressure for LPCB and CE Approvals ONLY is 5 psi (0.35 bar).

Material Standards:

Frame Casting: Brass UNS-C84400 or QM Brass

Deflector: Phosphor Bronze UNS-C51000 or Copper UNS-C19500

Bulb: Glass, nominal 3 mm diameter

Belleville Spring Sealing Assembly: Nickel Alloy, coated on both sides with PTFE Tape

Screw: Brass UNS-C36000

Pip Cap and Insert Assembly: Copper UNS-C11000 and Stainless Steel UNS-S30400

For Polyester Coated Sprinklers: Belleville Spring-Exposed

For ENT Coated Sprinklers: Belleville Spring-Exposed, Screw and Pipcap - ENT plated.

Ordering Information: (Also refer to the current Viking price list.)

Order Quick Response Pendent Sprinklers by first adding the appropriate suffix for the sprinkler finish and then the appropriate suffix for the temperature rating to the sprinkler base part number.

Finish Suffix: Brass = A, Chrome = F, White Polyester = M-W, Black Polyester = M-B, and ENT = JN

Temperature Suffix: 135 °F (57 °C) = A, 155 °F (68 °C) = B, 175 °F (79 °C) = D, 200 °F (93 °C) = E, 286 °F (141 °C) = G

For example, sprinkler VK302 with a Brass finish and a 155 °F (68 °C) temperature rating = Part No. 12979AB

Available Finishes And Temperature Ratings: Refer to Table 1.

Accessories: (Also refer to the current Viking price list.)



TECHNICAL DATA

**MICROFAST® QUICK
RESPONSE PENDENT
SPRINKLER VK302 (K5.6)**

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058

Telephone: 269-945-9501 Technical Services: 877-384-5464 Fax: 269-818-1680 Email: techsvcs@vikingcorp.com
Visit the Viking website for the latest edition of this technical data page: www.vikinggroupinc.com

Sprinkler Wrenches:

- A. Standard Wrench: Part No. 21475M/B (available since 2017).
- B. Wrench for Recessed Pendent Sprinklers: Part No. 13655W/B** (available since 2006)
- C. Optional Protective Sprinkler Cap Remover/Escutcheon Installer Tool*** Part No. 15915 (available since 2010)

**A ½" ratchet is required (not available from Viking).

***Allows use from the floor by attaching a length of 1" diameter CPVC tubing to the tool. Ideal for sprinkler cabinets. Refer to Bulletin F_051808.

Sprinkler Cabinets:

- A. Six-head capacity: Part No. 01724A (available since 1971)
- B. Twelve-head capacity: Part No. 01725A (available since 1971)

4. INSTALLATION

Refer to appropriate NFPA Installation Standards.

5. 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 flowing through the sprinkler orifice strikes the sprinkler deflector, forming a uniform spray pattern to extinguish or control the fire.

6. INSPECTIONS, TESTS AND MAINTENANCE

Refer to NFPA 25 for Inspection, Testing and Maintenance requirements.

7. AVAILABILITY

The Viking Microfast® Quick Response Pendent Sprinkler VK302 is available through a network of domestic and international distributors. See The Viking Corporation web site for the closest distributor or contact The Viking Corporation.

8. GUARANTEE

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

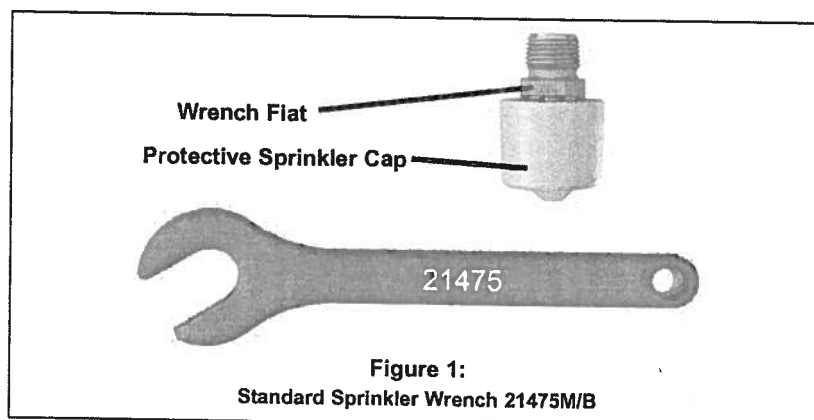


Figure 1:
Standard Sprinkler Wrench 21475M/B



TECHNICAL DATA

**MICROFAST® QUICK
RESPONSE PENDENT
SPRINKLER VK302 (K5.6)**

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058
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 Visit the Viking website for the latest edition of this technical data page: www.vikinggroupinc.com

TABLE 1: AVAILABLE SPRINKLER TEMPERATURE RATINGS AND FINISHES

Sprinkler Temperature Classification	Sprinkler Nominal Temperature Rating ¹	Maximum Ambient Ceiling Temperature ²	Bulb Color
Ordinary	135 °F (57 °C)	100 °F (38 °C)	Orange
Ordinary	155 °F (68 °C)	100 °F (38 °C)	Red
Intermediate	175 °F (79 °C)	150 °F (65 °C)	Yellow
Intermediate	200 °F (93 °C)	150 °F (65 °C)	Green
High	286 °F (141 °C)	225 °F (107 °C)	Blue

Sprinkler Finishes: Brass, Chrome, White Polyester, Black Polyester, and ENT

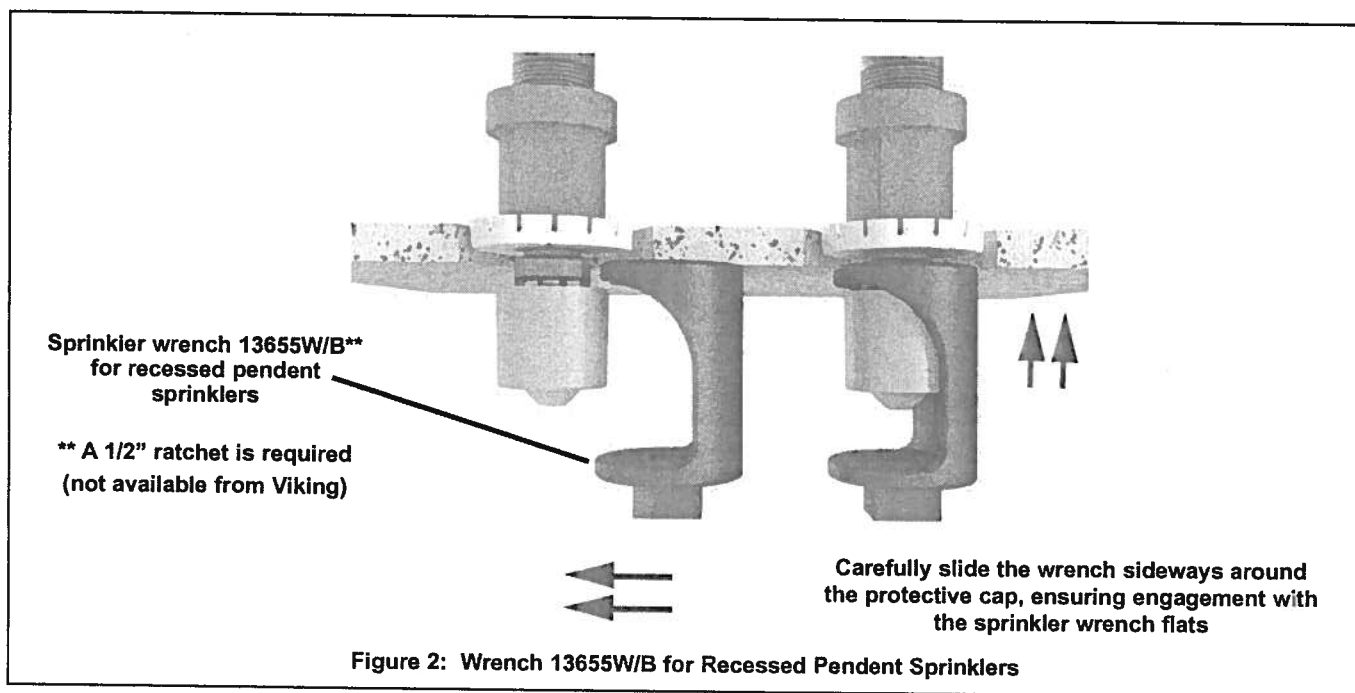
Corrosion-Resistant Coatings³: White Polyester, and Black Polyester. ENT in all temperature ratings except 135 °F (57 °C)

Footnotes

¹ The sprinkler temperature rating is stamped on the deflector.

² Based on NFPA-13. Other limits may apply, depending on fire loading, sprinkler location, and other requirements of the Authority Having Jurisdiction. Refer to specific installation standards.

³ The corrosion-resistant coatings have passed the standard corrosion test required by the approving agencies indicated in the Approval Charts. These tests cannot and do not represent all possible corrosive environments. Prior to installation, verify through the end-user that the coatings are compatible with or suitable for the proposed environment. For automatic sprinklers, the coatings indicated are applied to the exposed exterior surfaces only. Note that the spring is exposed on sprinklers with Polyester and ENT coatings. For ENT coated automatic sprinklers, the waterway is coated.





TECHNICAL DATA

**MICROMATIC® STANDARD
RESPONSE UPRIGHT
SPRINKLER VK100 (K5.6)**

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058
 Telephone: 269-945-9501 Technical Services: 877-384-5464 Fax: 269-818-1680 Email: techsvcs@vikingcorp.com
 Visit the Viking website for the latest edition of this technical data page: www.vikinggroupinc.com

1. DESCRIPTION

The Viking Micromatic® Standard Response Upright VK100 Sprinkler is a small, thermosensitive, glass-bulb spray sprinkler available in several different finishes and temperature ratings to meet design requirements. The special Polyester and Electroless Nickel PTFE (ENT) coatings can be used in decorative applications where colors are desired. In addition, these coatings have been investigated for installation in corrosive atmospheres and are listed/approved as corrosion resistant as indicated in the Approval Charts. (Note: FM Global approves the ENT coating as corrosion resistant. FM Global has no approval classification for Polyester coatings as corrosion resistant.)

Viking standard response sprinklers may be ordered and/or used as open sprinklers (glass bulb and pip cap assembly removed) on deluge systems. Refer to Ordering Instructions.



2. LISTINGS AND APPROVALS

cULus Listed: Category VNIV

FM Approved: Classes 2001, 2002, 2015, 2017, 2043

NOTE: Other International approval certificates are available upon request.
 Refer to Approval Charts and Design Criteria for listing and approval requirements that must be followed.

3. TECHNICAL DATA

Specifications:

Minimum Operating Pressure: 7 psi (0.5 bar)

Maximum Working Pressure: 175 psi (12 bar) wwp

Factory tested hydrostatically to 500 psi (34.5 bar)

Thread size: 1/2" NPT, 15 mm BSP

Nominal K-Factor: 5.6 U.S. (80.6 metric)**

Glass bulb fluid temperature rated to -65 °F (-55 °C)

Overall Length: 2-3/8" (60 mm)

† cULus Listing, FM Approval, and NFPA 13 installs require a minimum of 7 psi (0.5 bar). The minimum operating pressure for LPCB and CE Approvals ONLY is 5 psi (0.35 bar).

** Metric K-factor measurement shown is in Bar. When pressure is measured in kPa, divide the metric K-factor shown by 10.0.

Material Standards:

Frame Casting: Brass UNS-C84400 or QM Brass

Deflector: Brass UNS-C23000 or Copper UNS-C19500

Bulb: Glass, nominal 5 mm diameter

Belleville Spring Sealing Assembly: Nickel Alloy, coated on both sides with PTFE Tape

Screw: Brass UNS-C36000

Pip Cap and Insert Assembly: Copper UNS-C11000 and Stainless Steel UNS-S30400

For Polyester Coated Sprinklers: Belleville Spring-Exposed

For ENT coated Sprinklers: Belleville Spring - Exposed, Screw and Pipcap - ENT plated.

††Not for FM Approval.

Ordering Information: (Also refer to the current Viking price list.)

Order Micromatic® Standard Response Upright VK100 by first adding the appropriate suffix for the sprinkler finish and then the appropriate suffix for the temperature rating to the sprinkler base part number.

Finish Suffix: Brass = A, Chrome = F, White Polyester = M-W, Black Polyester = M-B, Wax Coated = C, Wax Over Polyester = V-W, ENT = JN

Temperature Suffix: 135 °F (57 °C) = A, 155 °F (68 °C) = B, 175 °F (79 °C) = D, 200 °F (93 °C) = E, 212 °F (100 °C) = M, 235 °F (141 °C) = G, 360 °F (182 °C) = H, 500 °F (260 °C) = L.

For example, sprinkler VK100 with a 1/2" thread, Brass finish and a 155 °F (68 °C) temperature rating = Part No. 12986AB

Available Finishes And Temperature Ratings: Refer to Table 1.



TECHNICAL DATA

MICROMATIC® STANDARD RESPONSE UPRIGHT SPRINKLER VK100 (K5.6)

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058
 Telephone: 269-945-9501 Technical Services: 877-384-5464 Fax: 269-818-1680 Email: techsvcs@vikingcorp.com
 Visit the Viking website for the latest edition of this technical data page: www.vikinggroupinc.com

Accessories: (Also refer to the Viking website.)

Sprinkler Wrenches:

- A. Standard Wrench: Part No. 21475M/B (available since 2017)
- B. Standard Wrench for Wax Coated Sprinklers: Part No. 10896W/B
- C. Socket Wrench for Wax Coated Sprinklers: Part No. 13577W/B* (available since 2006)

*A 1/2" ratchet is required (not available from Viking).

Sprinkler Cabinets:

- A. Six-head capacity: Part No. 01724A (available since 1971)
- B. Twelve-head capacity: Part No. 01725A (available since 1971)

4. INSTALLATION

Refer to appropriate NFPA Installation Standards.

5. 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 flowing through the sprinkler orifice strikes the sprinkler deflector, forming a uniform spray pattern to extinguish or control the fire.

6. INSPECTIONS, TESTS AND MAINTENANCE

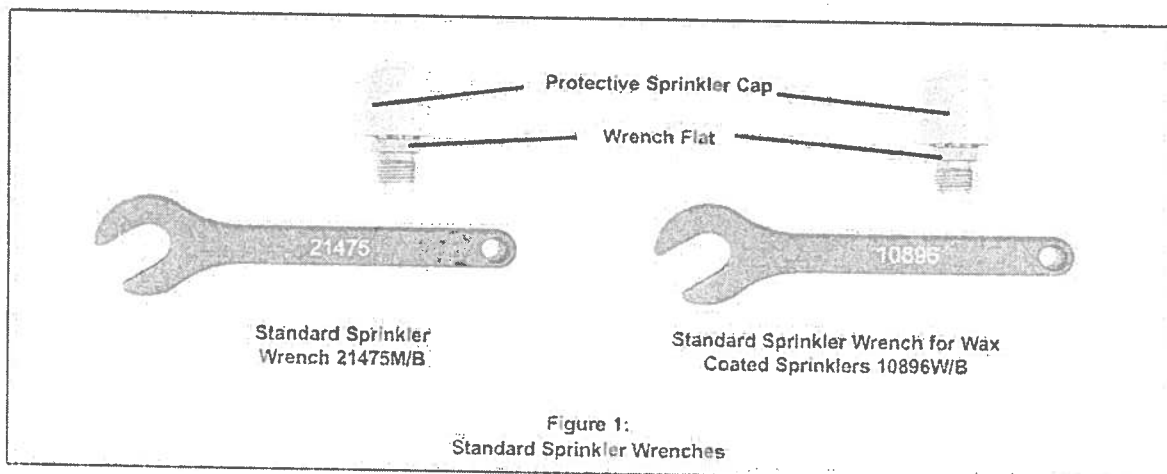
Refer to NFPA 25 for Inspection, Testing and Maintenance requirements.

7. AVAILABILITY

The Viking Micromatic® Standard Response Upright Sprinkler VK100 is available through a network of domestic and international distributors. See The Viking Corporation web site for the closest distributor or contact The Viking Corporation.

8. GUARANTEE

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





TECHNICAL DATA

**MICROMATIC® STANDARD
RESPONSE UPRIGHT
SPRINKLER VK100 (K5.6)**

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058
 Telephone: 269-945-9501 Technical Services: 877-384-5464 Fax: 269-818-1680 Email: techsvcs@vikingcorp.com
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TABLE 1: AVAILABLE SPRINKLER TEMPERATURE RATINGS AND FINISHES

Sprinkler Temperature Classification	Sprinkler Nominal Temperature Rating ¹	Maximum Ambient Ceiling Temperature ²	Bulb Color
Ordinary	135 °F (57 °C)	100 °F (38 °C)	Orange
Ordinary	155 °F (68 °C)	100 °F (38 °C)	Red
Intermediate	175 °F (79 °C)	150 °F (65 °C)	Yellow
Intermediate	200 °F (93 °C)	150 °F (65 °C)	Green
High	286 °F (141 °C)	225 °F (107 °C)	Blue
Extra High	360 °F (182 °C)	300 °F (149 °C)	Mauve
Ultra High ³	500 °F (260 °C)	465 °F (240 °C)	Black

Sprinkler Finishes: Brass, Chrome, White Polyester, Black Polyester, and ENT

Corrosion-Resistant Coatings⁴: White Polyester, Black Polyester, and Black PTFE in all temperature ratings. ENT in all temperature ratings except 135 °F (57 °C). Wax-Coated Brass and Wax over Polyester⁵ for sprinklers with the following temperature ratings:
 155 °F (68 °C) Lt. Brown Wax 175 °F (79 °C) Brown Wax 200 °F (93 °C) Brown Wax 286 °F (141 °C) Dk. Brown Wax⁵

Footnotes

¹ The sprinkler temperature rating is stamped on the deflector.

² Based on NFPA-13. Other limits may apply, depending on fire loading, sprinkler location, and other requirements of the Authority Having Jurisdiction. Refer to specific installation standards.

³ Sprinklers of Ultra-High temperature rating are intended for use inside ovens, dryers, or similar enclosures with normal operating temperatures above 300 °F (149 °C). Where the ambient temperature around the Ultra-High temperature rated sprinkler is significantly reduced below 300 °F (149 °C), response time may be severely retarded.

⁴ The corrosion-resistant coatings have passed the standard corrosion test required by the approving agencies indicated in the Approval Charts. These tests cannot and do not represent all possible corrosive environments. Prior to installation, verify through the end-user that the coatings are compatible with or suitable for the proposed environment. For automatic sprinklers, the coatings indicated are applied to the exposed exterior surfaces only. Note that the spring is exposed on sprinklers with Polyester and ENT coatings. For ENT coated automatic sprinklers, the waterway is coated.

⁵ Wax melting point is 170 °F (76 °C) for 286 °F (141 °C) temperature rated sprinklers.



VIKING SPRINKLERS

Catalogue

Standard Sprinklers & Spray Nozzles

Quick Reference Guide | EMEA





Introduction to Standard Sprinklers & Spray Nozzles

Viking is renowned for the development, manufacturing, sales and distribution of excellent fire protection technologies and has been a dependable partner in fire protection for many decades.

The broad product portfolio encompasses innovative and proven system components for water, foam and gas extinguishing systems as well as fire detection systems and is a reflection of Viking's unwavering focus on providing customers with the finest products and highest level of support.

Through Viking's dedicated and knowledgeable customer service, installers of fixed fire protection systems have access to those quality products and can place their trust in the professional and dedicated support services provided by Viking employees. From the smallest project to the largest endeavour, Viking is their single-point partner with the goal to provide the right material whenever and wherever needed.

Viking is passionate about fire protection and committed to the growth of the fixed fire protection industry. As Viking is completely focused and dedicated to this market, customers can have confidence that Viking has the expertise that they need to be successful. They can count on Viking's resources and technical expertise to help them whenever they have a challenge to overcome. And they can be sure to find the right product or solution for their project with the necessary approval or accreditation.

This quick reference guide provides an overview of Viking's comprehensive range of standard sprinklers and spray nozzles. Besides access to those products, customers benefit from a market leading technical support team across Europe and the Middle East, which also holds regular technical training courses on water, foam, gas and detection systems, products and maintenance.

Learn more at www.viking-emea.com.

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How to order products stating a base part number:

How to order glass bulb sprinklers							
Base part number	+	Finish code		+	Temperature (°C) code		Bulb colour
XXXXX	+	Brass	A	+	57	A	Orange
		Chrome	F		68	B	Red
		White	M-/W		79	D	Yellow
		Black	M-/B		93	E	Green
		Wax	C		141	G	Blue
		Electroless nickel PTFE (ENT)	JN		182	H	Mauve
		RAL			260	L	Black
				OPEN	Z	n/a	
Examples:		12987AE = 12987 + Brass (A) + 93°C (E) 12986AD = 12986 + Brass (A) + 79°C (D)					

How to order fusible link sprinklers							
Base part number	+	Finish code		+	Temperature (°C) code		Frame colour code
XXXXX	+	Brass	A	+	74	C	None
		Chrome	F		96	E	White
		White	M-/W		104	M	
		Black	M-/B		138	G	Blue
		Wax	C		141		
		RAL					
Example:		10284AC = 10284 + Brass (A) + 74°C (C)					

For all applicable approvals, please refer to the technical documentation or contact your local Viking sales office.



Standard Response | Glass Bulb

Pendent | K57 (4.2)



Base part number	10222
K-factor	K57 (4.2)
Thread size	1/2"/15 mm
SIN	VK004
Temperatures (°C)	57, 68, 79, 93, 141, 182
Finishes	Brass, Chrome, White, Black, RAL, Wax

Upright | K57 (4.2)



Base part number	10219
K-factor	K57 (4.2)
Thread size	1/2"/15 mm
SIN	VK002
Temperatures (°C)	57, 68, 79, 93, 141, 182
Finishes	Brass, Chrome, White, Black, RAL, ENT

Pendent | K80 (5.6)



Base part number	12987 (HP ¹)
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK102
Temperatures (°C)	57, 68, 79, 93, 141, 182, 260
Finishes	Brass, Chrome, White, Black, RAL, ENT, Wax



Base part number	09992 (HP ¹)
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK122
Temperatures (°C)	57, 68, 79, 93, 141, 182, 260
Finishes	Brass, Chrome, White, Black, RAL, Wax

Pendent | K115 (8.0)



Base part number	18264
K-factor	K115 (8.0)
Thread size	3/4"/20 mm
SIN	VK202
Temperatures (°C)	57, 68, 79, 93, 141, 182, 260
Finishes	Brass, Chrome, White, Black, RAL, ENT, Wax



Base part number	18269
K-factor	K115 (8.0)
Thread size	1/2"/15 mm
SIN	VK202
Temperatures (°C)	57, 68, 79, 93, 141, 182, 260
Finishes	Brass, Chrome, White, Black, RAL, ENT, Wax

Upright | K80 (5.6)



Base part number	12986
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK100
Temperatures (°C)	57, 68, 79, 93, 141, 182, 260
Finishes	Brass, Chrome, White, Black, RAL, ENT, Wax



Base part number	13001
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK145
Temperatures (°C)	57, 68, 79, 93, 141, 182
Finishes	Brass, Chrome, White, Black, RAL



Base part number	09993 (HP ¹)
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK124
Temperatures (°C)	57, 68, 79, 93, 141, 182, 260
Finishes	Brass, Chrome, White, Black, RAL

Upright | K115 (8.0)



Base part number	18263
K-factor	K115 (8.0)
Thread size	3/4"/20 mm
SIN	VK200
Temperatures (°C)	57, 68, 79, 93, 141, 182, 260
Finishes	Brass, Chrome, White, Black, RAL, Wax



Base part number	18268
K-factor	K115 (8.0)
Thread size	1/2"/15 mm
SIN	VK200
Temperatures (°C)	57, 68, 79, 93, 141, 182, 260
Finishes	Brass, Chrome, White, Black, RAL, ENT, Wax

Conventional | K80 (5.6)



Base part number	19383 (HP ¹)
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK118
Temperatures (°C)	57, 68, 79, 93, 141, 182
Finishes	Brass, Chrome, White, Black, RAL, Wax

Conventional | K115 (8.0)



Base part number	18270
K-factor	K115 (8.0)
Thread size	3/4"/20 mm
SIN	VK120
Temperatures (°C)	57, 68, 79, 93, 141, 182
Finishes	Brass, Chrome, White, Black, RAL, Wax

¹ HP = High Pressure (17 bar)



Standard Response | Glass Bulb

Concealed pendent | K80 (5.6)



Base part number	20034 (Coverplate 13504)
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK492
Temperatures (°C)	68, 79, 93
Finishes	Brass, Chrome, White, Black, RAL

Concealed pendent | K115 (8.0)



Base part number	18264A-X, 18294JN-X (Coverplate 12381)
K-factor	K115 (8.0)
Thread size	3/4"/20 mm
SIN	VK202
Temperatures (°C)	68, 79, 93
Finishes	Chrome, White, RAL, ENT



Base part number	12987A-X, 12987JN-X (Coverplate 12381)
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK102
Temperatures (°C)	68, 79, 93
Finishes	Chrome, White, RAL, ENT

Horizontal sidewall | K80 (5.6)



Base part number	12995
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK104
Temperatures (°C)	57, 68, 79, 93, 141, 182
Finishes	Brass, Chrome, White, Black, RAL, ENT



Base part number	09849
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK116 (17 bar)
Temperatures (°C)	57, 68, 79, 93, 141, 182
Finishes	Brass, Chrome, White, Black, RAL, ENT

Vertical sidewall | K80 (5.6)



Base part number	12996
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK106
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Brass, Chrome



Standard Response | Glass Bulb

Upright | K57 (4.2)



Part number	Size	Temp. (°C)	Finish
843080	3/8"/10 mm	57	Brass
843081		68	
843082		79	
843083		93	
843084		114	
843075		57	Chrome
843076		68	
843077		79	
843078		93	
845079		114	

Pendent | K57 (4.2)



Part number	Size	Temp. (°C)	Finish
845242	3/8"/10 mm	57	Brass
845243		68	
845244		79	
845245		93	
845246		114	
845237		57	Chrome
845238		68	
845239		79	
845240		93	
845241		114	

Flat spray pendent | K57 (4.2)



Part number	Size	Temp. (°C)	Finish
843130	3/8"/10 mm	57	Brass
843131		68	
843132		79	
843133		93	
843134		114	
843125		57	Chrome
843126		68	
843127		79	
843128		93	
843129		114	

Upright | K80 (5.6)



Part number	Size	Temp. (°C)	Finish
843090	1/2"/15 mm	57	Brass
843091		68	
843092		79	
843093		93	
843094		114	
843085		57	Chrome
843086		68	
843087		79	
843088		93	
843089		114	

Upright | K115 (8.0)



Part number	Size	Temp. (°C)	Finish
843100	1/2"/15 mm	57	Brass
843101		68	
843102		79	
843103		93	
843104		114	
843095		57	Chrome
843096		68	
843097		79	
843098		93	
845099		114	

Pendent | K80 (5.6)



Part number	Size	Temp. (°C)	Finish
845257	1/2"/15 mm	57	Brass
845258		68	
845259		79	
845260		93	
845261		114	
845252		57	Chrome
845253		68	
845254		79	
845255		93	
845256		114	

Pendent | K115 (8.0)



Part number	Size	Temp. (°C)	Finish
845272	1/2"/15 mm	57	Brass
845273		68	
845274		79	
845275		93	
845276		114	
845267		57	Chrome
845268		68	
845269		79	
845270		93	
845271		114	

Flat spray pendent | K80 (5.6)



Part number	Size	Temp. (°C)	Finish
843140	1/2"/15 mm	57	Brass
843141		68	
843142		79	
843143		93	
843144		114	
843135		57	Chrome
843136		68	
843137		79	
843138		93	
843139		114	

Flat spray upright | K80 (5.6)



Part number	Size	Temp. (°C)	Finish
843160	1/2"/15 mm	57	Brass
843161		68	
843162		79	
843163		93	
843164		114	
843155		57	Chrome
843156		68	
843157		79	
843158		93	
843159		114	



Quick Response | Glass Bulb

Pendent | K57 (4.2)



Base part number	067208
K-factor	K57 (4.2)
Thread size	1/2"/15 mm
SIN	VK331
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Brass, Chrome, White, Black, RAL



Base part number	06932B
K-factor	K57 (4.2)
Thread size	3/8"/10 mm
SIN	VK331
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Brass, Chrome, White, Black, RAL

Upright | K57 (4.2)



Base part number	06719B
K-factor	K57 (4.2)
Thread size	1/2"/15 mm
SIN	VK327
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Brass, Chrome, White, Black, RAL



Base part number	06931B
K-factor	K57 (4.2)
Thread size	3/8"/10 mm
SIN	VK327
Temperatures (°C)	57, 68, 79, 93, 141, 182, 260
Finishes	Brass, Chrome, White, Black, RAL

Pendent | K80 (5.6)



Base part number	12979
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK302
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Brass, Chrome, White, Black, RAL, ENT



Base part number	12282 (HP ¹)
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK317
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Brass, Chrome, White, Black, RAL

Pendent | K115 (8.0)



Base part number	18258
K-factor	K115 (8.0)
Thread size	3/4"/20 mm
SIN	VK352
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Brass, Chrome, White, Black, RAL, ENT



Base part number	18260
K-factor	K115 (8.0)
Thread size	1/2"/15 mm
SIN	VK352
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Brass, Chrome, White, Black, RAL, ENT

Upright | K80 (5.6)



Base part number	12978
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK300
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Brass, Chrome, White, Black, RAL, ENT



Base part number	12984
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK345
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Brass, Chrome, White, Black, RAL



Base part number	12281 (HP ¹)
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK315
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Brass, Chrome, White, Black, RAL

Upright | K115 (8.0)



Base part number	18257
K-factor	K115 (8.0)
Thread size	3/4"/20 mm
SIN	VK350
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Brass, Chrome, White, Black, RAL, ENT



Base part number	18259
K-factor	K115 (8.0)
Thread size	1/2"/15 mm
SIN	VK350
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Brass, Chrome, White, Black, RAL, ENT, Wax

Conventional | K80 (5.6)



Base part number	19391
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK310
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Brass, Chrome, White, Black, RAL

Conventional | K115 (8.0)



Base part number	18261
K-factor	K115 (8.0)
Thread size	3/4"/20 mm
SIN	VK354
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Brass, Chrome, White, Black, RAL

¹ HP = High Pressure (17 bar)



Quick Response | Glass Bulb

Concealed pendent | K57 (4.2)



Base part number	14262A (Coverplate 13504)
K-factor	K57 (4.2)
Thread size	1/2"/15 mm
SIN	VK465
Temperatures (°C)	68, 79, 93
Finishes	Brass, Chrome, White, RAL, ENT

Concealed pendent | K80 (5.6)



Base part number	13503A (Coverplate 13504)
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK462
Temperatures (°C)	68, 79, 93
Finishes	Brass, Chrome, White, RAL



Base part number	13667A (HP ¹) (Coverplate 13504)
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK463
Temperatures (°C)	68, 79, 93
Finishes	Brass, Chrome, White, RAL



Base part number	15480A (Coverplate 13504)
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK462 (MRI ²)
Temperatures (°C)	68, 79, 93
Finishes	Brass, Chrome, White, RAL



Base part number	12979A-x, 12979 JN-X (Coverplate 12381)
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK302
Temperatures (°C)	68, 79, 93
Finishes	Chrome, White, RAL

Concealed pendent | K115 (8.0)



Base part number	13614A (Coverplate 13504)
K-factor	K115 (8.0)
Thread size	3/4"/20 mm
SIN	VK202
Temperatures (°C)	57, 68, 79, 93, 141, 182, 260
Finishes	Chrome, White, RAL



Base part number	06666BA-X, 06666BJN-X (CP ³ 12381)
K-factor	K115 (8.0)
Thread size	3/4"/20 mm
SIN	VK352
Temperatures (°C)	68, 79, 93
Finishes	Chrome, White, RAL



Base part number	15481A (Coverplate 13504)
K-factor	K115 (8.0)
Thread size	3/4"/20 mm
SIN	VK464 (MRI ²)
Temperatures (°C)	68, 79, 93
Finishes	Chrome, White, RAL

Horizontal sidewall | K80 (5.6)



Base part number	12997
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK305
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Brass, Chrome, White, Black, RAL, ENT



Base part number	12285 (HP ¹)
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK319
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Brass, Chrome, White, Black, RAL, ENT

Horizontal sidewall | K115 (8.0)



Base part number	15591
K-factor	K115 (8.0)
Thread size	3/4"/20 mm
SIN	VK360
Temperatures (°C)	57, 68, 79, 93
Finishes	Brass, Chrome, White, Black, RAL

Vertical sidewall | K57 (4.2)



Base part number	08985
K-factor	K57 (4.2)
Thread size	3/8"/10 mm
SIN	VK337
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Brass, Chrome

Vertical sidewall | K80 (5.6)



Base part number	12983
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK306
Temperatures (°C)	57, 68, 79, 93, 141, 182
Finishes	Brass, Chrome

¹ HP = High Pressure (17 bar) | ² MRI = Magnetic Resonance Imaging | ³ CP = Coverplate



Quick Response | Glass Bulb

Upright | K57 (4.2)



Part number	Size	Temp. (°C)	Finish
843050	3/8"/10 mm	57	Brass
843051		68	
843052		79	
843053		93	
843054		114	Chrome
843045		57	
843046		68	
843047		79	
843048		93	
843049		114	

Pendent | K57 (4.2)



Part number	Size	Temp. (°C)	Finish
845197	3/8"/10 mm	57	Brass
845198		68	
845199		79	
845200		93	
845201		114	Chrome
845192		57	
845193		68	
845194		79	
845195		93	
845196		114	

Upright | K80 (5.6)



Part number	Size	Temp. (°C)	Finish
843060	1/2"/15 mm	57	Brass
843061		68	
843062		79	
843063		93	
843064		114	Chrome
843055		57	
843056		68	
843057		79	
843058		93	
843059		114	

Upright | K115 (8.0)



Part number	Size	Temp. (°C)	Finish
843070	1/2"/15 mm	57	Brass
843071		68	
843072		79	
843073		93	
843074		114	Chrome
843065		57	
843066		68	
843067		79	
843068		93	
843069		114	

Pendent | K80 (5.6)



Part number	Size	Temp. (°C)	Finish
845121	1/2"/15 mm	57	Brass
845123		68	
845124		79	
845125		93	
845126		114	Chrome
845207		57	
845208		68	
845209		79	
845210		93	
845211		114	

Pendent | K115 (8.0)



Part number	Size	Temp. (°C)	Finish
845227	1/2"/15 mm	57	Brass
845228		68	
845229		79	
845230		93	
845231		114	Chrome
845222		57	
845223		68	
845224		79	
845225		93	
845226		114	

Horizontal sidewall | K80 (5.6)



Part number	Size	Temp. (°C)	Finish
843972	1/2"/15 mm	57	Chrome
843973		68	
843974		79	
843975		93	
843976		114	

Concealed pendent | K80 (5.6)



Part number	Size	Temp. (°C)	Finish
845911	1/2"/15 mm	68	White
845912	(standard)	93	
845851	1/2"/15 mm	68	
845852	(long)	93	Chrome
845913	1/2"/15 mm	68	
845914	(standard)	93	
845852	1/2"/15 mm	68	
845454	(long)	93	

Flat spray pendent | K57 (4.2)



Part number	Size	Temp. (°C)	Finish
843140	1/2"/15 mm	57	Brass
843141		68	
843142		79	
843143		93	
843144		114	Chrome
843135		57	
843136		68	
843137		79	
843138		93	
843139		114	

Flat spray pendent | K115 (8.0)



Part number	Size	Temp. (°C)	Finish
844593	1/2"/15 mm	57	Brass
844594		68	
844595		79	
844596		93	
844597		114	Chrome
844588		57	
844589		68	
844590		79	
844591		93	
844592		114	

Flat spray upright | K80 (5.6)



Part number	Size	Temp. (°C)	Finish
843150	1/2"/15 mm	57	Brass
843151		68	
843152		79	
843153		93	
843154		114	Chrome
843145		57	
843146		68	
843157		79	
843148		93	
843149		114	

Flat spray pendent | K80 (5.6)



Part number	Size	Temp. (°C)	Finish
843120	1/2"/15 mm	57	Brass
843121		68	
843123		79	
843124		93	
843125		114	Chrome
843115		57	
843116		68	
843117		79	
843118		93	
843119		114	



Standard Response | Fusible Link

Pendent | K57 (4.2)



Base part number	05575
K-factor	K57 (4.2)
Thread size	1/2"/15 mm
SIN	VK008
Temperatures (°C)	74, 104, 141
Finishes	Brass, Chrome, White, Black, RAL, Wax

Upright | K57 (4.2)



Base part number	05574
K-factor	K57 (4.2)
Thread size	1/2"/15 mm
SIN	VK006
Temperatures (°C)	74, 104, 141
Finishes	Brass, Chrome, White, Black, RAL, Wax

Pendent | K80 (5.6)



Base part number	12972
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK110
Temperatures (°C)	74, 104, 141
Finishes	Brass, Chrome, White, Black, RAL, Wax

Pendent | K115 (8.0)



Base part number	18254
K-factor	K115 (8.0)
Thread size	3/4"/20 mm
SIN	VK206
Temperatures (°C)	74, 104, 141
Finishes	Brass, Chrome, White, Black, RAL, Wax



Base part number	18356
K-factor	K115 (8.0)
Thread size	1/2"/15 mm
SIN	VK206
Temperatures (°C)	74, 104, 141
Finishes	Brass, Chrome, White, Black, RAL, Wax

Upright | K80 (5.6)



Base part number	12973
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK108
Temperatures (°C)	74, 104, 141
Finishes	Brass, Chrome, White, Black, RAL, Wax

Upright | K115 (8.0)



Base part number	18253
K-factor	K115 (8.0)
Thread size	3/4"/20 mm
SIN	VK204
Temperatures (°C)	74, 104, 141
Finishes	Brass, Chrome, White, Black, RAL, Wax



Base part number	18255
K-factor	K115 (8.0)
Thread size	1/2"/15 mm
SIN	VK204
Temperatures (°C)	74, 104, 141
Finishes	Brass, Chrome, White, Black, RAL, Wax

Horizontal sidewall | K80 (5.6)



Base part number	12974
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK112
Temperatures (°C)	74, 104, 141
Finishes	Brass, Chrome

Flush pendent | K80 (5.6)



Base part number	06697B
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK400
Temperatures (°C)	74, 104
Finishes	Chrome, White



Quick Response | Fusible Link

Pendent | K57 (4.2)



Base part number	13961
K-factor	K57 (4.2)
Thread size	1/2"/15 mm
SIN	VK332
Temperatures (°C)	74, 96, 138
Finishes	Brass, Chrome, White, Black, RAL

Upright | K57 (4.2)



Base part number	13958
K-factor	K57 (4.2)
Thread size	1/2"/15 mm
SIN	VK328
Temperatures (°C)	74, 96, 138
Finishes	Brass, Chrome, White, Black, RAL

Pendent | K80 (5.6)



Base part number	17536
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK303
Temperatures (°C)	74, 96, 138
Finishes	Brass, Chrome, White, Black, RAL

Pendent | K115 (8.0)



Base part number	18274
K-factor	K115 (8.0)
Thread size	3/4"/20 mm
SIN	VK353
Temperatures (°C)	74, 96, 138
Finishes	Brass, Chrome, White, Black, RAL



Base part number	13954 (HP ¹)
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK318
Temperatures (°C)	74, 96, 138
Finishes	Brass, Chrome, White, Black, RAL



Base part number	18273
K-factor	K115 (8.0)
Thread size	1/2"/15 mm
SIN	VK353
Temperatures (°C)	74, 96, 138
Finishes	Brass, Chrome, White, Black, RAL

Upright | K80 (5.6)



Base part number	17535
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK301
Temperatures (°C)	74, 96, 138
Finishes	Brass, Chrome



Base part number	18275
K-factor	K115 (8.0)
Thread size	3/4"/20 mm
SIN	VK351
Temperatures (°C)	74, 96, 138
Finishes	Brass, Chrome, White, Black, RAL



Base part number	13953 (HP ¹)
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK316
Temperatures (°C)	74, 96, 138
Finishes	Brass, Chrome



Base part number	18272
K-factor	K115 (8.0)
Thread size	1/2"/15 mm
SIN	VK351
Temperatures (°C)	74, 96, 138
Finishes	Brass, Chrome, White, Black, RAL

Conventional | K80 (5.6)



Base part number	19392
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK311
Temperatures (°C)	74, 96, 138
Finishes	Brass, Chrome, White, Black, RAL



Base part number	18276
K-factor	K115 (8.0)
Thread size	3/4"/20 mm
SIN	VK355
Temperatures (°C)	74, 96, 138
Finishes	Brass, Chrome, White, Black, RAL

Flush pendent | K80 (5.6)



Base part number	19995
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK478
Temperatures (°C)	74, 96
Finishes	Chrome, White

Concealed pendent | K115 (8.0)



Base part number	18274A-X (Coverplate 12381)
K-factor	K115 (8.0)
Thread size	3/4"/20 mm
SIN	VK353
Temperatures (°C)	74, 96
Finishes	Brass, Chrome, White, Black, RAL

¹ HP = High Pressure (17 bar)



Quick Response | Fusible Link

Horizontal sidewall | K80 (5.6)



Base part number	13949
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK308
Temperatures (°C)	74, 96, 138
Finishes	Brass, Chrome, White, Black, RAL

Horizontal sidewall | K80 (5.6)



Base part number	13955 (HP ¹)
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK320
Temperatures (°C)	74, 96, 138
Finishes	Brass, Chrome, White, Black, RAL

Concealed horizontal sidewall | K80 (5.6)



Base part number	17555
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK481
Temperatures (°C)	74, 104
Finishes	Brass, Chrome, White, Black, RAL

Vertical sidewall | K80 (5.6)



Base part number	13951
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK309
Temperatures (°C)	74, 96
Finishes	Brass, Chrome, White

¹ HP = High Pressure (17 bar)



Standard Response | Glass Bulb | Extra Large Orifice (ELO)



Pendent | K161 (11.2)

Base part number	17961
K-factor	K161 (11.2)
Thread size	3/4"/20 mm
SIN	VK536
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Brass, Chrome, White, Black, RAL, ENT, Wax



Upright | K161 (11.2)

Base part number	09679
K-factor	K161 (11.2)
Thread size	3/4"/20 mm
SIN	VK530
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Brass, Chrome, White, Black, RAL, ENT, Wax

Quick Response | Glass Bulb | Extra Large Orifice (ELO)



Pendent | K161 (11.2)

Base part number	08337
K-factor	K161 (11.2)
Thread size	3/4"/20 mm
SIN	VK377
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Brass, Chrome, White, Black, RAL, ENT



Pendent | K161 (11.2)

Base part number	17489
K-factor	K161 (11.2)
Thread size	1/2"/15 mm
SIN	VK377
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Brass, Chrome, White, Black, RAL, ENT



Upright | K161 (11.2)

Base part number	10633
K-factor	K161 (11.2)
Thread size	3/4"/20 mm
SIN	VK531
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Brass, Chrome, White, Black, RAL, ENT



Base part number	19305
K-factor	K161 (11.2)
Thread size	1/2"/15 mm
SIN	VK5311
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Brass, Chrome, White, Black, RAL



Base part number	19304
K-factor	K161 (11.2)
Thread size	3/4"/20 mm
SIN	VK5311
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Brass, Chrome, White, Black, RAL

Quick Response | Fusible Link | Extra Large Orifice (ELO)



Concealed pendent | K161 (11.2)

Base part number	15764A
K-factor	K161 (11.2)
Thread size	3/4"/20 mm
SIN	VK469
Temperatures (°C)	74, 96
Finishes	Chrome, White, Black, RAL



Upright | K161 (11.2)

Base part number	13978
K-factor	K161 (11.2)
Thread size	3/4"/20 mm
SIN	VK533
Temperatures (°C)	74, 96, 138
Finishes	Brass, Chrome, White, Black, RAL



Standard Response | Glass Bulb | K40

Pendent | K40 (2.8)



Base part number	12994
K-factor	K40 (2.8)
Thread size	1/2"/15 mm
SIN	VK003
Temperatures (°C)	57, 68, 79, 93, 141, 182
Finishes	Brass, Chrome, White, Black, RAL, Wax

Pendent | K40 (2.8)



Base part number	09994 (HP ¹)
K-factor	K40 (2.8)
Thread size	1/2"/15 mm
SIN	VK023
Temperatures (°C)	57, 68, 79, 93
Finishes	Brass, Chrome, White, Black, RAL

Upright | K40 (2.8)



Base part number	13006
K-factor	K40 (2.8)
Thread size	1/2"/15 mm
SIN	VK001
Temperatures (°C)	57, 68, 79, 93, 141, 182
Finishes	Brass, Chrome, White, Black, RAL, Wax

Upright | K40 (2.8)



Base part number	09995 (HP ¹)
K-factor	K40 (2.8)
Thread size	1/2"/20 mm
SIN	VK021
Temperatures (°C)	57, 68, 79, 93, 141, 182
Finishes	Brass, Chrome, White, Black, RAL

Concealed pendent | K40 (2.8)



Base part number	13831A (Coverplate 13504)
K-factor	K40 (2.8)
Thread size	1/2"/15 mm
SIN	VK461
Temperatures (°C)	68, 79, 93
Finishes	Brass, Chrome, White, Black, RAL

Horizontal sidewall | K40 (2.8)



Base part number	09997
K-factor	K40 (2.8)
Thread size	1/2"/15 mm
SIN	VK015
Temperatures (°C)	57, 68, 79, 93, 141, 182
Finishes	Brass, Chrome, White, Black, RAL

Quick Response | Glass Bulb | K40

Pendent | K40 (2.8)



Base part number	12981
K-factor	K40 (2.8)
Thread size	1/2"/15 mm
SIN	VK329
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Brass, Chrome, White, Black, RAL

Pendent | K40 (2.8)



Base part number	12290 (HP ¹)
K-factor	K40 (2.8)
Thread size	1/2"/15 mm
SIN	VK342
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Brass, Chrome, White, Black, RAL

Upright | K40 (2.8)



Base part number	12980
K-factor	K40 (2.8)
Thread size	1/2"/15 mm
SIN	VK325
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Brass, Chrome, White, Black, RAL

Upright | K40 (2.8)



Base part number	12286 (HP ¹)
K-factor	K40 (2.8)
Thread size	1/2"/15 mm
SIN	VK340
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Brass, Chrome, White, Black, RAL

Horizontal sidewall | K40 (2.8)



Base part number	10035
K-factor	K40 (2.8)
Thread size	1/2"/15 mm
SIN	VK333
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Brass, Chrome, White, Black, RAL

Horizontal sidewall | K40 (2.8)



Base part number	12287 (HP ¹)
K-factor	K40 (2.8)
Thread size	1/2"/15 mm
SIN	VK344
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Brass, Chrome, White, Black, RAL

¹ HP = High Pressure (17 bar)



Quick Response | Fusible Link | K40

Pendent | K40 (2.8)



Base part number	13959
K-factor	K40 (2.8)
Thread size	1/2"/15 mm
SIN	VK330
Temperatures (°C)	74, 96, 138
Finishes	Brass, Chrome, White, Black, RAL

Pendent | K40 (2.8)



Base part number	13964
K-factor	K40 (2.8)
Thread size	1/2"/15 mm
SIN	VK343
Temperatures (°C)	74, 96, 138
Finishes	Brass, Chrome, White, Black, RAL

Upright | K40 (2.8)



Base part number	13956
K-factor	K40 (2.8)
Thread size	1/2"/15 mm
SIN	VK326
Temperatures (°C)	74, 96, 138
Finishes	Brass, Chrome

Upright | K40 (2.8)



Base part number	13963 (HP ¹)
K-factor	K40 (2.8)
Thread size	1/2"/15 mm
SIN	VK341
Temperatures (°C)	74, 96, 138
Finishes	Brass, Chrome, White, Black, RAL

Horizontal sidewall | K40 (2.8)



Base part number	13962
K-factor	K40 (2.8)
Thread size	1/2"/15 mm
SIN	VK334
Temperatures (°C)	74, 96, 138
Finishes	Brass, Chrome, White, Black, RAL

Horizontal sidewall | K40 (2.8)



Base part number	13965 (HP ¹)
K-factor	K40 (2.8)
Thread size	1/2"/15 mm
SIN	VK346
Temperatures (°C)	74, 96, 138
Finishes	Brass, Chrome, White, Black, RAL

Quick Response | Glass Bulb | COIN™

Upright | K57 (4.2)



Base part number	12943AD
K-factor	K57 (4.2)
Thread size	1/2"/15 mm
SIN	VK900
Temperatures (°C)	79
Finishes	Brass

Upright | K80 (5.6)



Base part number	20757
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK950
Temperatures (°C)	93
Finishes	Brass, ENT

Quick Response | Fusible Link | COIN™

Upright | K57 (4.2)



Base part number	12676AE
K-factor	K57 (4.2)
Thread size	1/2"/15 mm
SIN	VK901
Temperatures (°C)	96
Finishes	Brass

¹ HP = High Pressure (17 bar)



Stainless Steel | Standard Response | Glass Bulb

Pendent | K80 (5.6)



Base part number	06483B
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK132
Temperatures (°C)	57, 68, 79, 93, 141, 182, 260
Finishes	Stainless steel, Wax

Upright | K80 (5.6)



Base part number	05012B
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK130
Temperatures (°C)	57, 68, 79, 93, 141, 182, 260
Finishes	Stainless steel, Wax

Pendent | K57 (4.2)



Part number	Size	Temp. (°C)	Finish
845247	3/8"/10 mm	57	Stainless
845248		68	
845249		79	
845250		93	
845251		114	

Upright | K57 (4.2)



Part number	Size	Temp. (°C)	Finish
845006	3/8"/10 mm	57	Stainless
845007		68	
845008		79	
845009		93	
845010		114	

Flat spray pendent | K57 (4.2)



Part number	Size	Temp. (°C)	Finish
844917	3/8"/10 mm	57	Stainless
844918		68	
844919		79	
844920		93	
844921		114	

Pendent | K80 (5.6)



Part number	Size	Temp. (°C)	Finish
845262	1/2"/15 mm	57	Stainless
845263		68	
845264		79	
845265		93	
845266		114	

Upright | K80 (5.6)



Part number	Size	Temp. (°C)	Finish
845011	1/2"/15 mm	57	Stainless
845012		68	
845013		79	
845014		93	
845015		114	

Flat spray pendent | K80 (5.6)



Part number	Size	Temp. (°C)	Finish
843972	1/2"/15 mm	57	Stainless
843973		68	
843974		79	
843975		93	
843976		114	

Flat spray upright | K80 (5.6)



Part number	Size	Temp. (°C)	Finish
845056	1/2"/15 mm	57	Stainless
845057		68	
845058		79	
845059		93	
845060		114	

Pendent | K115 (8.0)



Part number	Size	Temp. (°C)	Finish
845277	1/2"/15 mm	57	Stainless
845278		68	
845279		79	
845280		93	
845281		114	

Upright | K115 (8.0)



Part number	Size	Temp. (°C)	Finish
845016	1/2"/15 mm	57	Stainless
845017		68	
845018		79	
845019		93	
845020		114	



Stainless Steel | Quick Response | Glass Bulb

Pendent | K80 (5.6)



Base part number	14692
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK339
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Stainless steel

Upright | K80 (5.6)



Base part number	14693
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK338
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Stainless steel

Pendent | K57 (4.2)



Part number	Size	Temp. (°C)	Finish
845202	3/8"/10 mm	57	Stainless
845203		68	
845204		79	
845205		93	
845206		114	

Upright | K57 (4.2)



Part number	Size	Temp. (°C)	Finish
844070	3/8"/10 mm	57	Stainless
844071		68	
844072		79	
844073		93	
844074		114	

Flat spray pendent | K57 (4.2)



Part number	Size	Temp. (°C)	Finish
844927	3/8"/10 mm	57	Stainless
844928		68	
84499		79	
844930		93	
844931		114	

Flat spray upright | K80 (5.6)



Part number	Size	Temp. (°C)	Finish
845051	1/2"/15 mm	57	Stainless
845052		68	
845053		79	
845054		93	
845055		114	

Pendent | K80 (5.6)



Part number	Size	Temp. (°C)	Finish
845217	1/2"/15 mm	57	Stainless
845218		68	
845219		79	
845220		93	
845221		114	

Upright | K80 (5.6)



Part number	Size	Temp. (°C)	Finish
844075	1/2"/15 mm	57	Stainless
844076		68	
844077		79	
844078		93	
844079		114	

Horizontal sidewall | K80 (5.6)



Part number	Size	Temp. (°C)	Finish
844065	1/2"/15 mm	57	Stainless
844066		68	
845067		79	
845068		93	
845069		114	

Flat spray pendent | K80 (5.6)



Part number	Size	Temp. (°C)	Finish
844932	1/2"/15 mm	57	Stainless
844933		68	
844934		79	
844935		93	
844936		114	

Pendent | K115 (8.0)



Part number	Size	Temp. (°C)	Finish
845232	1/2"/15 mm	57	Stainless
845233		68	
845234		79	
845235		93	
845236		114	

Upright | K115 (8.0)



Part number	Size	Temp. (°C)	Finish
844080	1/2"/15 mm	57	Stainless
844081		68	
844082		79	
844083		93	
844084		114	



Spray Nozzles



Frame style solid cone automatic or open						
SIN	Angle	K-factor	Part number	Thread	Temp.	Finishes
N/A	60°	20 (1.4)	16964	1/2"/15 mm	57 68 79 93 141 Open (Z) Open (Z)	Brass Black PTFE
		27 (1.9)	16960			
		40 (2.8)	16956			
		57 (4.2)	16952			
		80 (5.6)	16948			
	90°	20 (1.4)	16965			
		27 (1.9)	16961			
		40 (2.8)	16957			
		57 (4.2)	16953			
		80 (5.6)	16949			
	120°	20 (1.4)	16966			
		27 (1.9)	16962			
		40 (2.8)	16958			
		57 (4.2)	16954			
		80 (5.6)	16950			
	150°	20 (1.4)	16967			
		27 (1.9)	16963			
		40 (2.8)	16959			
		57 (4.2)	16955			
		80 (5.6)	16951			



Model A, B, C & D solid cone open (medium-high velocity)						
SIN	Angle	K-factor	Part number	Thread	Finishes	
VK740	30°	17 (1.2)	05133A_J	1/2"/15 mm	Brass: Replace " " with "A" ENT: Replace " " with "J"	
VK750		29 (2.0)	05134A_J			
VK760		40 (2.8)	05135A_J			
VK770		57 (4.2)	19505_J			
VK780		62 (4.3)	19506_J			
VK741	60°	17 (1.2)	05133A_K			
VK751		29 (2.0)	05134A_K			
VK761		40 (2.8)	05135A_K			
VK771		57 (4.2)	19505_K			
VK781		62 (4.3)	19506_K			
VK742	90°	17 (1.2)	05133A_L			
VK752		29 (2.0)	05134A_L			
VK762		40 (2.8)	05135A_L			
VK772		57 (4.2)	19505_L			
VK782		62 (4.3)	19506_L			
VK743	120°	17 (1.2)	05133A_M			
VK753		29 (2.0)	05134A_M			
VK763		40 (2.8)	05135A_M			
VK773		57 (4.2)	19505_M			
VK783		62 (4.3)	19506_M			
VK744	140°	17 (1.2)	05133A_N			
VK754		29 (2.0)	05134A_N			
VK764		40 (2.8)	05135A_N			
VK774		57 (4.2)	19505_N			
VK784		62 (4.3)	19506_N			



Spray Nozzles



Model E solid cone open (low-medium velocity)					
SIN	Angle	K-factor	Part number	Thread	Finishes
VK810	65°	17 (1.2)	12873_Z	1/2"/15 mm	Brass: Replace " _ " with "A" ENT: Replace " _ " with "J"
		26 (1.8)	12872_Z		
		33 (2.3)	12871_Z		
		46 (3.2)	12870_Z		
		59 (4.1)	12869_Z		
		80 (5.6)	12868_Z		
		104 (7.2)	12867_Z		
VK811	80°	17 (1.2)	12880_Z		
		26 (1.8)	12879_Z		
		33 (2.3)	12878_Z		
		46 (3.2)	12877_Z		
		59 (4.1)	12876_Z		
		80 (5.6)	12875_Z		
		104 (7.2)	12874_Z		
VK812	95°	17 (1.2)	12887_Z		
		26 (1.8)	12886_Z		
		33 (2.3)	12885_Z		
		46 (3.2)	12884_Z		
		59 (4.1)	12883_Z		
		80 (5.6)	12882_Z		
		104 (7.2)	12881_Z		
VK813	110°	17 (1.2)	12894_Z		
		26 (1.8)	12893_Z		
		33 (2.3)	12892_Z		
		46 (3.2)	12891_Z		
		59 (4.1)	12890_Z		
		80 (5.6)	12889_Z		
		104 (7.2)	12888_Z		
VK814	125°	17 (1.2)	12901_Z		
		26 (1.8)	12900_Z		
		33 (2.3)	12899_Z		
		46 (3.2)	12898_Z		
		59 (4.1)	12897_Z		
		80 (5.6)	12896_Z		
		104 (7.2)	12895_Z		
VK815	140°	17 (1.2)	12908_Z		
		26 (1.8)	12907_Z		
		33 (2.3)	12906_Z		
		46 (3.2)	12905_Z		
		59 (4.1)	12904_Z		
		80 (5.6)	12903_Z		
		104 (7.2)	12902_Z		
VK816	160°	17 (1.2)	12915_Z		
		26 (1.8)	12914_Z		
		33 (2.3)	12913_Z		
		46 (3.2)	12912_Z		
		59 (4.1)	12911_Z		
		80 (5.6)	12910_Z		
		104 (7.2)	12909_Z		
VK817	180°	17 (1.2)	12922_Z		
		26 (1.8)	12921_Z		
		33 (2.3)	12920_Z		
		46 (3.2)	12919_Z		
		59 (4.1)	12918_Z		
		80 (5.6)	12917_Z		
		104 (7.2)	12916_Z		



Spray Nozzles



Model C-1 window sprinklers				
SIN	K-factor	Part number	Thread	Finishes
VK790	22 (1.5)	01320B_	1/2"/15 mm	Brass: Replace " _ " with "A" ENT: Replace " _ " with "J"
VK791	30 (2.1)	01321B_		
VK792	43 (3.0)	01322B_		
VK793	62 (4.3)	01323B_		
VK794	84 (5.8)	01324B_	3/4"/20 mm	
VK795	105 (7.3)	01325B_		
VK796	117 (8.1)	01326B_		



Model A, B, C & D dust covers		
K-factor	Part number	Material
17-47 (1.2-3.2)	02409A	Polyethylene
53-71 (4.1-4.9)	02410A	



Model E blow-off plugs		
K-factor	Part number	Material
17, 26, 33 (1.2, 1.8, 2.3)	13161	EPDM rubber
46 (3.2)	13159	
59 (4.1)	13160	
80 (5.6)	13161	
104 (7.2)	13162	



	K-factor	Part number Brass	Part number Stainless
RD21 frame style	14 (0.98)	844800	844807
	20 (1.4)	844801	844808
	28 (1.9)	844802	844809
	46 (3.2)	844803	844810
	57 (3.7)	844804	844811
	80 (5.6)	844805	844812
	115 (8.0)	844806	844813



	K-factor	Part number Brass	Part number Stainless
MXD-SD solid cone	20 (1.4)	122395	845489
	28 (1.9)	845486	845490
	40 (2.8)	845487	845491
	57 (3.7)	845488	845492



	K-factor	Part number Brass	Part number Stainless
MXD-WD window nozzle	1.7 (0.1)	217470	841863
	16 (1.1)	131170	841864
	20 (1.4)	131182	841865
	25 (1.7)	131194	841866
	32 (2.2)	131200	841867
	40 (2.9)	131212	841868
	50 (3.6)	131224	841869
	60 (4.2)	131236	841870

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www.viking-emea.com



For further information, please contact your local Viking sales office or refer to the technical documentation.
The contents of this publication are subject to modifications without notice.

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Trusted above all.



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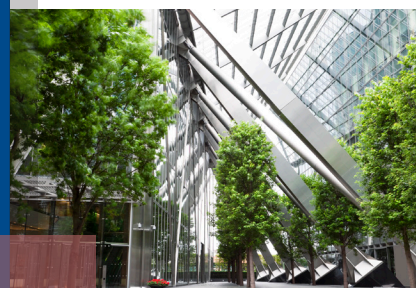


VIKING SPRINKLERS

Quick References



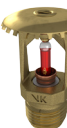





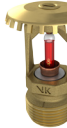



Standard Coverage Sprinkler Quick Reference Guide

This guide is intended for general reference only. Prior to the design, layout, and/or installation of any sprinkler system, please refer to Viking's technical documentation and always consult with the AHJ. Viking makes no representation or warranty as to whether following this guide will satisfy any rule or requirement. Please visit www.vikinggroupinc.com for the most current technical data and product specifications. All products must be installed in accordance with the manufacturer's current installation instructions. Viking reserves the right to change product specifications at any time without notice and without incurring obligation.



Light, Ordinary, and Extra Hazard

Standard Response

	Recessed Pendant	Domed Concealed Pendant	Upright	Conventional	Stainless Steel Upright	Stainless Steel Recessed Pendant
5.6 K	VK102 (p/n 12987) Temp Range 135-500°F  GB	VK102-D (p/n 12987A-X) Temp Range 155-200°F  GB	VK100 (p/n 12986) Temp Range 135-500°F  GB	VK118 (p/n 19383) Temp Range 155-360°F  GB	VK130 (p/n 05012B) Temp Range 155-500°F  GB	VK132 (p/n 06483B) Temp Range 155-500°F  GB
8.0 K	VK202 (p/n 18264) Temp Range 155-500°F  GB	VK202-D (p/n 10142A-X) Temp Range 155-200°F  GB	VK200 (p/n 18263) Temp Range 155-500°F  GB	VK120 (p/n 18270) Temp Range 155-360°F  GB		
11.2 K	VK536 (p/n 07961) Temp Range 155-286°F  GB		VK530 (p/n 09679) Temp Range 155-286°F  GB			

GB - Glass Bulb
 FL - Fusible Link

★ - Also available in fusible link version.




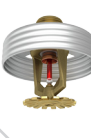








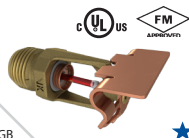















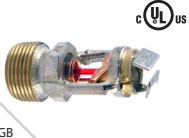







(NOTE) The above photos are for illustrative purposes only and might not exactly match the sprinkler indicated. Always refer to the technical documentation on Viking's web site for product dimensions and physical characteristics.

- Viking sprinklers are available from the factory with three wraps of PTFE tape applied to the threads at an additional charge. To order, add a "T" to the end of the part number. See list price book for pricing details.
- Select 8.0 and 11.2 K-factor sprinklers are available with ½ NPT thread size FOR REPLACEMENT ONLY.
- The maximum working pressure for high pressure sprinklers is 250 psi, unless otherwise indicated.
- Wax coatings are available on select standard response sprinklers up to and including 286°F. The standard finish is brass.
- Cover plates and escutcheons are sold separately. Sprinklers, escutcheons, and cover plates are available in custom colors at an additional charge. See pages F-8 and F-9 of Viking's list price book for details.
- Polyester and PTFE sprinklers are suitable for decorative applications and are UL Listed for corrosion resistance.
- For corrosion resistance, Viking also offers several sprinklers that are UL Listed and/or FM Approved with Electroless Nickel PTFE (ENT) plating.

Mirage® is a registered trademark of The Viking Corporation

Light and Ordinary Hazard

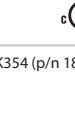

















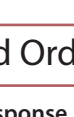





Quick Response

	Recessed Pendant	Domed Concealed Pendant	Flat Concealed Pendant	Upright	Horizontal Sidewall	Flat Concealed Horizontal Sidewall
5.6 K	VK302 (p/n 12979) Temp Range 135-286°F  GB  	VK302-D (p/n 12979BA-X) Temp Range 155-200°F  GB  	VK462 (p/n 13503A) Temp Range 155-200°F  GB  	VK300 (p/n 12978) Temp Range 135-286°F  GB  	VK305 (p/n 12997) Temp Range 135-286°F  GB  	VK481 (p/n 17555) Temp Range 165-220°F  FL 
8.0 K	VK352 (p/n 18258) Temp Range 135-286°F  GB  	VK352-D (p/n 18258A-X) Temp Range 155-200°F  GB  	VK464 (p/n 13614A) Temp Range 155-200°F  GB 	VK350 (p/n 18257) Temp Range 135-286°F  GB  	VK360 (p/n 15591) Temp Range 135-200°F  GB 	
11.2 K	VK377 (p/n 08337) Temp Range 155-286°F  GB  			VK531 (p/n 10633) Temp Range 155-286°F  GB  		

(NOTE) The above photos are for illustrative purposes only and might not exactly match the sprinkler indicated. Always refer to the technical documentation on Viking's web site for product dimensions and physical characteristics.

*FM Approved as Standard Response only.

Additional Quick Response Sprinklers

	Conventional	Flush Pendant	Stainless Steel Upright/Pendant	Mirage® Concealed (MRI Room Sprinkler)	Mirage® Concealed (high pressure)
5.6 K	VK310 (p/n 19391)  GB  ★	VK402 (p/n 06702B)  FL   VK478 (p/n 19995)  FL 	VK338 (p/n 14692)  GB   VK339 (p/n 14693)  GB 	VK462-MRI (p/n 15480A)  GB 	VK463 (p/n 13667A)  GB 
8.0 K	VK354 (p/n 18261)  GB ★			VK464-MRI (p/n 15481A)  GB	
	High Pressure Recessed Pendant	High Pressure Upright	High Pressure Horizontal Sidewall		
5.6 K	VK 317 (p/n 12282)  GB  ★	VK315 (p/n 12281)  GB  ★	VK319 (p/n 12285)  GB  ★		











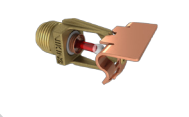




GB - Glass Bulb

FL - Fusible Link

★ - Also available in fusible link version.

Light and Ordinary Hazard









Standard Response

	Flat Plate Concealed	Flush Style	High Pressure Recessed Pendant	High Pressure Upright	High Pressure Horizontal Sidewall	Flat Concealed Horizontal Sidewall
5.6 K	VK492 (p/n 20034)  GB  	VK400 (p/n 06697B)  FL  	VK122 (p/n 09992)  GB 	VK124 (p/n 09993)  GB 	VK116 (p/n 09849)  GB 	VK481 (p/n 17555)  FL  

* Please refer to the "Light, Ordinary, and Extra Hazard" table on page 1 for additional sprinkler options.

Light Hazard Only




Quick Response

	Recessed Pendant	Flat Concealed Pendant	Upright	Horizontal Sidewall	Vertical Sidewall
2.8 K	VK329 (p/n 12981) Temp Range 135-286°F  GB	VK461 (p/n 13831A) Temp Range 155-200°F  GB	VK325 (p/n 12980) Temp Range 135-286°F  GB	VK333 (p/n 10035) Temp Range 135-286°F  GB	
4.2 K	VK331 (p/n 06720B) Temp Range 135-286°F  GB	VK465 (p/n 14262A) Temp Range 155-200°F  GB	VK327 (p/n 06719B) Temp Range 135-286°F  GB		
5.6 K	*	*	*	*	VK306 (p/n 12983) Temp Range 135-286°F  GB

* Please refer to the "Quick Response" table on the preceding page for additional sprinkler options.

(NOTE) The above photos are for illustrative purposes only and might not exactly match the sprinkler indicated. Always refer to the technical documentation on Viking's web site for product dimensions and physical characteristics.

Additional Quick Response Sprinklers

	High Pressure Recessed Pendant	High Pressure Upright	High Pressure Horizontal Sidewall
2.8 K	VK342 (p/n 12290)  GB	VK340 (p/n 12286)  GB	VK344 (p/n 12287)  GB

GB - Glass Bulb

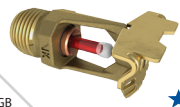

FL - Fusible Link

★ - Also available in fusible link version.

Light Hazard Only

Standard Response

Starting with the 1996 edition of NFPA 13, quick response type sprinklers are required to be used in all Light Hazard Occupancies, with exceptions for existing systems that have standard response sprinklers.

	Horizontal Sidewall	Vertical Sidewall
5.6 K	VK104 (p/n 12995) Temp Range 135-360°F  GB	VK106 (p/n 12996) Temp Range 135-286°F  GB

(NOTE) The above photos are for illustrative purposes only and might not exactly match the sprinkler indicated. Always refer to the technical documentation on Viking's web site for product dimensions and physical characteristics.

Cover Plates, Escutcheons, and Wrenches

Cover Plates and Escutcheons

Flat Cover Plate – Pendent

(VK461, VK462, VK463, VK464, VK465)

Standard diameter (2-3/4") – base part number 13504

Large diameter (3-1/4") – base part number 13642

Square cover plate – base part number 15394

Flat Cover Plate – Pendent (ELO)

(VK469, VK632 EC, VK538 EC)

Large diameter (3-1/4") – base part number 15765

Flat Cover Plate – Sidewall (VK481)

Base part number 16207

Domed Cover Plate

(VK102-D, VK202-D, VK302-D, VK352-D)

Base part number 12381

Escutcheons (recessed pendent sprinklers)

1/2" slip-on (2 piece) – base part number 06419A

3/4" slip-on (2 piece) – base part number 06420A

1/2" threaded (2 piece) – base part number 11038

3/4" threaded (2 piece) – base part number 11625

1/2" std flat escutcheon – base part number 02960A

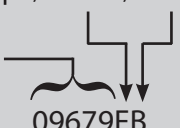


3/4" std flat escutcheon – base part number 05464A

Ceiling rings for VK400/VK402 flush pendants sold separately. See Viking list price book for details.

Select Sprinkler Wrenches

	Part #	21475M/B
	Use with all frame-style sprinklers and spray nozzles	
	Part #	13577W/B
	Use with domed concealed pendent, wax coated, and recessed pendent sprinklers with protective shields	
	Part #	13655W/B
	Use with recessed HSW sprinklers with protective shields and domed concealed HSW sprinklers	
Heavy Duty	Part #	14047W/B
	Part # 14031	
Light Duty		
	Use with Mirage® commercial concealed pendent sprinklers	

To order, add desired finish (f) and temperature (t) suffix to end of base part number.

Example 1 [base(f)(t)] VK330, Chrome, 155°F	Example 2 [base(f)(t)] VK360, White, 175°F	Example 3 [base(f)(t)] VK464, Brass, 200°F
		
09679FB	15591MD/W	13614AE

Temp Suffixes (t)		Finish Suffixes (f)	
135°F	A	Brass	A
155°F	B	Chrome	F
165°F	C	White-Poly	M-/W
175°F	D	Black Poly	M-/B
200°F / 205°F	E	Wax Coated	C
280°F / 286°F	G	Poly w/Wax	V-/W
360°F	H	ENT*	JN
500°F	L	*Electroless Nickel PTFE	
Open	Z		

Commercial Extended Coverage Sprinkler Quick Reference Guide

This guide is intended for general reference only. Prior to the design, layout, and/or installation of any sprinkler system, please refer to Viking's technical documentation and always consult with the AHJ. Viking makes no representation or warranty as to whether following this guide will satisfy any rule or requirement. Please visit www.vikinggroupinc.com for the most current technical data and product specifications. All products must be installed in accordance with the manufacturer's current installation instructions. Viking reserves the right to change product specifications at any time without notice and without incurring obligation.

The design data presented in this document is in accordance with each sprinkler's cULus listing. Design data for other approval agencies can be found on the product's technical datasheet.



Pendent and Recessed Pendent Sprinklers

5.6 (81) K-factor



VK600, Part No. 06778B Technical datasheet Sprinkler F_080988

- Listed to 175 psi (12 bar)
- 1/2" NPT (15mm)
- Light Hazard
- Standard Response - 155°F/68°C, 175°F/79°C
- Quick Response - 135°F/57°C, 155°F/68°C, 175°F/79°C
- Standard Wrench - 10896W/B,
Recessed Wrench - 13577W/B

Coverage Area ft (m)	Flow gpm (lpm)	Pressure psi (bar)
16 x 16 ¹ (4.9x4.9)	26 (98.4)	21.6 (1.49)
18 x 18 ¹ (5.5x5.5)	33 (124.9)	34.7 (2.39)
20 x 20 ^{2,3} (6.1x6.1)	40 (151.4)	51.0 (3.52)

¹ cULus listed for quick response only. FM approved for quick response.

² cULus quick response listing available in 135°F/57°C only. FM quick response listing includes 135°F/57°C, 155°F/68°C, and 175°F/79°C.

³ Standard response listing also available in 155°F/68°C and 175°F/79°C.

* See technical datasheet for expanded FM approval criteria.

5.6 (81) K-factor



VK604, Part No. 10335 Technical datasheet Sprinkler F_062314

- Listed at 175 psi (12 bar)
- VK610 (p/n 12294) Listed for high pressure; 250 psi (17.2 bar)
- 1/2" NPT (15mm)
- Light Hazard
- Standard Response - 155°F/68°C
- Quick Response - 135°F/57°C, 155°F/68°C, 175°F/79°C
- Standard Wrench - 10896W/B,
Recessed Wrench - 13577W/B

16 x 16 ¹ (4.9x4.9)	26 (98.4)	21.6 (1.49)
18 x 18 (5.5x5.5)	33 (124.9)	34.7 (2.40)
20 x 20 ² (6.1x6.1)	40 (151.4)	51.0 (3.52)

¹ Available only for quick response.

² Standard response listing also available in 175°F/79°C.

8.0 (115) K-factor



VK602, Part No. 18262 Technical datasheet Sprinkler F_102412

- Listed to 175 psi (12 bar)
- 3/4" NPT (20mm)
- Light Hazard
- Standard Response - 155°F/68°C, 175°F/79°C
- Quick Response - 135°F/57°C, 155°F/68°C, 175°F/79°C
- Standard Wrench - 10896W/B,
Recessed Wrench - 13577W/B

16 x 16 ¹ (4.9x4.9)	26 (98.4)	10.6 (0.73)
18 x 18 ¹ (5.5x5.5)	33 (124.9)	17.0 (1.17)
20 x 20 ² (6.1x6.1)	40 (151.4)	25.0 (1.72)

¹ cULus listed for quick response only. FM approved for quick response.

² cULus quick response listing available in 135°F/57°C only. FM quick response listing includes 135°F/57°C, 155°F/68°C, and 175°F/79°C.

* See technical datasheet for expanded FM approval criteria.

11.2 (161) K-factor



VK608, Part No. 08339 Technical datasheet Sprinkler F-052793

- Listed to 175 psi (12 bar)
- 3/4" NPT (20mm)
- Light Hazard
- Standard Response - 155°F/68°C
- Quick Response - 135°F/57°C, 155°F/68°C, 175°F/79°C
- Standard Wrench - 05118CW/B,
Recessed Wrench - 11663W/B
- Listed with concrete tees up to 30" (762mm) in depth

16 x 16 ¹ (4.9x4.9)	30 (113.6)	7.2 (0.50)
18 x 18 ¹ (5.5x5.5)	33 (124.9)	8.7 (0.60)
20 x 20 ² (6.1x6.1)	40 (151.4)	12.8 (0.88)

¹ Available only for quick response.

² cULus quick response listing in 135°F/57°C and 175°F/79°C only.

FM quick response listing also includes 155°F/68°C.

* See technical datasheet for expanded FM approval criteria.

Pendent and Recessed Pendent Sprinklers continued from page 1

11.2 (161) K-factor


VK534, Part No. 08340
Technical datasheet Sprinkler F_051393

- QR Listing for Light and Ordinary Hazard may allow for design area reduction.
- Listed to 175 psi (12 bar)
- 3/4" NPT (20mm)
- Light/Ordinary Hazard
- Standard Response - 155°F/68°C, 175°F/79°C, 200°F/93°C, 286°F/141°C
- Quick Response - 135°F/57°C, 155°F/68°C, 175°F/79°C, 200°F/93°C, 286°F/141°C
- Standard Wrench - 05118CW/B, Recessed Wrench - 11663W/B
- Listed with concrete tees up to 30" (762mm) in depth
- Available with ENT coating (Nickel PTFE) for corrosion resistance

Coverage Area ft (m)	Flow gpm (lpm)	Pressure psi (bar)
LIGHT HAZARD		
16 x 16 ¹ (4.9x4.9)	30 (113.6)	7.2 (0.50)
18 x 18 ¹ (5.5x5.5)	33 (124.9)	8.7 (0.60)
20 x 20 ¹ (6.1x6.1)	40 (151.4)	12.8 (0.88)
ORDINARY HAZARD*		
12 x 12 ¹ (3.7x3.7)	30 (113.6)	7.2 (0.50)
14 x 14 ¹ (4.3x4.3)	30 (113.6)	7.2 (0.50)
16 x 16 ² (4.9x4.9)	38 (143.9)	11.5 (0.79)
18 x 18 ² (5.5x5.5)	49 (185.5)	19.1 (1.32)
20 x 20 ² (6.1x6.1)	60 (227.1)	28.7 (1.98)

¹ Available only for quick response.² Available only for standard response.

* Design data listed above is for OH Group 1. See technical datasheet for OH Group 2 data.

14.0 (202) K-factor


VK572, Part No. 13722
Technical datasheet Sprinkler 83q F_072313

- QR Listing for Ordinary Hazard may allow for design area reduction
- Listed to 175 psi (12 bar)
- 3/4" NPT (20mm)
- Ordinary Hazard
- Standard/Quick Response - 155°F/68°C, 175°F/79°C, 200°F/93°C, 286°F/141°C
- Standard Wrench - 07297W/B, Recessed Wrench - 13032W/B
- FM Approved for HC1, HC2, and HC3 occupancies
- Listed with concrete tees up to 30" (762mm) in depth
- Available with ENT coating (Nickel PTFE) for corrosion resistance

ORDINARY HAZARD*		
12 x 12 ¹ (3.7x3.7)	39 (147.6)	7.8 (0.54)
14 x 14 ¹ (4.3x4.3)	39 (147.6)	7.8 (0.54)
16 x 16 ² (4.9x4.9)	39 (147.6)	7.8 (0.54)
18 x 18 ² (5.5x5.5)	49 (185.5)	12.3 (0.85)
20 x 20 ² (6.1x6.1)	60 (227.1)	18.4 (1.27)

¹ UL Listed only for quick response.² UL Listed only for standard response.

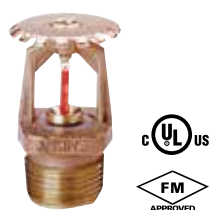
* See technical datasheet for FM approval criteria.

** Design data listed above is for OH Group 1. See technical datasheet for OH Group 2 data.

*** FM Approved as QR for all temps and spacings shown.

Upright Sprinkler

11.2 (161) K-factor


VK532, Part No. 08687
Technical datasheet Sprinkler F_053114

- QR Listing for Light and Ordinary Hazard may allow for design area reduction
- 3/4" NPT (20mm)
- Light/Ordinary Hazard
- Standard Response - 155°F/68°C, 175°F/79°C, 200°F/93°C, 286°F/141°C
- Quick Response - 135°F/57°C, 155°F/68°C, 175°F/79°C, 200°F/93°C, 286°F/141°C
- Standard Wrench - 05118CW/B
- FM approved for HC1, HC2, and HC3 occupancies
- Listed with concrete tees up to 30" (762mm) in depth
- Available with ENT coating (Nickel PTFE) for corrosion resistance

Coverage Area ft (m)	Flow gpm (lpm)	Pressure psi (bar)
LIGHT HAZARD		
16 x 16 ¹ (4.9x4.9)	30 (113.6)	7.2 (0.50)
18 x 18 ¹ (5.5x5.5)	33 (124.9)	8.7 (0.60)
20 x 20 ¹ (6.1x6.1)	40 (151.4)	12.8 (0.88)
ORDINARY HAZARD*		
12 x 12 ¹ (3.7x3.7)	30 (113.6)	7.2 (0.50)
14 x 14 ¹ (4.3x4.3)	30 (113.6)	7.2 (0.50)
16 x 16 ² (4.9x4.9)	38 (143.9)	11.5 (0.79)
18 x 18 ² (5.5x5.5)	49 (185.5)	19.1 (1.32)
20 x 20 ² (6.1x6.1)	60 (227.1)	28.7 (1.98)

¹ Available only for quick response.² Available only for standard response.

* See datasheet for FM approval criteria

** Design data listed above is for OH Group 1. See technical datasheet for Group 2 data.

14.0 (202) K-factor


VK570, Part No. 13840
Technical datasheet Sprinkler 83h F_010104

- QR Listing for Ordinary Hazard may allow for design area reduction
- Listed at 175 psi (12 bar)
- 3/4" NPT (20mm)
- Ordinary Hazard
- Standard/Quick Response - 155°F/68°C, 175°F/79°C, 200°F/93°C, 286°F/141°C
- Standard Wrench - 07297W/B
- Listed with concrete tees up to 30" (762mm) in depth
- Available with ENT coating (Nickel PTFE) for corrosion resistance

ORDINARY HAZARD*		
12 x 12 ¹ (3.7x3.7)	39 (147.6)	7.8 (0.54)
14 x 14 ¹ (4.3x4.3)	39 (147.6)	7.8 (0.54)
16 x 16 ² (4.9x4.9)	39 (147.6)	7.8 (0.54)
18 x 18 ² (5.5x5.5)	49 (185.5)	12.3 (0.85)
20 x 20 ² (6.1x6.1)	60 (227.1)	18.4 (1.27)

¹ Available only for quick response.² Available only for standard response.

* Design data listed above is for OH Group 1. See technical datasheet for Group 2 data.

Additional Design and Application Information

For systems designed to NFPA 13, water supplies are determined by applying the requirements from Chapter 11, Design Approaches (2013 Edition). Refer to sprinkler data pages on Viking's web site at www.vikinggroupinc.com for current technical data, design criteria, and listing/approval information. In some cases, Sprinkler Identification Numbers (SIN) may apply to more than one sprinkler. Please use part numbers when placing orders. NOTE: The $A_s = 5 \times L$ method must be used to determine the sprinkler protection area of coverage. (8.5.2.1)

Cover Plate Information

Flat covers are available in white, ivory, black, bright brass, brushed brass, antique brass, polished chrome, brushed chrome and brushed copper standard finishes. Domed covers are available in white, ivory, black and polished chrome. Flat covers are 3-5/16" (84mm) and 2-3/4" (69.8mm) in diameter and the domed covers are 3-1/8" (80mm) in diameter. Square cover plates measure (LxW) 3-5/16" (84mm).

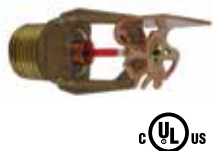
Special Painted Cover Plates

In addition to standard finishes, cover plates can be special ordered in over 800 custom colors. Additional charges will apply. Orders covering special painted products are not subject to cancellation except by written permission and then only upon agreement to make payment for work already performed. Viking reserves the right to over ship special painted products produced in excess of order quantity at no charge. No return of these products is allowed.

Horizontal Sidewall Sprinklers

Standard Response available in 155°F/68°C; Quick Response available in 135°F/57°C, 155°F/68°C and 175°F/79°C

5.6 (81) K-factor



VK605, Part No. 12120 Technical datasheet Sprinkler F_072414

- 1/2" NPT (15mm)
- Light Hazard, Standard/Quick Response
- 6-12" (152-305mm) deflector distance to ceiling for horizontal ceilings. 4-6" (102-152mm) for ceilings up to 4/12 (18.4°) pitch
- Standard Wrench - 10896W/B, Recessed Wrench - 1365W/B
- Listed for high pressure; 250 psi (17.2 bar) as VK612 (p/n 12295)

Coverage Area ft (m)	Flow gpm (lpm)	Pressure psi (bar)
16 x 16 ¹ (4.9x4.9)	26 (98.4)	21.6 (1.49)
16 x 18 ¹ (4.9x5.5)	29 (109.8)	26.8 (1.85)
16 x 20 ¹ (4.9x6.2)	32 (121.1)	32.7 (2.25)

¹ Also available for sloped ceilings up to 4/12 (18°) pitch with same flows and pressures, installed 4-6" below ceiling.

8.0 (115) K-factor



VK606, Part No. 18271 Technical datasheet Sprinkler F_102612

- 3/4" NPT (20mm)
- Light Hazard, Quick Response
- Approved for 4-12" (102-305mm) down from ceiling
- Standard Wrench - 10896W/B, Recessed Wrench - 13655W/B
- FM approved up to 16 x 24 (4.9 x 7.3)

16 x 16 (4.9x4.9)	26 (98.4)	10.6 (0.73)
16 x 18 (4.9x5.5)	29 (109.8)	13.1 (0.91)
16 x 20 (4.9x6.2)	32 (121.1)	16.0 (1.10)
16 x 22 ¹ (4.9x6.7)	36 (136.3)	20.3 (1.40)
16 x 22 ² (4.9x6.7)	38 (143.8)	22.6 (1.56)

¹ 4-6" (102-152mm) down from ceiling.

² 6-12" (152-305mm) down from ceiling.

* Flows and pressures listed above are based on UL Listings only.

See technical datasheet for FM approval criteria.

8.0 (115) K-factor



VK630, Part No. 13500 Technical datasheet Sprinkler F_102905

- 3/4" NPT (20mm)
- Light Hazard, Quick Response
- Approved for 4-12" (102-305mm) down from ceiling
- Standard Wrench - 10896W/B, Recessed Wrench - 13655W/B
- Also available in a domed concealed (model p/n 13500A-X)
- Available with ENT coating (Nickel PTFE) for corrosion resistance

14 x 24 ¹ (4.3x7.3)	34 (128.7)	18.1 (1.25)
14 x 24 ² (4.3x7.3)	36 (136.3)	20.3 (1.40)
14 x 26 ¹ (4.3x7.9)	38 (144.0)	22.6 (1.56)
14 x 26 ² (4.3x7.9)	46 (174.1)	33.1 (2.28)
16 x 16 (4.9x4.9)	26 (98.4)	10.6 (0.73)
16 x 18 (4.9x5.5)	29 (109.8)	13.1 (0.91)
16 x 20 (4.9x6.2)	32 (121.1)	16.0 (1.10)
16 x 22 (4.9x6.7)	36 (136.3)	20.3 (1.40)
16 x 24 (4.9x7.3)	39 (147.6)	23.8 (1.64)
18 x 18 (5.5x5.5)	33 (124.9)	17.0 (1.17)
18 x 20 (5.5x6.2)	36 (136.3)	20.3 (1.40)
18 x 22 (5.5x6.7)	40 (151.4)	25.0 (1.72)

¹ 4-6" (102-152mm) down from ceiling.

² 6-12" (152-305mm) down from ceiling.

* Flows and pressures listed above are based on UL Listings only.

See datasheet for FM approval criteria.

8.0 (115) K-factor



VK638, Part No. 17375 (Corridor Sprinkler) Technical datasheet Sprinkler F_081911

- 3/4" NPT (20mm)
- Light Hazard, Quick Response
- Standard Wrench - 10896W/B, Recessed Wrench - 13655W/B
- Well suited for hallways, corridors, breeze ways, and other applications requiring a wide spray pattern
- Also available in a domed concealed model (p/n 17375A-X)

28 x 12 ¹ (8.5x3.7)	34 (128.7)	18.1 (1.24)
28 x 14 ¹ (8.5x4.3)	40 (151.4)	25.0 (1.73)

¹ 4-12" (102-305mm) down from ceiling.

Flat Plate Concealed Horizontal Sidewall Sprinkler

Cover Plate 3-5/16" (84mm) diameter; Adjustment up to 1/4" (6mm)

8.0 (115) K-factor



VK680, Part No. 17114AC Technical datasheet Sprinkler F_050611

- 3/4" NPT (20mm)
- Light Hazard, Quick Response
- Listed for installation 4-3/8 to 12-3/8" (112-314mm) down from ceiling (measured to the center line of sprinkler)
- Wrench - 16208W/R
- Sprinkler 165°F/74°C; Cover 135°F/57°C
- Use cover plate 16207 (sold separately)

Coverage Area ft (m)	Flow gpm (lpm)	Pressure psi (bar)
14 x 22 (4.3x6.7)	31 (117.3)	15.0 (1.04)
14 x 24 ¹ (4.3 x 7.3)	34 (128.7)	18.1 (1.25)
14 x 24 ² (4.3 x 7.3)	35 (132.5)	19.2 (1.32)
16 x 16 (4.9x4.9)	26 (98.4)	10.6 (0.73)
16 x 18 (4.9x5.5)	29 (109.8)	13.1 (0.91)
16 x 20 (4.9x6.2)	32 (121.1)	16.0 (1.10)
16 x 22 (4.9x6.7)	36 (136.3)	20.3 (1.40)
16 x 24 ¹ (4.9 x 7.3)	39 (147.6)	23.8 (1.64)
16 x 24 ² (4.9 x 7.3)	40 (151.4)	25 (1.72)
18 x 18 (5.5x5.5)	33 (124.9)	17.0 (1.20)
18 x 20 (5.5x6.2)	36 (136.3)	20.3 (1.40)
18 x 22 (5.5x6.7)	40 (151.4)	25.0 (1.72)

¹ 4-3/8" (112mm) - 6-3/8" (162mm) down from ceiling.

² 6-3/8" (162mm) - 12-3/8" (314mm) down from ceiling.

Mirage® Flat Plate Concealed Pendent Sprinklers

5.6 (81) K-factor



VK632, Part No. 14613A
Technical datasheet Sprinkler 92a F_080107

- 1/2" NPT (15mm)
- Light Hazard
- Wrench: Heavy Duty (14047W/B); Light Duty (14031)
- Quick Response - Sprinkler 135°F/57°C, 155°F/68°C, 175°F/79°C, 200°F/93°C; Cover 135°F/57°C, 165°F/74°C

Coverage Area ft (m)	Flow gpm (lpm)	Pressure psi (bar)
16 x 16 (4.9x4.9)	26 (98.4)	21.6 (1.49)
18 x 18 (5.5x5.5)	33 (124.9)	34.7 (2.39)
20 x 20 ¹ (6.1x6.1)	40 (151.4)	51.0 (3.52)

¹ Available only for 135°F/57°C and 175°F/79°C.

8.0 (115) K-factor



VK634, Part No. 14535A
Technical datasheet Sprinkler 92a F_080107

- 3/4" NPT (20mm)
- Light Hazard
- Wrench: Heavy Duty (14047W/B); Light Duty (14031)
- Quick Response - Sprinkler 135°F/57°C, 155°F/68°C, 175°F/79°C, 200°F/93°C; Cover 135°F/57°C, 165°F/74°C

16 x 16 (4.9x4.9)	26 (98.4)	10.6 (0.73)
18 x 18 (5.5x5.5)	33 (124.9)	17.0 (1.17)
20 x 20 ¹ (6.1x6.1)	40 (151.4)	25.0 (1.72)

¹ Available only for 135°F/57°C and 175°F/79°C.

11.2 (161) K-factor



VK636, Part No. 16102A
Technical datasheet Sprinkler 89a F_121009

- 3/4" NPT (20mm)
- Light Hazard
- Wrench: Heavy Duty (15467W/B); Light Duty (15466)
- Quick Response - Sprinkler 165°F/74°C, 205°F/96°C; Cover 135°F/57°C, 165°F/74°C
- Use ELO cover plate 15765_ (3-5/16" diameter)

16 x 16 (4.9x4.9)	30 (113.6)	7.2 (0.50)
18 x 18 (5.5x5.5)	33 (124.9)	8.7 (0.60)
20 x 20 (6.1x6.1)	40 (151.4)	12.8 (0.88)

11.2 (161) K-factor



VK538, Part No. 17115A
Technical datasheet Sprinkler 89h F_050511

- 3/4" NPT (20mm)
- Ordinary Hazard
- QR Listing for Ordinary Hazard may allow for design area reduction
- Wrench: Heavy Duty (15467W/B); Light Duty (15466)
- Quick Response - Sprinkler 165°F/74°C, 205°F/96°C; Cover 135°F/57°C, 165°F/74°C
- Use ELO cover plate 15765_ (3-5/16" diameter)

ORDINARY HAZARD*		
14 x 14 (4.3x4.3)	30 (113.6)	7.2 (0.50)
16 x 16 (4.9 x 4.9)	38 (143.9)	11.5 (0.79)
18 x 18 (5.5x5.5)	49 (185.5)	19.1 (1.32)
20 x 20 ¹ (6.1x6.1)	60 (227.1)	28.7 (1.98)

¹ Also listed as standard response.

* Design data listed above is for OH Group 1. See technical datasheet for Group 2 data.

Note: Base part numbers for cover plates are 13504 for standard diameter, 13642 for large diameter, 15394 for square, and 15765 for ELO. (Sold Separately)

When ordering, please add appropriate finish and temperature suffix (135°F/57°C = "A"; 165°F/74°C = "C") to base part number. Refer to Viking's list price book for ordering details.

Domed Concealed Pendent Sprinklers

5.6 (81) K-factor



VK614-D, Part No. 06778BA-X
Technical datasheet Sprinkler 88a F_061603

- 1/2" NPT (15mm)
- Light Hazard
- Standard Wrench - 13577W/B
- Standard Response - Sprinkler 155°F/68°C; Cover 135°F/57°C
- Quick Response - Sprinkler 135°F/57°C, 155°F/68°C, 175°F/79°C; Cover 135°F/57°C, 165°F/74°C

Coverage Area ft (m)	Flow gpm (lpm)	Pressure psi (bar)
16 x 16 ¹ (4.9x4.9)	26 (98.4)	21.6 (1.49)
18 x 18 (5.5x5.5)	33 (124.9)	34.7 (2.39)
20 x 20 (6.1x6.1)	40 (151.4)	51.0 (3.52)

¹ Available only for quick response.

8.0 (115) K-factor



VK616-D, Part No. 07077A-X
Technical datasheet Sprinkler 88a F_061603

- 3/4" NPT (20mm)
- Light Hazard
- Standard Wrench - 13577W/B
- Standard Response - Sprinkler 155°F/68°C; Cover 135°F/57°C
- Quick Response - Sprinkler 135°F/57°C, 155°F/68°C, 175°F/79°C; Cover 135°F/57°C, 165°F/74°C

16 x 16 ¹ (4.9x4.9)	26 (98.4)	10.6 (0.73)
18 x 18 (5.5x5.5)	33 (124.9)	17.0 (1.17)
20 x 20 (6.1x6.1)	40 (151.4)	25.0 (1.72)

¹ Available only for quick response.

11.2 (161) K-factor



VK618-D, Part No. 08339A-X
Technical datasheet Sprinkler 86a F_061503

- 3/4" NPT (20mm)
- Light Hazard
- Standard Wrench - 11663W/B
- Standard Response - Sprinkler 155°F/68°C; Cover 135°F/57°C
- Quick Response - Sprinkler 135°F/57°C, 155°F/68°C, 175°F/79°C; Cover 135°F/57°C, 165°F/74°C

16 x 16 ¹ (4.9x4.9)	30 (113.6)	7.2 (0.50)
18 x 18 (5.5x5.5)	33 (124.9)	8.7 (0.60)
20 x 20 (6.1x6.1)	40 (151.4)	12.8 (0.88)

¹ Available only for quick response.

Note: Base part number for cover plates is 12381. (Sold Separately)

When ordering, please add appropriate finish and temperature suffix (135°F/57°C = "A"; 165°F/74°C = "C") to base part number. Refer to Viking's list price book for ordering details.

Storage Sprinkler U.S. Quick Reference Guide

This guide is intended for general reference only. Prior to the design, layout, and/or installation of any sprinkler system, please refer to Viking's technical documentation and always consult with the AHJ. Viking makes no representation or warranty as to whether following this guide will satisfy any rule or requirement. Please visit www.vikinggroupinc.com for the most current technical data and product specifications. All products must be installed in accordance with the manufacturer's current installation instructions. Viking reserves the right to change product specifications at any time without notice and without incurring obligation.



Early Suppression Fast Response (ESFR) Sprinklers

14.0 (202) K-factor



VK520, ESFR Upright

Base Part Number:	10625
Technical Datasheet:	F_060298
NPT Thread:	3/4 in

- Protects up to 35 ft (10,7 m) high buildings without using in-rack sprinklers
- Upright design provides more options for designing around obstructions
- Install directly onto system piping up to 3 in (75 mm) diameter pipe
- Easy to retrofit into existing upright sprinkler systems
- Can be installed on same branch line as K14 ESFR pendent sprinklers

NFPA 13 - Required Minimum Flow (GPM) - Single-Row, Double-Row, and Multi-Row Rack Storage (without solid shelves)¹

ceiling height (ft) >	45'					40'					35'			32'	30'		25'
storage height (ft) >	40'	35'	30'	25'	20'	35'	30'	25'	20'	30'	25'	20'	25'	25'	20'	20'	
Class I-IV Commodity										1455	1455	1455	1302	1188	1188	1188	
Cartoned Nonexpanded Plastic										1455	1455	1455	1302	1188	1188	1188	
Cartoned Expanded Plastic														1188	1188	1188	

¹ Required flow per sprinkler calculated using $Q=K(\sqrt{p})$ multiplied by number of design sprinklers (12)

14.0 (202) K-factor



VK500, ESFR Pendent

Base Part Number:	10284
Technical Datasheet:	F_060198
NPT Thread:	3/4 in

- Protects up to 35 ft (10,7 m) high buildings without using in-rack sprinklers
- Sprinklers may be spaced up to 12 ft (3,7 m) for buildings up to 30 ft (9,1 m)
- Coverage area per sprinkler may not exceed 100 ft² (9,3 m²)
- Available in 165° F and 205° F temperature ratings

NFPA 13 - Required Minimum Flow (GPM) - Single-Row, Double-Row, and Multi-Row Rack Storage (without solid shelves)¹

ceiling height (ft) >	45'					40'					35'			32'	30'		25'
storage height (ft) >	40'	35'	30'	25'	20'	35'	30'	25'	20'	30'	25'	20'	25'	25'	20'	20'	
Class I-IV Commodity										1455	1455	1455	1302	1188	1188	1188	
Cartoned Nonexpanded Plastic										1455	1455	1455	1302	1188	1188	1188	
Cartoned Expanded Plastic													1302	1188	1188	1188	
Exposed Nonexpanded Plastic										1455	1455	1455	1302	1188	1188	1188	

¹ Required flow per sprinkler calculated using $Q=K(\sqrt{p})$ multiplied by number of design sprinklers (12)

14.0 (202) K-factor



VK502, ESFR Dry Pendent

Threaded Part Number:*	18177
Grooved Part Number:*	18176
Technical Datasheet:	F_042012
NPT Thread:	1-1/2 in
Grooved:	2 in

- Protects up to 35 ft (10,7 m) high buildings without using in-rack sprinklers
- INSTALL ON WET SYSTEMS ONLY (not approved for dry/preaction systems)
- Uses same design criteria as standard 14.0 (202) K-factor ESFR pendent
- Includes two dry sprinkler insulation boots (p/n 19330M/W)
- Offered with either a threaded or grooved connection
- Available in 165° F temperature rating

NFPA 13 - Required Minimum Flow (GPM) - Single-Row, Double-Row, and Multi-Row Rack Storage (without solid shelves)¹

ceiling height (ft) >	45'					40'					35'			32'	30'		25'
storage height (ft) >	40'	35'	30'	25'	20'	35'	30'	25'	20'	30'	25'	20'	25'	25'	20'	20'	
Class I-IV Commodity										1455	1455	1455	1302	1188	1188	1188	
Cartoned Nonexpanded Plastic										1455	1455	1455	1302	1188	1188	1188	
Cartoned Expanded Plastic													1302	1188	1188	1188	
Exposed Nonexpanded Plastic										1455	1455	1455	1302	1188	1188	1188	

*Standard length is 36-5/8". Also available in lengths of 18-5/8", 24-5/8", and 30-5/8". Refer to Viking's List Price Book for ordering information.

¹ Required flow per sprinkler calculated using $Q=K(\sqrt{p})$ multiplied by number of design sprinklers (12)

ESFR Sprinklers continued from Page 1

Early Suppression Fast Response (ESFR) Sprinklers

Viking ESFR sprinklers with K-factor of 16.8 and greater successfully meet the new UL 1767 test standard and compliance program for high clearance storage arrangements.

16.8 (242) K-factor



VK503, ESFR Pendent

Base Part Number:	14073
Technical Datasheet:	F_120106
NPT Thread:	3/4 in

- Protects up to 35 ft (10,7 m) high piled storage without using in-rack sprinklers in buildings with 40 ft (12,2 m) high ceilings
- Requires lower starting pressures than VK500 K14 (202) ESFR pendent
- Approved for up to 45 ft (13,7 m) ceilings with one row of in-rack sprinklers
- Available in 165° F and 205° F temperature ratings

NFPA 13 - Required Minimum Flow (GPM) - Single-Row, Double-Row, and Multi-Row Rack Storage (without solid shelves) ¹																
ceiling height (ft) >	45'					40'				35'			32'	30'		25'
storage height (ft) >	40'	35'	30'	25'	20'	35'	30'	25'	20'	30'	25'	20'	25'	20'	20'	20'
Class I-IV Commodity	1600	1600	1600	1600	1600	1454	1454	1454	1454	1454	1454	1454	1307	1193	1193	1193
Cartoned Nonexpanded Plastic	1600	1600	1600	1600	1600	1454	1454	1454	1454	1454	1454	1454	1307	1193	1193	1193
Cartoned Expanded Plastic													1307	1193	1193	1193
Exposed Nonexpanded Plastic	1600	1600	1600	1600	1600	1454	1454	1454	1454	1454	1454	1454	1307	1193	1193	1193

¹ Required flow per sprinkler calculated using $Q=K^*(\sqrt{p})$ multiplied by number of design sprinklers (12)² Requires one row of in-rack sprinklers

16.8 (242) K-factor



VK504, ESFR Dry Pendent

Threaded Part Number:*	19016
Grooved Part Number:*	19015
Technical Datasheet:	F_062613
NPT Thread/Grooved:	1-1/2 in

- Protects up to 35 ft (10,7 m) high piled storage without using in-rack sprinklers in buildings with 40 ft (12,2 m) high ceilings
- Available in 165° F and 205° F temperature ratings
- Includes two dry sprinkler insulation boots (p/n 19330M/W)
- INSTALL ON WET SYSTEMS ONLY (not approved for dry/preaction systems)

NFPA 13 - Required Minimum Flow (GPM) - Single-Row, Double-Row, and Multi-Row Rack Storage (without solid shelves) ¹																
ceiling height (ft) >	45'					40'				35'			32'	30'		25'
storage height (ft) >	40'	35'	30'	25'	20'	35'	30'	25'	20'	30'	25'	20'	25'	20'	20'	20'
Class I-IV Commodity						1454	1454	1454	1454	1454	1454	1454	1307	1193	1193	1193
Cartoned Nonexpanded Plastic						1454	1454	1454	1454	1454	1454	1454	1307	1193	1193	1193
Cartoned Expanded Plastic													1307	1193	1193	1193
Exposed Nonexpanded Plastic						1454	1454	1454	1454	1454	1454	1454	1307	1193	1193	1193

*Standard length is 36-1/2". Also available in lengths of 18-1/2", 24-1/2", and 30-1/2". Refer to Viking's List Price Book for ordering information.

¹ Required flow per sprinkler calculated using $Q=K^*(\sqrt{p})$ multiplied by number of design sprinklers (12)

22.4 (320) K-factor



VK506, ESFR Pendent

Base Part Number:	18493
Technical Datasheet:	F_081612
NPT Thread:	1 in

- Protects up to 40 ft (12,2m) high piled storage without using in-rack sprinklers with ceilings up to 45 ft (13,7 m)
- May reduce or eliminate the need for a fire pump
- Available in 165° F and 205° F temperature ratings

NFPA 13 - Required Minimum Flow (GPM) - Single-Row, Double-Row, and Multi-Row Rack Storage (without solid shelves) ¹																
ceiling height (ft) >	45'					40'				35'			30'		25'	
storage height (ft) >	40'	35'	30'	25'	20'	35'	30'	25'	20'	30'	25'	20'	25'	20'	20'	20'
Class I-IV Commodity	1701	1701	1701	1701	1701	1701	1701	1701	1701	1591	1591	1591	1344	1344	1344	1344
Cartoned Nonexpanded Plastic	1701	1701	1701	1701	1701		1701	1701	1701	1591	1591	1591	1344	1344	1344	1344
Exposed Nonexpanded Plastic						1901	1901	1901	1701	1591	1591	1591	1344	1344	1344	1344

¹ Required flow per sprinkler calculated using $Q=K^*(\sqrt{p})$ multiplied by number of design sprinklers (12)

25.2 (363) K-factor



VK510, ESFR Pendent

Base Part Number:	12080
Technical Datasheet:	F_100102
NPT Thread:	1 in

- Protects up to 45 ft (13,7 m) high buildings without using in-rack sprinklers
- May reduce or eliminate the need for a fire pump
- cULus Listed with deflector installed 6-18 in (102-330 mm) below ceiling for Ceiling heights up to 40 feet (6-14 in down for up to 45 ft ceiling heights)
- Available in 165°F and 205°F temperature ratings

NFPA 13 - Required Minimum Flow (GPM) - Single-Row, Double-Row, and Multi-Row Rack Storage (without solid shelves) ¹																
ceiling height (ft) >	45'					40'				35'			30'		25'	
storage height (ft) >	40'	35'	30'	25'	20'	35'	30'	25'	20'	30'	25'	20'	25'	20'	20'	20'
Class I-IV Commodity	1913	1913	1913	1913	1913	1512	1512	1512	1512	1352	1352	1352	1171	1171	1171	1171
Cartoned Nonexpanded Plastic	1913	1913	1913	1913	1913	1512	1512	1512	1512	1352	1352	1352	1171	1171	1171	1171
Exposed Nonexpanded Plastic						2139	2139	2139								

¹ Required flow per sprinkler calculated using $Q=K^*(\sqrt{p})$ multiplied by number of design sprinklers (12)

ESFR Sprinklers continued from Page 2

Early Suppression Fast Response (ESFR) Sprinklers

Viking ESFR sprinklers with K-factor of 16.8 and greater successfully meet the new UL 1767 test standard and compliance program for high clearance storage arrangements.

28.0 (404) K-factor



VK514, ESFR Pendent

Base Part Number:	19591
Technical Datasheet:	F_010715
NPT Thread:	1 in

- Protects up to 43 ft (13,1 m) high piled storage without using in-rack sprinklers in buildings with 48 ft (14,6 m) high ceilings
- UL Listed for aisle width as narrow as 6 ft (1,8 m)
- Available in 165° F and 205° F temperature ranges
- May reduce or eliminate the need for a fire pump

NFPA 13 - Required Minimum Flow (GPM) - Single-Row and Double-Row Rack Storage (without solid shelves)¹

ceiling height (ft) >	48'						45'					40'				35'			30'		25'
storage height (ft) >	43'	40'	35'	30'	25'	20'	40'	35'	30'	25'	20'	35'	30'	25'	20'	30'	25'	20'	25'	20'	20'
Class I-IV Commodity	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992
Cartoned Nonexpanded Plastic	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992

¹ Required flow per sprinkler calculated using $Q=K(\sqrt{p})$ multiplied by number of design sprinklers (12)

Control Mode Specific Application (CMSA) Sprinklers

11.2 (161) K-factor



VK540, Large Drop, CMSA Upright

Base Part Number:	13167
Technical Datasheet:	F_090595
Response Type:	Standard
NPT Thread:	3/4 in

- Available in 155° F, 200° F, and 286° F temperature ratings
- Provides protection from severe challenge fires by creating larger water drops that penetrate the fire plume and cool the storage commodity
- Approved for storage of class I-IV commodities, heavyweight rolled paper, and expanded and nonexpanded plastics (cartoned and exposed)
- VK540 is approved for wet, dry, and preaction systems
- Eliminates the need for in-rack sprinklers in certain storage scenarios

NFPA 13 - Required Minimum Flow (GPM) - Single-Row, Double-Row, and Multi-Row Rack Storage (without solid shelves)¹

ceiling height (ft) >	45'					40'				35'			30'		25'
storage height (ft) >	40'	35'	30'	25'	20'	35'	30'	25'	20'	30'	25'	20'	25'	20'	20'
Class I-II Commodity						2990 ²				1120	840		1120	840	
Class III Commodity										840			840	840	
Class IV Commodity										1455			1188	1455	1188
Cartoned Nonexpanded Plastic										1940			1188	1940	1188
Exposed Plastic										1940			1188	1940	1188

¹ Required flow per sprinkler calculated using $Q=K(\sqrt{p})$ multiplied by number of design sprinklers (Refer to NFPA 13)

² Requires one row of in-rack sprinklers

³ Dry systems only

⁴ Flows based upon wet systems.

19.6 (283) K-factor



VK592, CMSA Pendent

Base Part Number:	14243A
Technical Datasheet:	F_033108
Response Type:	Standard
NPT Thread:	1 in

- Available in 160° F and 205° F temperature ratings
- Protects up to 40 ft (12,2 m) high buildings without using in-rack sprinklers
- Requires lower overall water usage than ESFRs and other CMSA products
- Overcomes many obstruction challenges that impact ESFR sprinklers
- 12 ft (3,7 m) spacing between sprinklers provides enhanced design flexibility
- Listed and Approved for warehouses with aisles as narrow as 4 ft (1,2 m)
- UL Listed for concrete tee construction (prohibited for ESFR sprinklers)

NFPA 13 - Required Minimum Flow (GPM) - Single-Row, Double-Row, and Multi-Row Rack Storage (without solid shelves)¹

ceiling height (ft) >	45'					40'				35'			30'		25'
storage height (ft) >	40'	35'	30'	25'	20'	35'	30'	25'	20'	30'	25'	20'	25'	20'	20'
Class I-IV Commodity						1610	1610	1610	1610	1470	1470	1470	1176	1176	1176
Cartoned Nonexpanded Plastic						1610	1610	1610	1610	1470	1470	1470	1176	1176	1176

* Unless otherwise indicated, the above data is based on FM approval guidelines

¹ Required flow per sprinkler calculated using $Q=K(\sqrt{p})$ multiplied by number of design sprinklers (see data page)

² 40 ft ceiling height is UL listed only. FM approved for up to 35 ft ceiling height (30 ft of storage)

³ Based on UL listed design criteria. VK592 is not FM approved at 40' ceiling heights.

Control Mode Density Area (CMDA) Sprinklers

11.2 (161) K-factor

VK530, Standard Response ELO Upright



Base Part Number:	09679
Technical Datasheet:	F_010692
Response:	Standard
Element:	Glass Bulb
NPT Thread:	3/4 in

Example Density	Std CMDA Spk Spacing	(Q) Flow Rate / Sprinkler	(P) Starting Pressure	Example Water Demand (2,000 ft² design area)
0.3 gpm/ft²	100 ft²	30 gpm	7.2 psi	600 gpm
0.4 gpm/ft²	100 ft²	40 gpm	12.8 psi	800 gpm
0.5 gpm/ft²	100 ft²	50 gpm	19.9 psi	1,000 gpm
0.6 gpm/ft²	100 ft²	60 gpm	28.7 psi	1,200 gpm
0.7 gpm/ft²	100 ft²	70 gpm	39.1 psi	1,400 gpm
0.8 gpm/ft²	100 ft²	80 gpm	51.0 psi	1,600 gpm

11.2 (161) K-factor

VK531, Quick Response ELO Upright



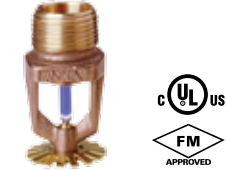
Base Part Number:	10633
Technical Datasheet:	F_120699
Response:	Quick
Element:	Glass Bulb¹
NPT Thread:	3/4 in

¹Also available with fusible link (VK533-p/n 13978)
- UL Listed ONLY

Example Density	Std CMDA Spk Spacing	(Q) Flow Rate / Sprinkler	(P) Starting Pressure	Example Water Demand (2,000 ft² design area)
0.3 gpm/ft²	100 ft²	30 gpm	7.2 psi	600 gpm
0.4 gpm/ft²	100 ft²	40 gpm	12.8 psi	800 gpm
0.5 gpm/ft²	100 ft²	50 gpm	19.9 psi	1,000 gpm
0.6 gpm/ft²	100 ft²	60 gpm	28.7 psi	1,200 gpm
0.7 gpm/ft²	100 ft²	70 gpm	39.1 psi	1,400 gpm
0.8 gpm/ft²	100 ft²	80 gpm	51.0 psi	1,600 gpm

11.2 (161) K-factor

VK536, Standard Response ELO Pendent



Base Part Number:	07961
Technical Datasheet:	F_072213
Response:	Standard
Element:	Glass Bulb
NPT Thread:	3/4 in

Example Density	Std CMDA Spk Spacing	(Q) Flow Rate / Sprinkler	(P) Starting Pressure	Example Water Demand (2,000 ft² design area)
0.3 gpm/ft²	100 ft²	30 gpm	7.2 psi	600 gpm
0.4 gpm/ft²	100 ft²	40 gpm	12.8 psi	800 gpm
0.5 gpm/ft²	100 ft²	50 gpm	19.9 psi	1,000 gpm
0.6 gpm/ft²	100 ft²	60 gpm	28.7 psi	1,200 gpm
0.7 gpm/ft²	100 ft²	70 gpm	39.1 psi	1,400 gpm
0.8 gpm/ft²	100 ft²	80 gpm	51.0 psi	1,600 gpm

11.2 (161) K-factor

VK377, Quick Response ELO Pendent



Base Part Number:	08337
Technical Datasheet:	F_030993
Response:	Quick
Element:	Glass Bulb
NPT Thread:	3/4 in

Example Density	Std CMDA Spk Spacing	(Q) Flow Rate / Sprinkler	(P) Starting Pressure	Example Water Demand (2,000 ft² design area)
0.3 gpm/ft²	100 ft²	30 gpm	7.2 psi	600 gpm
0.4 gpm/ft²	100 ft²	40 gpm	12.8 psi	800 gpm
0.5 gpm/ft²	100 ft²	50 gpm	19.9 psi	1,000 gpm
0.6 gpm/ft²	100 ft²	60 gpm	28.7 psi	1,200 gpm
0.7 gpm/ft²	100 ft²	70 gpm	39.1 psi	1,400 gpm
0.8 gpm/ft²	100 ft²	80 gpm	51.0 psi	1,600 gpm

Control Mode Density Area (CMDA) Sprinklers

16.8 (242) K-factor

VK580, Standard Response CMDA Upright



Base Part Number:	12739A
Technical Datasheet:	F_041904
Response:	Standard
Element:	Glass Bulb
NPT Thread:	3/4 in

Example Density	Std CMDA Spk Spacing	(Q) Flow Rate / Sprinkler	(P) Starting Pressure	Example Water Demand (2,000 ft² design area)
0.45 gpm/ft²	100 ft²	45 gpm	7.2 psi	900 gpm
0.5 gpm/ft²	100 ft²	50 gpm	8.9 psi	1,000 gpm
0.6 gpm/ft²	100 ft²	60 gpm	12.8 psi	1,200 gpm
0.7 gpm/ft²	100 ft²	70 gpm	17.4 psi	1,400 gpm
0.8 gpm/ft²	100 ft²	80 gpm	22.7 psi	1,600 gpm

25.2 (363) K-factor

VK598, Standard Response CMDA Upright



Base Part Number:	19522A
Technical Datasheet:	F_090414
Response:	Standard
Element:	Glass Bulb
NPT Thread:	1 in

- FM Approved Only - Design and install per FM Global Loss Prevention Data Sheet 8-9 (July 2015) only
- FM Approved for use in dry or preaction systems to protect Class I-III commodities with storage heights of up to 40 ft (12,2 m) in warehouses as high as 45 ft (13,7 m), without the need for additional in-rack sprinkler protection
- VK598 design criteria requires specific water delivery times, as indicated on the product's technical data sheet. Viking's Technical Services team will assist customers with performing the required fluid delivery calculations
- In FM storage designs, the VK598 can be used to protect any commodity hazard that can be protected by the K11.2 (K160) upright CMSA sprinkler, Model VK540- refer to Viking technical data for required pressures when using VK598

FM Global Loss Prevention Data Sheet 8-9 (July 2015) - Required Minimum Flow (GPM) - Open Frame Rack Storage (without need for in-rack sprinklers)

ceiling height (ft) >	45'					40'				35'			30'		25'
storage height (ft) >	40'	35'	30'	25'	20'	35'	30'	25'	20'	30'	25'	20'	25'	20'	20'
Dry/Precision															
Class I-III Commodity	2140	2140	2140	2140	2140	2342	2342	2342	2342	2342	2342	2342	1992	1992	1333
Wet System															
Class I-IV Commodity													1352	1352	1352

Intermediate Level Sprinklers (In-Rack)

Preassembled with Water Shield

5.6 (81) K-factor

**VK550
SR Upright**

Base Part Number:	12986—U
Technical Datasheet:	F_012498
Response:	Standard
NPT Thread:	1/2 in
Finish:	Std. Brass



- Also available with fusible link (VK552-p/n 05557—U)
- Shield protects sprinkler from water discharge above
- Use where sprinkler guards are not required

Preassembled with Water Shield

5.6 (81) K-factor

**VK556
QR Upright**

Base Part Number:	12978—U
Technical Datasheet:	F_012498
Response:	Quick
NPT Thread:	1/2 in
Finish:	Std. Brass



- Also available with fusible link (VK551-p/n 12279—U)
- Shield protects sprinkler from water discharge above
- Use where sprinkler guards are not required

Preassembled with Sprinkler Guard

5.6 (81) K-factor

**VK100
SR Upright**

Base Part Number:	12986—G
Technical Datasheet:	F_052014
Response:	Standard
NPT Thread:	1/2 in
Finish:	Std. Brass



- Also available with fusible link (VK108-p/n 12973—G)
- Preassembled guard protects sprinkler from damage

Preassembled with Sprinkler Guard

5.6 (81) K-factor

**VK102
SR Pendent**

Base Part Number:	12987—G
Technical Datasheet:	F_031414
Response:	Standard
NPT Thread:	1/2 in
Finish:	Std. Brass



- Also available with fusible link (VK110-p/n 12972—G)
- Preassembled guard protects sprinkler from damage

Preassembled with Sprinkler Guard

5.6 (81) K-factor

**VK300
QR Upright**

Base Part Number:	12978—G
Technical Datasheet:	F_052114
Response:	Quick
NPT Thread:	1/2 in
Finish:	Std. Brass



- Also available in high pressure (250 PSI)-VK315
- Also available with fusible link (VK301-p/n 17535—G)
- Preassembled guard protects sprinkler from damage

Preassembled with Sprinkler Guard

5.6 (81) K-factor

**VK302
QR Pendent**

Base Part Number:	12979—G
Technical Datasheet:	F_033314
Response:	Quick
NPT Thread:	1/2 in
Finish:	Std. Brass



- Also available in high pressure (250 PSI)-VK317
- Also available with fusible link (VK303-p/n 17536—G)
- Preassembled guard protects sprinkler from damage

Preassembled with Water Shield

8.0 (115) K-factor

**VK560
SR Upright**

Base Part Number:	10141—U
Technical Datasheet:	F_012498
Response:	Standard
NPT Thread:	3/4 in
Finish:	Std. Brass



- Also available with fusible link (VK562-p/n 05514—U)
- Shield protects sprinkler from water discharge above
- Use where sprinkler guards are not required

Preassembled with Water Shield

8.0 (115) K-factor

**VK566
QR Upright**

Base Part Number:	06665B—U
Technical Datasheet:	F_012498
Response:	Quick
NPT Thread:	3/4 in
Finish:	Std. Brass



- Shield protects sprinkler from water discharge above
- Also available with fusible link (VK567-p/n 13976—U)
- Use where sprinkler guards are not required

Preassembled with Sprinkler Guard

8.0 (115) K-factor

**VK200
SR Upright**

Base Part Number:	10141—G
Technical Datasheet:	F_032814
Response:	Standard
NPT Thread:	3/4 in
Finish:	Std. Brass



- Also available with fusible link (VK204-p/n 05514—G)
- Preassembled guard protects sprinkler from damage

Preassembled with Sprinkler Guard

8.0 (115) K-factor

**VK202
SR Pendent**

Base Part Number:	10142—G
Technical Datasheet:	F-032614
Response:	Standard
NPT Thread:	3/4 in
Finish:	Std. Brass



- Also available with fusible link (VK206-p/n 05516—G)
- Preassembled guard protects sprinkler from damage

Preassembled with Sprinkler Guard

8.0 (115) K-factor

**VK350
QR Upright**

Base Part Number:	06665B—G
Technical Datasheet:	F_033014
Response:	Quick
NPT Thread:	3/4 in
Finish:	Std. Brass



Preassembled with Sprinkler Guard

8.0 (115) K-factor

**VK352
QR Pendent**

Base Part Number:	06666B—G
Technical Datasheet:	F_033414
Response:	Quick
NPT Thread:	3/4 in
Finish:	Std. Brass



- Preassembled guard protects sprinkler from damage

Optional Water Shields

Model E-1 (upright)



Shield



Field-installed

Part Number:	10326
Size:	1/2 in & 3/4 in

Model F-1 (pendent)



Shield



Field-installed

Part Number:	10323 1/2"
Part Number:	10324 3/4"
Size:	1/2 in & 3/4 in

For intermediate level sprinklers preassembled with guard, the Model F-1 water shield may be ordered separately, and field installed (not available preassembled).

ELO Dry Pendant (FM Approved Standard Spray Storage Sprinklers)

11.2 (161.3) K-factor



VK544, Standard Response Dry Pendant ELO

Base Part Number:	19830
Technical Datasheet:	F_040815
Response:	Standard
Element:	Fusible Link
NPT Thread:	1-1/4 in

Example Density	Std CMDA Spk Spacing	(Q) Flow Rate / Sprinkler	(P) Starting Pressure	Example Water Demand (2,000 ft² design area)
0.3 gpm/ft²	100 ft²	30 gpm	7.2 psi	600 gpm
0.4 gpm/ft²	100 ft²	40 gpm	12.8 psi	800 gpm
0.5 gpm/ft²	100 ft²	50 gpm	19.9 psi	1,000 gpm
0.6 gpm/ft²	100 ft²	60 gpm	28.7 psi	1,200 gpm
0.7 gpm/ft²	100 ft²	70 gpm	39.1 psi	1,400 gpm
0.8 gpm/ft²	100 ft²	80 gpm	51.0 psi	1,600 gpm

11.2 (161.3) K-factor



VK547, Quick Response Dry Pendant ELO

Base Part Number:	19828
Technical Datasheet:	F_040915
Response:	Quick
Element:	Fusible Link
NPT Thread:	1-1/4 in

Example Density	Std CMDA Spk Spacing	(Q) Flow Rate / Sprinkler	(P) Starting Pressure	Example Water Demand (2,000 ft² design area)
0.3 gpm/ft²	100 ft²	30 gpm	7.2 psi	600 gpm
0.4 gpm/ft²	100 ft²	40 gpm	12.8 psi	800 gpm
0.5 gpm/ft²	100 ft²	50 gpm	19.9 psi	1,000 gpm
0.6 gpm/ft²	100 ft²	60 gpm	28.7 psi	1,200 gpm
0.7 gpm/ft²	100 ft²	70 gpm	39.1 psi	1,400 gpm
0.8 gpm/ft²	100 ft²	80 gpm	51.0 psi	1,600 gpm

Note: Two optional insulating boots (19330M/W) provided with every plain barrel style sprinkler; one boot shipped with each standard adjustable and recessed adjustable model. Installation of the provided boot assembly is optional.

Extended Coverage Storage Sprinkler

25.2 (363) K-factor



VK595, EC Upright (CMDA and CMSA Applications)

Base Part Number:	16859A
Technical Datasheet:	F_121610
Response:	Quick/Standard
Element:	Fusible Link
NPT Thread:	1 in

- 14 ft x 14 ft maximum coverage area (4.3 m x 4.3 m)
- Suitable for "unobstructed" and certain "non-combustible obstructed" construction
- FM Approved as a quick response, extended coverage sprinkler for both storage and non-storage applications (refer to FM Loss Prevention datasheets and Viking technical datasheet page 124j-m for FM design and installation details)
- Available in 165° F and 214° F temperature ratings

Example Density	Sprinkler Spacing	(Q) Flow Rate / Sprinkler	(P) Starting Pressure	Example Water Demand (2,000 ft² design area)
0.3 gpm/ft²	196 ft²	66.7 gpm	7.0 psi	734 gpm
0.4 gpm/ft²	196 ft²	78.4 gpm	9.7 psi	863 gpm
0.5 gpm/ft²	196 ft²	98.0 gpm	15.1 psi	1,078 gpm
0.6 gpm/ft²	196 ft²	117.6 gpm	21.8 psi	1,294 gpm
0.7 gpm/ft²	100 ft²	70.0 gpm	7.7 psi	1,400 gpm
0.7 gpm/ft²	196 ft²	137.2 gpm	29.6 psi	1,509 gpm
0.8 gpm/ft²	100 ft²	80.0 gpm	10.1 psi	1,600 gpm
0.8 gpm/ft²	196 ft²	156.8 gpm	38.7 psi	1,725 gpm

General Inquiries and Technical Services

General Inquiries
Toll Free: (800) 968-9501
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F: (269) 945-9599
info@vikingcorp.com

Technical Services
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P: (269) 945-9501
F: (269) 818-1680
techsvcs@vikingcorp.com



VIKING SPRINKLERS

Technical Data



TECHNICAL DATA

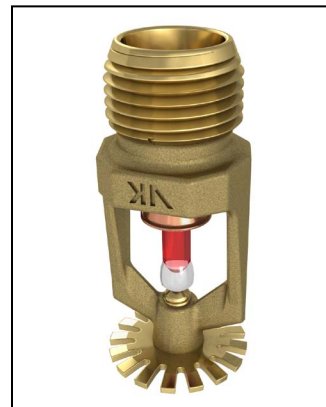
MICROMATIC® STANDARD RESPONSE PENDENT SPRINKLER VK102 (K5.6)

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058
 Telephone: 269-945-9501 Technical Services: 877-384-5464 Fax: 269-818-1680 Email: techsvcs@vikingcorp.com
 Visit the Viking website for the latest edition of this technical data page www.vikinggroupinc.com

1. DESCRIPTION

The Viking Micromatic® Standard Response Pendent VK102 Sprinkler is a small, thermosensitive, glass-bulb spray sprinkler available in several different finishes and temperature ratings to meet design requirements. The special Polyester, and Electroless Nickel PTFE (ENT) coatings can be used in decorative applications where colors are desired. In addition, these coatings have been investigated for installation in corrosive atmospheres and are listed/approved as corrosion resistant as indicated in the Approval Charts. (Note: **FM Global approves the ENT coating as corrosion resistant.** FM Global has no approval classification for Polyester coatings as corrosion resistant.)

Viking standard response sprinklers may be ordered and/or used as open sprinklers (glass bulb and pip cap assembly removed) on deluge systems. Refer to Ordering Instructions.



2. LISTINGS AND APPROVALS



cULus Listed: Category VNIV



FM Approved: Class Series 2000



VdS Approved: Certificate G414006 & G414004



LPCB Approved



CE Certified: Standard EN 12259-1, EC-certificate of conformity 0832-CPD-2021



CCC Approved: Approved by the China Certification Center for Fire Products (CCC)

NOTE: Other International approval certificates are available upon request.

Refer to Approval Charts and Design Criteria for listing and approval requirements that must be followed.

3. TECHNICAL DATA

Specifications:

Minimum Operating Pressure: 7 psi (0.5 bar)†
 Maximum Working Pressure: 175 psi (12 bar) wwp
 Factory tested hydrostatically to 500 psi (34.5 bar)
 Thread size: 1/2" NPT, 15 mm BSP
 Nominal K-Factor: 5.6 U.S. (80.6 metric**)
 Glass-bulb fluid temperature rated to -65 °F (-55 °C)
 Overall Length: 2-1/4" (57 mm)

† cULus Listing, FM Approval, and NFPA 13 installs require a minimum of 7 psi (0.5 bar). The minimum operating pressure for LPCB and CE Approvals ONLY is 5 psi (0.35 bar).

Material Standards:

Frame Casting: Brass UNS-C84400 or QM Brass
 Deflector: Phosphor Bronze UNS-C51000†† or Copper UNS-C19500
 Bulb: Glass, nominal 5 mm diameter
 Belleville Spring Sealing Assembly: Nickel Alloy, coated on both sides with PTFE Tape
 Screw: Brass UNS-C36000
 Pip Cap and Insert Assembly: Copper UNS-C11000 and Stainless Steel UNS-S30400
For Polyester Coated Sprinklers: Belleville Spring-Exposed
For ENT coated Sprinklers: Belleville Spring - Exposed, Screw and Pipcap - ENT plated.

††Not for FM Approval.

Ordering Information: (Also refer to the current Viking price list.)

Order Micromatic® Standard Response Pendent VK102 by first adding the appropriate suffix for the sprinkler finish and then the appropriate suffix for the temperature rating to the sprinkler base part number.

Finish Suffix: Brass = A, Chrome = F, White Polyester = M-W, Black Polyester = M-B, Wax Coated = C, Wax Over Polyester = V-W, ENT = JN



TECHNICAL DATA

MICROMATIC® STANDARD RESPONSE PENDENT SPRINKLER VK102 (K5.6)

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058

Telephone: 269-945-9501 Technical Services: 877-384-5464 Fax: 269-818-1680 Email: techsvcs@vikingcorp.com

Visit the Viking website for the latest edition of this technical data page www.vikinggroupinc.com

Temperature Suffix: 135 °F (57 °C) = A, 155 °F (68 °C) = B, 175 °F (79 °C) = D, 200 °F (93 °C) = E, 212 °F (100 °C) = M, 286 °F (141 °C) = G, 360 °F (182 °C) = H, 500 °F (260 °C) = L.

For example, sprinkler VK102 with a 1/2" thread, Brass finish and a 155 °F (68 °C) temperature rating = Part No. 12987AB

Available Finishes And Temperature Ratings: Refer to Table 1.

Accessories: (Also refer to the Viking website.)

Sprinkler Wrenches:

A. Standard Wrench: Part No. 21475M/B (available since 2017).

B. Standard Wrench for Wax Coated Sprinklers: Part No. 10896W/B (available since 2000)

C. Socket Wrench for Recessed Pendent Sprinklers: Part No. 13655W/B* (available since 2006)

D. Optional Protective Sprinkler Cap Remover/Escutcheon Installer Tool** Part No. 15915 (available since 2010.)

E. Socket Wrench for Wax Coated Sprinklers: Part No. 13577W/B* (available since 2006)

*A 1/2" ratchet is required (not available from Viking).

**Allows use from the floor by attaching a length of 1" diameter CPVC tubing to the tool. Ideal for sprinkler cabinets. Refer to Bulletin F_051808.

Sprinkler Cabinets:

A. Six-head capacity: Part No. 01724A (available since 1971)

B. Twelve-head capacity: Part No. 01725A (available since 1971)

4. INSTALLATION

Refer to appropriate NFPA Installation Standards.

5. 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 flowing through the sprinkler orifice strikes the sprinkler deflector, forming a uniform spray pattern to extinguish or control the fire.

6. INSPECTIONS, TESTS AND MAINTENANCE

Refer to NFPA 25 for Inspection, Testing and Maintenance requirements.

7. AVAILABILITY

The Viking Micromatic® Standard Response Pendent Sprinkler VK102 is available through a network of domestic and international distributors. See The Viking Corporation web site for the closest distributor or contact The Viking Corporation.

8. GUARANTEE

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



TECHNICAL DATA

MICROMATIC® STANDARD RESPONSE PENDENT SPRINKLER VK102 (K5.6)

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058
 Telephone: 269-945-9501 Technical Services: 877-384-5464 Fax: 269-818-1680 Email: techsvcs@vikingcorp.com
 Visit the Viking website for the latest edition of this technical data page www.vikinggroupinc.com

TABLE 1: AVAILABLE SPRINKLER TEMPERATURE RATINGS AND FINISHES

Sprinkler Temperature Classification	Sprinkler Nominal Temperature Rating ¹	Maximum Ambient Ceiling Temperature ²	Bulb Color
Ordinary	135 °F (57 °C)	100 °F (38 °C)	Orange
Ordinary	155 °F (68 °C)	100 °F (38 °C)	Red
Intermediate	175 °F (79 °C)	150 °F (65 °C)	Yellow
Intermediate	200 °F (93 °C)	150 °F (65 °C)	Green
High	286 °F (141 °C)	225 °F (107 °C)	Blue
Extra High	360 °F (182 °C)	300 °F (149 °C)	Mauve
Ultra High ³	500 °F (260 °C)	465 °F (240 °C)	Black

Sprinkler Finishes: Brass, Chrome, White Polyester, Black Polyester, and ENT

Corrosion-Resistant Coatings⁴: White Polyester and Black Polyester in all temperature ratings. ENT in all temperature ratings except 135 °F (57 °C). Wax-Coated Brass and Wax over Polyester⁵ for sprinklers with the following temperature ratings:

155 °F (68 °C) Lt. Brown Wax 175 °F (79 °C) Brown Wax 200 °F (93 °C) Brown Wax

212 °F (100 °C) Dk. Brown Wax⁵ 286 °F (141 °C) Dk. Brown Wax⁵

Footnotes

¹ The sprinkler temperature rating is stamped on the deflector.

² Based on NFPA-13. Other limits may apply, depending on fire loading, sprinkler location, and other requirements of the Authority Having Jurisdiction. Refer to specific installation standards.

³ Sprinklers of Ultra-High temperature rating are intended for use inside ovens, dryers, or similar enclosures with normal operating temperatures above 300 °F (149 °C). Where the ambient temperature around the Ultra-High temperature rated sprinkler is significantly reduced below 300 °F (149 °C), response time may be severely retarded.

⁴ The corrosion-resistant coatings have passed the standard corrosion test required by the approving agencies indicated in the Approval Charts. These tests cannot and do not represent all possible corrosive environments. Prior to installation, verify through the end-user that the coatings are compatible with or suitable for the proposed environment. For automatic sprinklers, the coatings indicated are applied to the exposed exterior surfaces only. Note that the spring is exposed on sprinklers with Polyester and ENT coatings. For ENT coated automatic sprinklers, the waterway is coated.

⁵ Wax melting point is 170 °F (76 °C) for 212 °F (100 °C) and 286 °F (141 °C) temperature rated sprinklers.

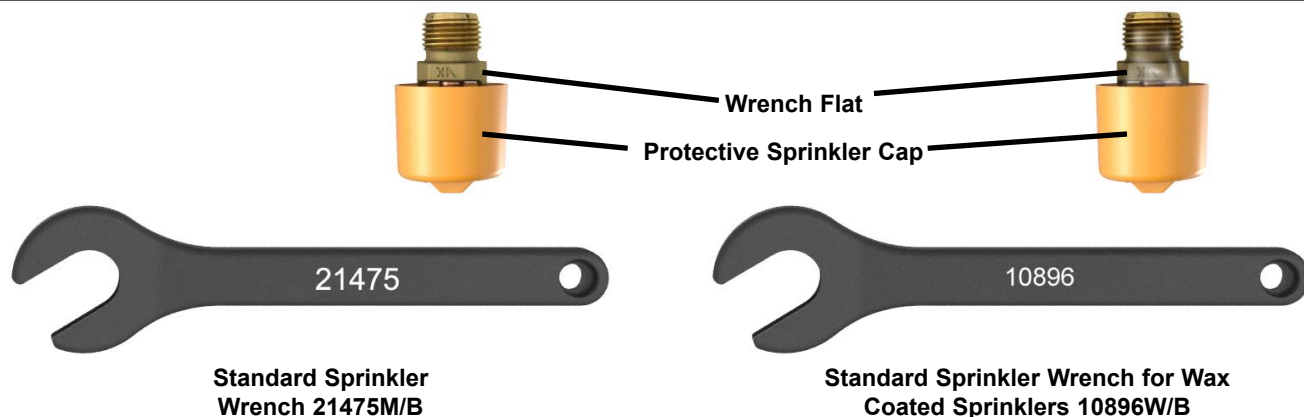




Figure 1:
Standard Sprinkler Wrenches



TECHNICAL DATA

MICROMATIC® STANDARD RESPONSE PENDENT SPRINKLER VK102 (K5.6)

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Approval Chart 1 (UL)													
Micromatic® Standard Response Pendent Sprinkler VK102													
Maximum 175 PSI (12 bar) WWP													
<div><div>Temperature</div><div>Finish</div><div>A1X ← Escutcheon (if applicable)</div><div>KEY</div></div>													
Sprinkler Base Part Number ¹	SIN	Thread Size		Nominal K-Factor		Overall Length		Listings and Approvals ³ (Refer also to UL Design Criteria.)					
		NPT	BSP	U.S.	metric ²	Inches	mm	cULus ⁴	VdS	LPCB	CE ⁸		
Standard Orifice													
12987	VK102	1/2"	15 mm	5.6	80.6	2-1/4"	57	A1, B4, B1Y, C5, D3, E6, G6Z	A2	A2, B4, B2Y	F2, G2Y	--	--
12989	VK102	--	15 mm	5.6	80.6	2-1/4"	57	A1, B4, B1Y, C5, D3, E6, G6Z	A2	A2, B4, B2Y	F2, G2Y	--	--
19776	VK102	1/2"	--	5.6	80.6	2-1/4"	57	--	--	--	--	--	E7
20229	VK102	--	15 mm	5.6	80.6	2-1/4"	57	--	--	--	--	--	E7
NOTICE - Product Below - Limited Availability (Contact Local Viking Office)													
10139	VK102	1/2"	15 mm	5.6	80.6	2-1/4"	57	A1, B4, B1Y, C5, D3, E6, G6Z	--	--	--	--	--
10173	VK102	--	15 mm	5.6	80.6	2-1/4"	57	A1, B4, B1Y, C5, D3, E6, G6Z	A2	A2, B4, B2Y	--	--	--
18020	VK102	1/2"	15 mm	5.6	80.6	2-1/4"	57	A1, B4, B1Y, C5, D3, E6, G6Z	A2	A2, B4, B2Y	F2, G2X	F2 ^{9, 10}	--
Approved Temperature Ratings					Approved Finishes					Approved Escutcheons			
A - 135 °F (57 °C), 155 °F (68 °C), 175 °F (79 °C), 200 °F (93 °C), 286 °F (141 °C), and 360 °F (182 °C)					1 - Brass, Chrome, White Polyester ^{5,6} , and Black Polyester ^{5,6}					X - Recessed with the Viking Micromatic® Model E-1, E-2, or E-3 Recessed Escutcheon			
B - 135 °F (57 °C), 155 °F (68 °C), 175 °F (79 °C), and 200 °F (93 °C)					2 - Brass, Chrome, White Polyester ⁶ , and Black Polyester ⁶					Y - Standard surface-mounted escutcheon or the Viking Microfast® Model F-1 Adjustable Escutcheon or recessed with the Viking Micromatic® Model E-1, E-2, or E-3 Recessed Escutcheon			
C - 286 °F (141 °C)					3 - Brass and Chrome					Z - Standard surface-mounted escutcheon or recessed with the Viking Micromatic® Model E-1			
D - 500 °F (260 °C) ⁷					4 - Wax-Coated Brass and Wax Over Polyester ⁵								
E - 155 °F (68 °C), 175 °F (79 °C), 200 °F (93 °C), 286 °F (141 °C), and 360 °F (182 °C)					5 - High Temperature 200 °F (93 °C) Wax Coating (corrosion resistant); maximum ambient temperature allowed at ceiling = 150 °F (65 °C)								
F - 155 °F (68 °C), 175 °F (79 °C), 200 °F (93 °C), 286 °F (141 °C), and 360 °F (182 °C)					6 - ENT ⁵								
G - 155 °F (68 °C), 175 °F (79 °C), and 200 °F (93 °C)					7 - Chrome								
Footnotes													
¹ Base part number is shown. For complete part number, refer to Viking's current price schedule.													
² 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.													
³ This table shows the listings and approvals available at the time of printing. Check with the manufacturer for any additional approvals.													
⁴ Listed by Underwriters Laboratories Inc. for use in the U.S. and Canada.													
⁵ cULus Listed as corrosion resistant.													
⁶ Other colors are available on request with the same Listings and Approvals as the standard colors.													
⁷ Sprinklers of Ultra-High temperature rating are intended for use inside ovens, dryers, or similar enclosures with normal operating temperatures above 300 °F (149 °C). Where the ambient temperature around the Ultra-High temperature rated sprinkler is significantly reduced below 300 °F (149 °C), the response time of the Ultra-High temperature rated sprinkler may be severely retarded.													
⁸ CE Certified, Standard EN 12259-1, EC-certificate of conformity 0832-CPD-0021.													
⁹ MED Certified, Standard EN 12259-1, EC-certificate of conformity 0832-MED-1003 and 0832-MED-1008.													
¹⁰ MED Certified. RINA Certificate No. MED497705C5.													

DESIGN CRITERIA - UL

(Also refer to Approval Chart 1.)

cULus Listing Requirements:

The Viking Micromatic® Standard Response Pendent Sprinkler VK102 is cULus Listed as indicated in Approval Chart 1 for installation in accordance with the latest edition of NFPA 13 for standard spray sprinklers.

- Designed for use in Light, Ordinary, and Extra Hazard occupancies.
- The sprinkler installation rules contained in NFPA 13 for standard spray pendent sprinklers must be followed.

IMPORTANT: Always refer to Bulletin Form No. F_091699 - Care and Handling of Sprinklers. Also refer to page F_080614 for general care, installation, and maintenance information. Viking sprinklers are to be installed in accordance with the latest edition of Viking technical data, the appropriate standards of NFPA, LPCB, APSAD, VdS or other similar organizations, and also with the provisions of governmental codes, ordinances, and standards, whenever applicable.



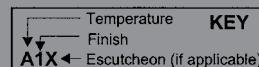
TECHNICAL DATA

MICROMATIC® STANDARD RESPONSE PENDENT SPRINKLER VK102 (K5.6)

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058
 Telephone: 269-945-9501 Technical Services: 877-384-5464 Fax: 269-818-1680 Email: techsvcs@vikingcorp.com
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Approval Chart 2 (FM)

Micromatic® Standard Response Pendent Sprinkler VK102
 Maximum 175 PSI (12 bar) WWP



Sprinkler Base Part Number ¹	SIN	Thread Size		Nominal K-Factor		Overall Length		FM Approvals ³ (Refer also to Design Criteria below.)
		NPT	BSP	U.S.	metric ²	Inches	mm	
Standard Orifice								
12987	VK102	1/2"	15 mm	5.6	80.6	2-1/4"	57	A1, B2, C3, D1, E4, G1Y, G4Z
12989	VK102	--	15 mm	5.6	80.6	2-1/4"	57	A1, B2, C3, D1, E4, G1Y, G4Z
NOTICE - Product Below - Limited Availability (Contact Local Viking Office)								
10139	VK102	1/2"	15 mm	5.6	80.6	2-1/4"	57	A1, B2, C3, D1, E4, G1Y, G4Z
10173	VK102	--	15 mm	5.6	80.6	2-1/4"	57	A1, B2, C3, D1, E4, G1Y, G4Z
18020	VK102	1/2"	15 mm	5.6	80.6	2-1/4"	57	A1, B2, C3, D1, G1Y
Approved Temperature Ratings A - 135 °F (57 °C), 155 °F (68 °C), 175 °F (79 °C), 200 °F (93 °C), 212 °F (100 °C), 286 °F (141 °C), and 360 °F (182 °C) B - 135 °F (57 °C), 155 °F (68 °C), 175 °F (79 °C), 200 °F (93 °C), and 212 °F (100 °C) C - 286 °F (141 °C) D - 500 °F (260 °C) ⁵ E - 155 °F (68 °C), 175 °F (79 °C), 200 °F (93 °C), 286 °F (141 °C), 360 °F (182 °C), and 500 °F (260 °C) ⁵ F - 135 °F (57 °C), 155 °F (68 °C), 175 °F (79 °C), and 200 °F (93 °C) G - 155 °F (68 °C), 175 °F (79 °C), and 200 °F (93 °C)				Approved Finishes 1 - Brass, Chrome, White Polyester ⁴ , and Black Polyester ⁴ 2 - Wax-Coated Brass (corrosion resistant) 3 - High Temperature 200 °F (93 °C) Wax Coating (corrosion resistant); maximum ambient temperature allowed at the ceiling = 150 °F (65 °C) 4- ENT ⁶			Approved Escutcheons Y - Standard surface-mounted escutcheon or the Viking Microfast® Model F-1 Adjustable Escutcheon or recessed with the Viking Micromatic® Model E-1, E-2, or E-3 Recessed Escutcheon Z - Standard surface-mounted escutcheon or re- cessed with the Viking Micromatic® Model E-1	
Footnotes ¹ Base part number is shown. For complete part number, refer to Viking's current price schedule. ² 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. ³ This table shows the listings and approvals available at the time of printing. Check with the manufacturer for any additional approvals. ⁴ Other colors are available on request with the same Approvals as the standard colors. ⁵ Sprinklers of Ultra-High temperature rating are intended for use inside ovens, dryers, or similar enclosures with normal operating temperatures above 300 °F (149 °C). Where the ambient temperature around the Ultra-High temperature rated sprinkler is significantly reduced below 300 °F (149 °C), the response time of the Ultra-High temperature rated sprinkler may be severely retarded. ⁶ FM approved as corrosion resistant.								

DESIGN CRITERIA - FM

(Also refer to Approval Chart 2.)

FM Approval Requirements:

The Viking Micromatic® Standard Response Pendent Sprinkler VK102 is is FM Approved as standard response **Non-Storage** pendent sprinkler as indicated in the FM Approval Guide. For specific application and installation requirements, reference the latest applicable FM Loss Prevention Data Sheets (including Data Sheet 2-0). FM Global Loss Prevention Data Sheets contain guidelines relating to, but not limited to: minimum water supply requirements, hydraulic design, ceiling slope and obstructions, minimum and maximum allowable spacing, and deflector distance below the ceiling.

NOTE: The FM installation guidelines may differ from cULus and/or NFPA criteria.

IMPORTANT: Always refer to Bulletin Form No. F_091699 - Care and Handling of Sprinklers. Also refer to page F_080614 for general care, installation, and maintenance information. Viking sprinklers are to be installed in accordance with the latest edition of Viking technical data, the appropriate standards of NFPA, FM Global, LPCB, APSAD, VdS or other similar organizations, and also with the provisions of governmental codes, ordinances, and standards, whenever applicable.



TECHNICAL DATA

MICROMATIC® STANDARD RESPONSE PENDENT SPRINKLER VK102 (K5.6)

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058
 Telephone: 269-945-9501 Technical Services: 877-384-5464 Fax: 269-818-1680 Email: techsvcs@vikingcorp.com
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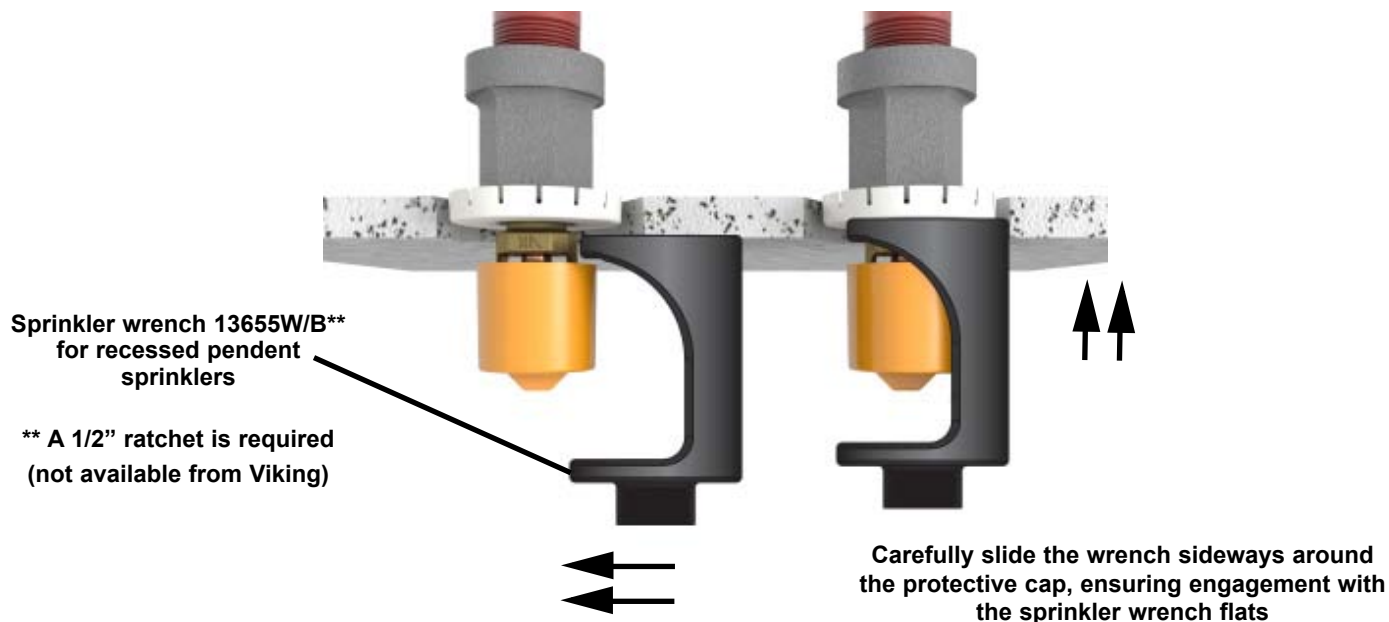


Figure 2: Wrench 13655W/B for Recessed Pendent Sprinklers

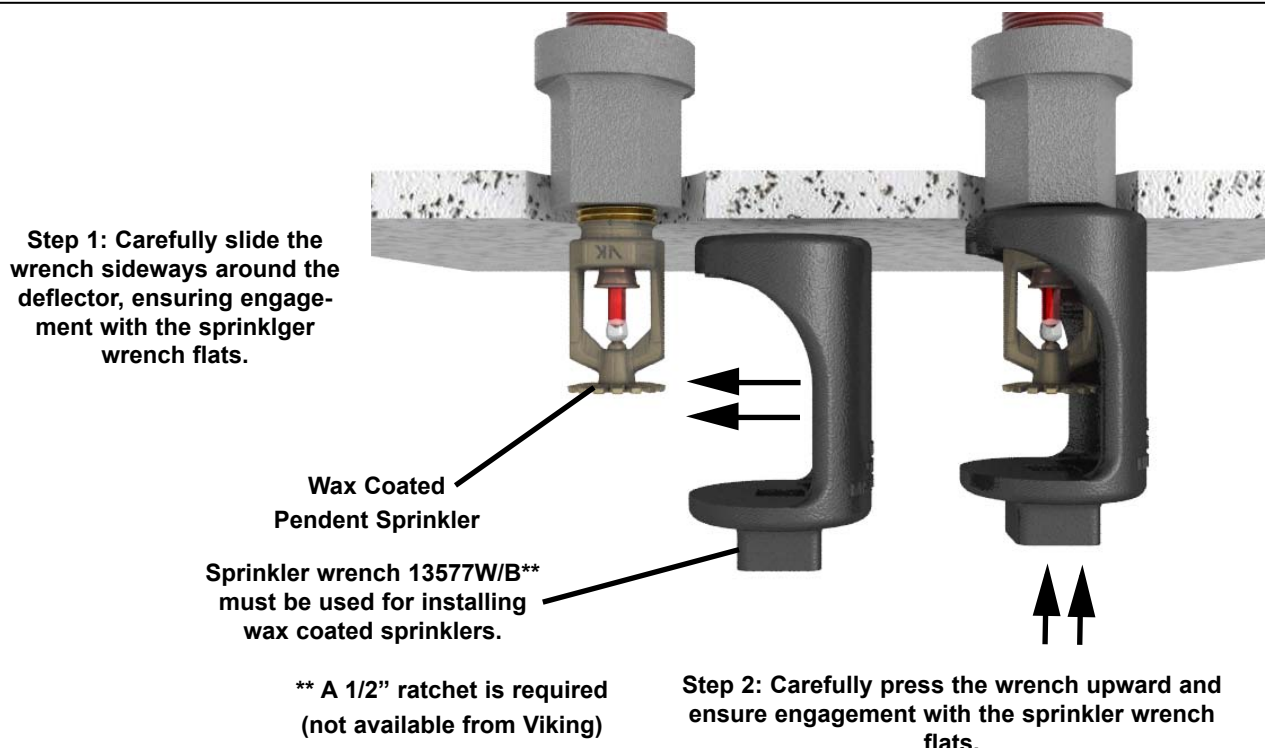


Figure 3: Socket Wrench for Wax Coated Sprinklers 13577W/B



TECHNICAL DATA

MICROMATIC® STANDARD RESPONSE PENDENT SPRINKLER VK102 (K5.6)

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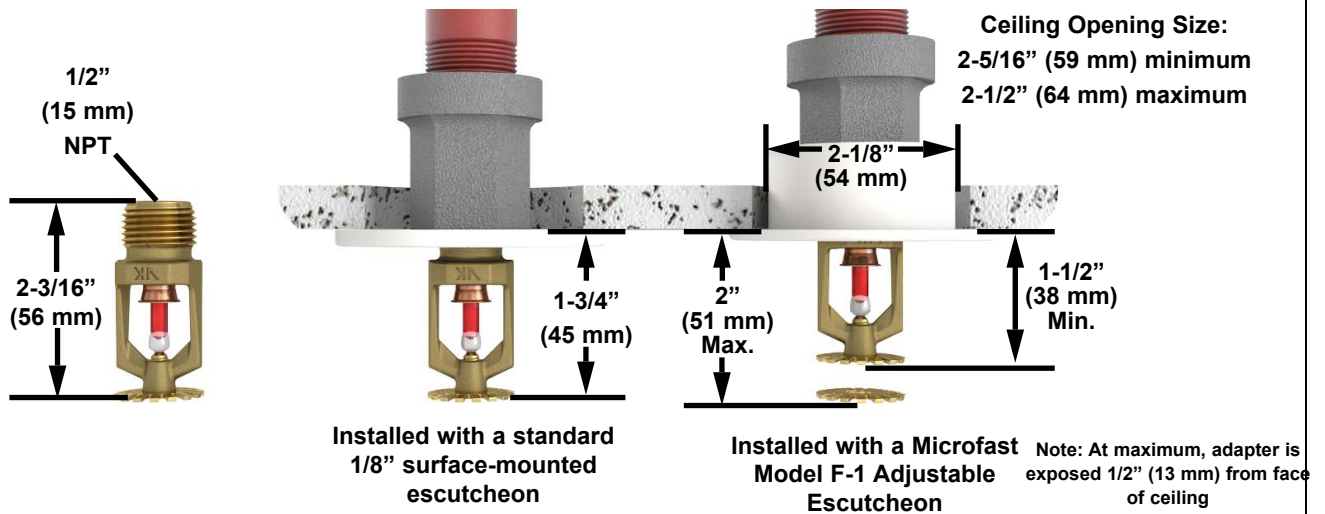


Figure 4: Sprinkler Dimensions with a Standard Escutcheon and the Model F-1 Adjustable Escutcheon

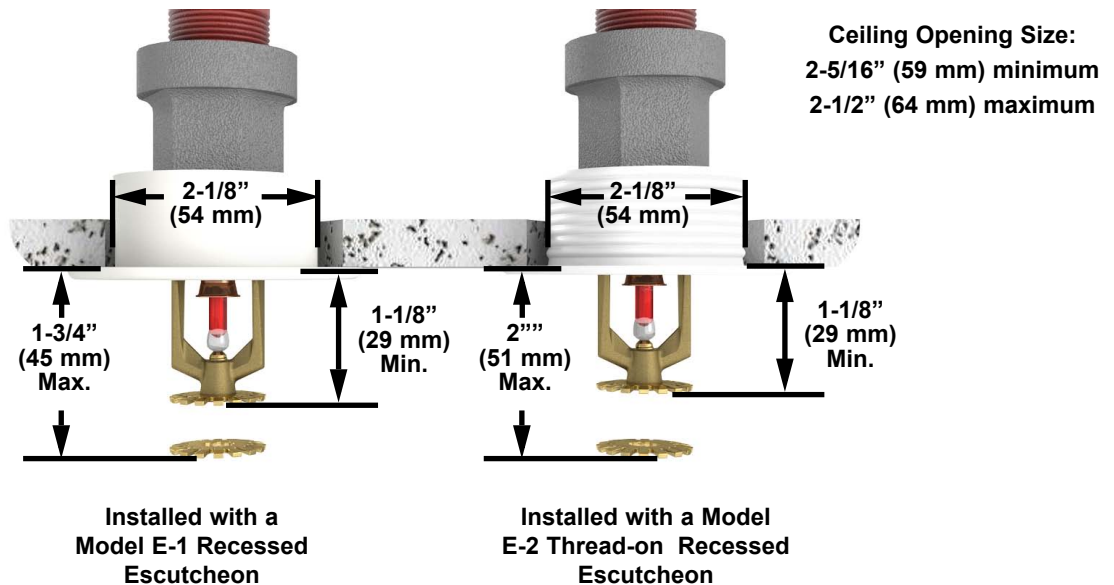


Figure 5: Sprinkler Dimensions with the Model E-1 and E-2 Recessed Escutcheons



TECHNICAL DATA

MICROMATIC® STANDARD RESPONSE UPRIGHT SPRINKLER VK100 (K5.6)

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058

Telephone: 269-945-9501 Technical Services: 877-384-5464 Fax: 269-818-1680 Email: techsvcs@vikingcorp.com

Visit the Viking website for the latest edition of this technical data page: www.vikinggroupinc.com

1. DESCRIPTION

The Viking Micromatic® Standard Response Upright VK100 Sprinkler is a small, thermosensitive, glass-bulb spray sprinkler available in several different finishes and temperature ratings to meet design requirements. The special Polyester and Electroless Nickel PTFE (ENT) coatings can be used in decorative applications where colors are desired. In addition, these coatings have been investigated for installation in corrosive atmospheres and are listed/approved as corrosion resistant as indicated in the Approval Charts. (Note: **FM Global approves the ENT coating as corrosion resistant.** FM Global has no approval classification for Polyester coatings as corrosion resistant.)

Viking standard response sprinklers may be ordered and/or used as open sprinklers (glass bulb and pip cap assembly removed) on deluge systems. Refer to Ordering Instructions.



2. LISTINGS AND APPROVALS



cULus Listed: Category VNIV



FM Approved: Classes 2001, 2002, 2015, 2017, 2043

NOTE: Other International approval certificates are available upon request.

Refer to Approval Charts and Design Criteria for listing and approval requirements that must be followed.

3. TECHNICAL DATA

Specifications:

Minimum Operating Pressure: 7 psi (0.5 bar)†
Maximum Working Pressure: 175 psi (12 bar) wwp
Factory tested hydrostatically to 500 psi (34.5 bar)
Thread size: 1/2" NPT, 15 mm BSP
Nominal K-Factor: 5.6 U.S. (80.6 metric**)
Glass-bulb fluid temperature rated to -65 °F (-55 °C)
Overall Length: 2-3/8" (60 mm)

† cULus Listing, FM Approval, and NFPA 13 installs require a minimum of 7 psi (0.5 bar). The minimum operating pressure for LPCB and CE Approvals ONLY is 5 psi (0.35 bar).

** Metric K-factor measurement shown is in Bar. When pressure is measured in kPa, divide the metric K-factor shown by 10.0.

Material Standards:

Frame Casting: Brass UNS-C84400 or QM Brass
Deflector: Brass UNS-C23000 or Copper UNS-C19500
Bulb: Glass, nominal 5 mm diameter
Belleville Spring Sealing Assembly: Nickel Alloy, coated on both sides with PTFE Tape
Screw: Brass UNS-C36000
Pip Cap and Insert Assembly: Copper UNS-C11000 and Stainless Steel UNS-S30400
For Polyester Coated Sprinklers: Belleville Spring-Exposed
For ENT coated Sprinklers: Belleville Spring - Exposed, Screw and Pipcap - ENT plated.

††Not for FM Approval.

Ordering Information: (Also refer to the current Viking price list.)

Order Micromatic® Standard Response Upright VK100 by first adding the appropriate suffix for the sprinkler finish and then the appropriate suffix for the temperature rating to the sprinkler base part number.

Finish Suffix: Brass = A, Chrome = F, White Polyester = M-W, Black Polyester = M-B, Wax Coated = C, Wax Over Polyester = V-W, ENT = JN

Temperature Suffix: 135 °F (57 °C) = A, 155 °F (68 °C) = B, 175 °F (79 °C) = D, 200 °F (93 °C) = E, 212 °F (100 °C) = M, 286 °F (141 °C) = G, 360 °F (182 °C) = H, 500 °F (260 °C) = L.

For example, sprinkler VK100 with a 1/2" thread, Brass finish and a 155 °F (68 °C) temperature rating = Part No. 12986AB

Available Finishes And Temperature Ratings: Refer to Table 1.



TECHNICAL DATA

MICROMATIC® STANDARD RESPONSE UPRIGHT SPRINKLER VK100 (K5.6)

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058

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Visit the Viking website for the latest edition of this technical data page: www.vikinggroupinc.com

Accessories: (Also refer to the Viking website.)

Sprinkler Wrenches:

A. Standard Wrench: Part No. 21475M/B (available since 2017).

B. Standard Wrench for Wax Coated Sprinklers: Part No. 10896W/B

C. Socket Wrench for Wax Coated Sprinklers: Part No. 13577W/B* (available since 2006)

*A ½" ratchet is required (not available from Viking).

Sprinkler Cabinets:

A. Six-head capacity: Part No. 01724A (available since 1971)

B. Twelve-head capacity: Part No. 01725A (available since 1971)

4. INSTALLATION

Refer to appropriate NFPA Installation Standards.

5. 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 flowing through the sprinkler orifice strikes the sprinkler deflector, forming a uniform spray pattern to extinguish or control the fire.

6. INSPECTIONS, TESTS AND MAINTENANCE

Refer to NFPA 25 for Inspection, Testing and Maintenance requirements.

7. AVAILABILITY

The Viking Micromatic® Standard Response Upright Sprinkler VK100 is available through a network of domestic and international distributors. See The Viking Corporation web site for the closest distributor or contact The Viking Corporation.

8. GUARANTEE

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

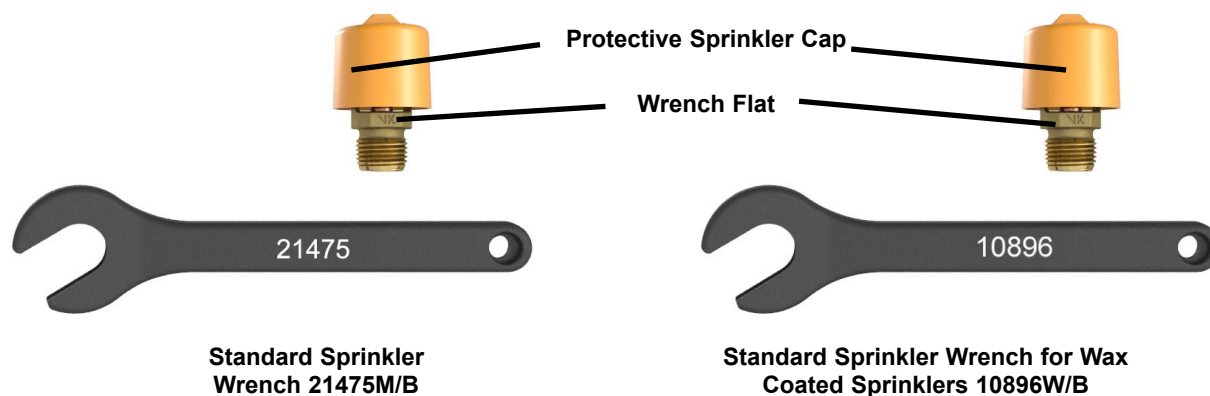


Figure 1:
Standard Sprinkler Wrenches



TECHNICAL DATA

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TABLE 1: AVAILABLE SPRINKLER TEMPERATURE RATINGS AND FINISHES

Sprinkler Temperature Classification	Sprinkler Nominal Temperature Rating ¹	Maximum Ambient Ceiling Temperature ²	Bulb Color
Ordinary	135 °F (57 °C)	100 °F (38 °C)	Orange
Ordinary	155 °F (68 °C)	100 °F (38 °C)	Red
Intermediate	175 °F (79 °C)	150 °F (65 °C)	Yellow
Intermediate	200 °F (93 °C)	150 °F (65 °C)	Green
High	286 °F (141 °C)	225 °F (107 °C)	Blue
Extra High	360 °F (182 °C)	300 °F (149 °C)	Mauve
Ultra High ³	500 °F (260 °C)	465 °F (240 °C)	Black

Sprinkler Finishes: Brass, Chrome, White Polyester, Black Polyester, and ENT

Corrosion-Resistant Coatings⁴: White Polyester, Black Polyester, and Black PTFE in all temperature ratings. ENT in all temperature ratings except 135 °F (57 °C). Wax-Coated Brass and Wax over Polyester⁵ for sprinklers with the following temperature ratings:

155 °F (68 °C) Lt. Brown Wax 175 °F (79 °C) Brown Wax 200 °F (93 °C) Brown Wax 286 °F (141 °C) Dk. Brown Wax⁵

Footnotes

¹ The sprinkler temperature rating is stamped on the deflector.

² Based on NFPA-13. Other limits may apply, depending on fire loading, sprinkler location, and other requirements of the Authority Having Jurisdiction. Refer to specific installation standards.

³ Sprinklers of Ultra-High temperature rating are intended for use inside ovens, dryers, or similar enclosures with normal operating temperatures above 300 °F (149 °C). Where the ambient temperature around the Ultra-High temperature rated sprinkler is significantly reduced below 300 °F (149 °C), response time may be severely retarded.

⁴ The corrosion-resistant coatings have passed the standard corrosion test required by the approving agencies indicated in the Approval Charts. These tests cannot and do not represent all possible corrosive environments. Prior to installation, verify through the end-user that the coatings are compatible with or suitable for the proposed environment. For automatic sprinklers, the coatings indicated are applied to the exposed exterior surfaces only. Note that the spring is exposed on sprinklers with Polyester and ENT coatings. For ENT coated automatic sprinklers, the waterway is coated.

⁵ Wax melting point is 170 °F (76 °C) for 286 °F (141 °C) temperature rated sprinklers.



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Approval Chart 1 (UL)

Micromatic® Standard Response Upright Sprinkler VK100
Maximum 175 PSI (12 bar) WWP

Temperature	KEY
Finish	
A1X ← Escutcheon (if applicable)	

Sprinkler Base Part Number ¹	SIN	Thread Size		Nominal K-Factor		Overall Length		Listings and Approvals ³ (Refer also to UL Design Criteria.)			
		NPT	BSP	U.S.	metric ²	Inches	mm	cULus ⁴	VdS	LPCB	CE
Standard Orifice											
12986	VK100	1/2"	15 mm	5.6	80.6	2-1/4"	57	A1, B3, C4, D2, E5	--	--	--
12993	VK100	--	15 mm	5.6	80.6	2-1/4"	57	A1, B3, C4, D2, E5	--	--	--
NOTICE - Product Below - Limited Availability (Contact Local Viking Office)											
10138	VK100	1/2"	15 mm	5.6	80.6	2-1/4"	57	A1, B3, C4, D2, E5	--	--	--
10193	VK100	--	15 mm	5.6	80.6	2-1/4"	57	A1, B3, C4, D2, E5	--	--	--
Approved Temperature Ratings						Approved Finishes 1 - Brass, Chrome, White Polyester ^{5,6} , and Black Polyester ^{5,6} 2 - Brass and Chrome 3 - Wax-Coated Brass and Wax Over Polyester ⁵ 4 - High Temperature 200 °F (93 °C) Wax Coating (corrosion resistant); maximum ambient temperature allowed at ceiling = 150 °F (65 °C) 5 - ENT ⁵					
A - 135 °F (57 °C), 155 °F (68 °C), 175 °F (79 °C), 200 °F (93 °C), 286 °F (141 °C), and 360 °F (182 °C) B - 135 °F (57 °C), 155 °F (68 °C), 175 °F (79 °C), and 200 °F (93 °C) C - 286 °F (141 °C) D - 500 °F (260 °C) ⁷ E - 155 °F (68 °C), 175 °F (79 °C), 200 °F (93 °C), 286 °F (141 °C), 360 °F (182 °C), and 500 °F (260 °C) ⁷											
Footnotes											
¹ Base part number is shown. For complete part number, refer to Viking's current price schedule.											
² 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.											
³ This table shows the listings and approvals available at the time of printing. Check with the manufacturer for any additional approvals.											
⁴ Listed by Underwriters Laboratories Inc. for use in the U.S. and Canada.											
⁵ cULus Listed as corrosion resistant.											
⁶ Other colors are available on request with the same Listings and Approvals as the standard colors.											
⁷ Sprinklers of Ultra-High temperature rating are intended for use inside ovens, dryers, or similar enclosures with normal operating temperatures above 300 °F (149 °C). Where the ambient temperature around the Ultra-High temperature rated sprinkler is significantly reduced below 300 °F (149 °C), the response time of the Ultra-High temperature rated sprinkler may be severely retarded.											

DESIGN CRITERIA - UL

(Also refer to Approval Chart 1.)

cULus Listing Requirements:

The Viking Micromatic® Standard Response Upright Sprinkler VK100 is cULus Listed as indicated in Approval Chart 1 for installation in accordance with the latest edition of NFPA 13 for standard spray sprinklers.

- Designed for use in Light, Ordinary, and Extra Hazard occupancies.
- The sprinkler installation rules contained in NFPA 13 for standard spray upright sprinklers must be followed.

IMPORTANT: Always refer to Bulletin Form No. F_091699 - Care and Handling of Sprinklers. Also refer to Bulletin Form No. F_080614 for general care, installation, and maintenance information. Viking sprinklers are to be installed in accordance with the latest edition of Viking technical data, the appropriate standards of NFPA, LPCB, APSAD, VdS or other similar organizations, and also with the provisions of governmental codes, ordinances, and standards, whenever applicable.



TECHNICAL DATA

MICROMATIC® STANDARD RESPONSE UPRIGHT SPRINKLER VK100 (K5.6)

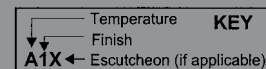
The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058

Telephone: 269-945-9501 Technical Services: 877-384-5464 Fax: 269-818-1680 Email: techsvcs@vikingcorp.com

Visit the Viking website for the latest edition of this technical data page: www.vikinggroupinc.com

Approval Chart 2 (FM)

Micromatic® Standard Response Upright Sprinkler VK100
Maximum 175 PSI (12 bar) WWP



Sprinkler Base Part Number ¹	SIN	Thread Size		Nominal K-Factor		Overall Length		FM Approvals ³ (Refer also to Design Criteria below.)
		NPT	BSP	U.S.	metric ²	Inches	mm	
Standard Orifice								
12986	VK100	1/2"	15 mm	5.6	80.6	2-1/4"	57	A1, B2, C3, D1, E4, F6
12993	VK100	--	15 mm	5.6	80.6	2-1/4"	57	A1, D1, E4, F6, G5
NOTICE - Product Below - Limited Availability (Contact Local Viking Office)								
10138	VK100	1/2"	15 mm	5.6	80.6	2-1/4"	57	A1, B2, C3, D1, E4, F6
10193	VK100	--	15 mm	5.6	80.6	2-1/4"	57	A1, G5, D1, E4, F6
Approved Temperature Ratings A - 135 °F (57 °C), 155 °F (68 °C), 175 °F (79 °C), 200 °F (93 °C), 212 °F (100 °C), 286 °F (141 °C), and 360 °F (182 °C) B - 135 °F (57 °C), 155 °F (68 °C), 175 °F (79 °C), 200 °F (93 °C) and 212 °F (100 °C) C - 286 °F (141 °C) D - 500 °F (260 °C) ⁵ E - 155 °F (68 °C) F - 155 °F (68 °C), 175 °F (79 °C), 200 °F (93 °C), 286 °F (141 °C), 360 °F (182 °C), and 500 °F (260 °C) ⁵ G - 135 °F (57 °C), 155 °F (68 °C), 175 °F (79 °C), and 200 °F (93 °C)				Approved Finishes 1 - Brass, Chrome, White Polyester ⁴ , and Black Polyester ⁴ 2 - Wax-Coated Brass (corrosion resistant) 3 - High Temperature 200 °F (93 °C) Wax Coating (corrosion resistant); maximum ambient temperature allowed at ceiling = 150 °F (65 °C) 4 - Wax-Coated Brass and Wax Over Polyester ⁵ 5 - White Polyester and Wax-Coated Brass (corrosion resistant) 6- ENT ⁶				
Footnotes ¹ Base part number is shown. For complete part number, refer to Viking's current price schedule. ² 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. ³ This table shows the listings and approvals available at the time of printing. Check with the manufacturer for any additional approvals. ⁴ Other colors are available on request with the same Approvals as the standard colors. ⁵ Sprinklers of Ultra-High temperature rating are intended for use inside ovens, dryers, or similar enclosures with normal operating temperatures above 300 °F (149 °C). Where the ambient temperature around the Ultra-High temperature rated sprinkler is significantly reduced below 300 °F (149 °C), the response time of the Ultra-High temperature rated sprinkler may be severely retarded. ⁶ FM approved as corrosion resistant.								

DESIGN CRITERIA - FM

(Also refer to Approval Chart 2.)

FM Approval Requirements:

The Viking Micromatic® Standard Response Upright Sprinkler VK100 is FM Approved as standard response **Non-Storage** upright sprinkler as indicated in the FM Approval Guide. For specific application and installation requirements, reference the latest applicable FM Loss Prevention Data Sheets (including Data Sheet 2-0). FM Global Loss Prevention Data Sheets contain guidelines relating to, but not limited to: minimum water supply requirements, hydraulic design, ceiling slope and obstructions, minimum and maximum allowable spacing, and deflector distance below the ceiling.

NOTE: The FM installation guidelines may differ from cULus and/or NFPA criteria.

IMPORTANT: Always refer to Bulletin Form No. F_091699 - Care and Handling of Sprinklers. Also refer to page SR1-3 for general care, installation, and maintenance information. Viking sprinklers are to be installed in accordance with the latest edition of Viking technical data, the appropriate standards of NFPA, FM Global, LPCB, APSAD, VdS or other similar organizations, and also with the provisions of governmental codes, ordinances, and standards, whenever applicable.



TECHNICAL DATA

MICROMATIC® STANDARD RESPONSE UPRIGHT SPRINKLER VK100 (K5.6)

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058

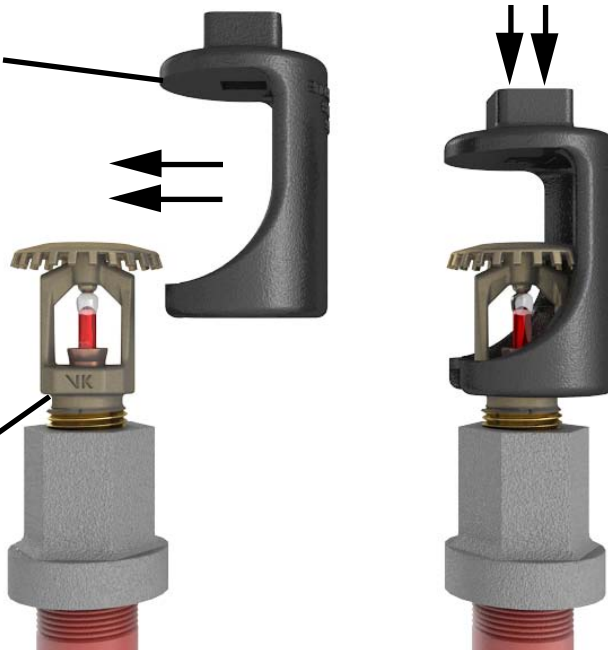
Telephone: 269-945-9501 Technical Services: 877-384-5464 Fax: 269-818-1680 Email: techsvcs@vikingcorp.com

Visit the Viking website for the latest edition of this technical data page: www.vikinggroupinc.com

Sprinkler wrench 13577W/B**
must be used for installing
wax coated sprinklers.

Step 1: Carefully slide the
wrench sideways around the
deflector, ensuring engage-
ment with the sprinkler
wrench flats.

Wax Coated
Upright Sprinkler



** A 1/2" ratchet is required
(not available from Viking)

Step 2: Carefully press the wrench downward
and ensure engagement with the sprinkler
wrench flats.

Figure 2: Socket Wrench 13577W/B for Wax Coated Sprinklers



TECHNICAL DATA

MICROMATIC® STANDARD RESPONSE HORIZONTAL SIDEWALL SPRINKLER VK104 (K5.6)

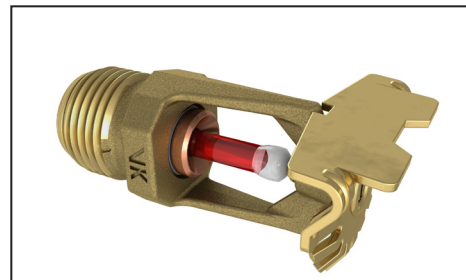
The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058

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1. DESCRIPTION

The Micromatic® Viking Standard Response Horizontal Sidewall Sprinkler VK104 is a small thermosensitive glass bulb spray sprinkler available with various finishes and temperature ratings to meet design requirements. The special Polyester and PTFE coatings can be used in decorative applications where colors are desired. In addition, these coatings have been investigated for installation in corrosive atmospheres and are cULus listed as corrosion resistant as indicated in the Approval Chart. (Note: FM Global has no approval classification for PTFE and Polyester coatings as corrosion resistant.)



Horizontal Sidewall

2. LISTINGS AND APPROVALS

cULus Listed: Category VNIV



FM Approved: Class Series 2000



LPCB Approved: Certificate 096e/06



CE Certified: Standard EN 12259-1, EC-certificate of constancy of performance 0832-CPR-S0021, EC-Certificate of Conformity 0832-CPD-2001



CCC Approved: Approved by the China Certification Center for Fire Products (CCC)



MED Certified: Standard EN 12259-1, EC-certificate 0832-MED-1003

NOTE: Other international approval certificates are available upon request.

Refer to Approval Charts and Design Criteria in this data page for Listing and Approval requirements that must be followed.

For Light Hazard Occupancies Only



WARNING: Cancer and Reproductive Harm
www.P65Warnings.ca.gov

3. TECHNICAL DATA

Specifications:

Minimum Operating Pressure: 7 psi (0.5 bar)
Rated to 175 psi (12 bar) water working pressure
Factory tested hydrostatically to 500 psi (34.5 bar)
Nominal K-Factor: 5.6 U.S. (80.6 metric*)

* Metric K-factor measurement shown is when pressure is measured in Bar. When pressure is measured in kPa, divide the metric K-factor shown by 10.0.

Glass-bulb fluid temperature rated to -65 °F (-55 °C)
Overall Length: 2-1/2" (64 mm)

Material Standards:

Frame Casting: Brass UNS-C84400 or QM Brass
Deflector: Copper UNS-C19500
Bulb: Glass, nominal 5 mm diameter
Belleville Spring Sealing Assembly: Nickel Alloy, coated on both sides with PTFE Tape
Screw: Brass UNS-C36000
Pip Cap and Insert Assembly: Copper UNS-C11000 and Stainless Steel UNS-S30400.
For PTFE Coated Sprinklers: Belleville Spring-Exposed, Screw-Nickel Plated, Pip Cap-PTFE Coated
For Polyester Coated Sprinklers: Belleville Spring-Exposed

Ordering Information: (Also refer to the current Viking price list.)

Order Standard Response Sidewall Sprinklers by first adding the appropriate suffix for the sprinkler finish and then the appropriate suffix for the temperature rating to the sprinkler base part number.

Finish Suffix: Brass = A, Chrome = F, White Polyester = M-W, Black Polyester = M-B, and Black PTFE = N, Wax Coated = C, Wax Over Polyester = V-W

Temperature Suffix: 135 °F / 57 °C = A, 155 °F / 68 °C = B, 175 °F / 79 °C = D, 200 °F / 93 °C = E, 286 °F / 141 °F = G, 360 °F / 182 °C = H

For example, sprinkler VK104 with a 1/2" thread, Brass finish and a 155 °F / 68 °C temperature rating = Part No. 12995AB



TECHNICAL DATA

MICROMATIC® STANDARD RESPONSE HORIZONTAL SIDEWALL SPRINKLER VK104 (K5.6)

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058

Telephone: 269-945-9501 Technical Services: 877-384-5464 Fax: 269-818-1680 Email: techsvcs@vikingcorp.com

Visit the Viking website for the latest edition of this technical data page www.vikinggroupinc.com

Available Finishes And Temperature Ratings: Refer to Table 1.

Accessories: (Also refer to the Viking website.)

Sprinkler Wrenches:

A. Standard Wrench: Part No. 10896W/B (available since 2000).

B. Wrench for recessed sprinklers with protective shields: Part No. 13655W/B** (available since 2003)

C. Wrench for wax coated sprinklers: Part No. 13577W/B** (available since 2006)

**A 1/2" ratchet is required (not available from Viking).

Sprinkler Cabinets:

A. Six-head capacity: Part No. 01724A (available since 1971)

B. Twelve-head capacity: Part No. 01725A (available since 1971)

4. INSTALLATION

Refer to appropriate NFPA Installation Standards.

5. 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 flowing through the sprinkler orifice strikes the sprinkler deflector, forming a uniform spray pattern to extinguish or control the fire.

6. INSPECTIONS, TESTS AND MAINTENANCE

Refer to NFPA 25 for Inspection, Testing and Maintenance requirements.

7. AVAILABILITY

The Micromatic® Viking Standard Response Horizontal Sidewall Sprinkler VK104 is available through a network of domestic and international distributors. See The Viking Corporation web site for the closest distributor or contact The Viking Corporation.

8. GUARANTEE

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

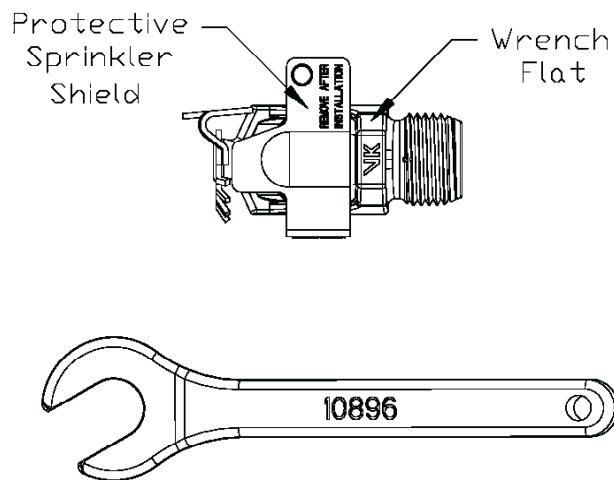


Figure 1:
Standard Sprinkler Wrench 10896W/B

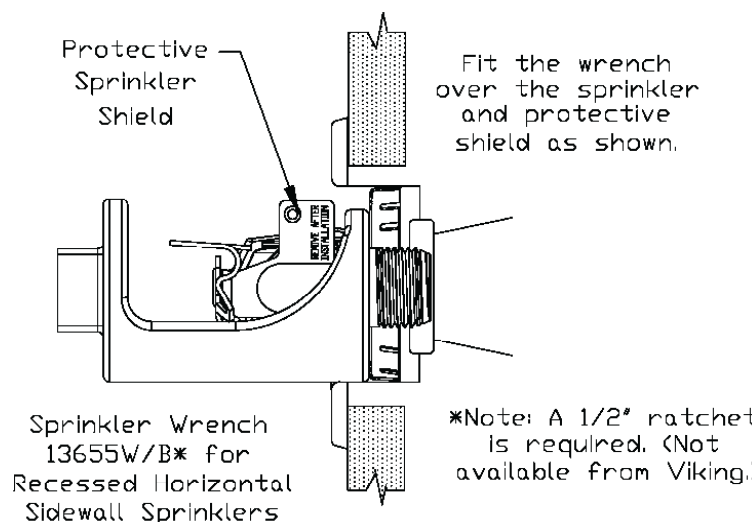


Figure 2:
Wrench 13655W/B for Recessed Horizontal Sidewall Sprinklers



TECHNICAL DATA

MICROMATIC® STANDARD RESPONSE HORIZONTAL SIDEWALL SPRINKLER VK104 (K5.6)

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058
 Telephone: 269-945-9501 Technical Services: 877-384-5464 Fax: 269-818-1680 Email: techsvcs@vikingcorp.com
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TABLE 1: AVAILABLE SPRINKLER TEMPERATURE RATINGS AND FINISHES

Sprinkler Temperature Classification	Sprinkler Nominal Temperature Rating ¹	Maximum Ambient Ceiling Temperature ²	Bulb Color
Ordinary	135 °F (57 °C)	100 °F (38 °C)	Orange
Ordinary	155 °F (68 °C)	100 °F (38 °C)	Red
Intermediate	175 °F (79 °C)	150 °F (65 °C)	Yellow
Intermediate	200 °F (93 °C)	150 °F (65 °C)	Green
High	286 °F (141 °C)	225 °F (107 °C)	Blue
Extra High	360 °F (182 °C)	300 °F (149 °C)	Mauve

Sprinkler Finishes: Brass, Chrome, White Polyester, Black Polyester, and Black PTFE

Corrosion-Resistant Coatings³: White Polyester, Black Polyester, and Black PTFE in all temperature ratings. Wax-Coated Brass and Wax over Polyester for sprinklers with the following temperature ratings:

- 155 °F (68 °C) Lt. Brown Wax
- 175 °F (79 °C) Brown Wax
- 200 °F (93 °C) Brown Wax
- 286 °F (141 °C) Dk. Brown Wax⁴

Footnotes

¹ The sprinkler temperature rating is stamped on the deflector.

² Based on NFPA-13. Other limits may apply, depending on fire loading, sprinkler location, and other requirements of the Authority Having Jurisdiction. Refer to specific installation standards.

³ The corrosion-resistant coatings have passed the standard corrosion test required by the approving agencies indicated in the Approval Chart. These tests cannot and do not represent all possible corrosive environments. Prior to installation, verify through the end-user that the coatings are compatible with or suitable for the proposed environment. For automatic sprinklers, the coatings indicated are applied to the exposed exterior surfaces only. Note that the spring is exposed on sprinklers with Polyester and PTFE coatings. For PTFE coated open sprinklers only, the waterway is coated.

⁴ Wax melting point is 170 °F (76 °C) for 286 °F (141 °C) temperature rated sprinklers.



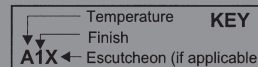
TECHNICAL DATA



MICROMATIC® STANDARD RESPONSE HORIZONTAL SIDEWALL SPRINKLER VK104 (K5.6)

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Approval Chart 1 (UL)

Micromatic® Viking Standard Response Horizontal Sidewall Sprinkler VK104
 For Light Hazard Occupancies Only
 Maximum 175 PSI (12 Bar) WWP



Base Part Number ¹	SIN	Sprinkler Style	Thread Size		Nominal K-Factor		Overall Length		Listings and Approvals ³ (Refer also to Design Criteria.)				
			NPT	BSP	U.S.	metric ²	Inches	mm	cULus ^{4,5}	LPCB	CE		
Horizontal Sidewall													
12995	VK104	HSW	1/2"	15 mm	5.6	80.6	2-1/2	64	A1Z, B1X, B2X	A3Z, B2Z	C3Z ⁸	C3 ⁹	--
12988	VK104	HSW	--	15 mm	5.6	80.6	2-1/2	64	A1Z, B1X, B2X	A3Z, B2Z	C3Z ⁸	C3 ⁹	--
19777	VK104	HSW	1/2"	--	5.6	80.6	2-1/2	64	--	--	--	--	D4
20230	VK104	HSW	--	15 mm	5.6	80.6	2-1/2	64	--	--	--	--	D4
NOTICE - Product Below - Limited Availability (Contact Local Viking Office)													
10224	VK104	HSW	1/2"	15 mm	5.6	80.6	2-1/2	64	B2W, B1W, A1X	A3Z	C3Z ⁸	C3 ⁹	C3Z
10171	VK104	HSW	--	15 mm	5.6	80.6	2-1/2	64	B2W, B1W, A1X	A3Z	C3Z ⁸	C3 ⁹	C3Z
Approved Temperature Ratings				Approved Finishes 1 - Brass, Chrome, White Polyester ^{6,7} , Black Polyester ^{6,7} , and Black PTFE ⁶ 2 - Wax-Coated Brass and Wax Over Polyester (corrosion resistant) 3 - Brass, Chrome, White Polyester ⁶ , and Black Polyester ⁶ 4 - Chrome					Approved Escutcheons W - Installed with standard surface-mounted escutcheons or recessed with the Viking Micromatic® Model E-1, E-2, E-3, or Model G-1 Recessed Escutcheon X - Installed with standard surface-mounted escutcheons, or recessed with the Viking Micromatic® Model E-1, E-2, or E-3 Recessed Escutcheon Z - Installed with standard surface-mounted escutcheons only.				
A - 135 °F (57 °C), 155 °F (68 °C), 175 °F (79 °C), 200 °F (93 °C), 286 °F (141 °C), and 360 °F (182 °C) B - 135 °F (57 °C), 155 °F (68 °C), 175 °F (79 °C), and 200 °F (93 °C) C - 155 °F (68 °C), 175 °F (79 °C), 200 °F (93 °C), 286 °F (141 °C), and 360 °F (182 °C) D - 155 °F (68 °C)													
Footnotes													
¹ Base part number shown. For complete part number, refer to Viking's current price schedule.													
² Metric K-factor measurement shown is when pressure is measured in Bar. When pressure is measured in kPa, divide the metric K-factor shown by 10.0.													
³ This table shows the listings and approvals available at the time of printing. Other approvals may be in process.													
⁴ Listings and Approvals are limited to Light Hazard Occupancies where allowed by the installation standards being applied.													
⁵ Listed by Underwriters Laboratories Inc. for use in the U.S. and Canada.													
⁶ cULus Listed as corrosion-resistant.													
⁷ Other colors are available on request with the same Listings and Approvals as the standard colors.													
⁸ Certified, Standard EN 12259-1, EC-certificate of constancy of performance 0832-CPR-S0021, and EC-Certificate of Conformity 0832-CPD-2001													
⁹ MED Certified, Standard EN 12259-1; EC-certificate 0832-MED-1003.													



TECHNICAL DATA

MICROMATIC® STANDARD RESPONSE HORIZONTAL SIDEWALL SPRINKLER VK104 (K5.6)

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058
 Telephone: 269-945-9501 Technical Services: 877-384-5464 Fax: 269-818-1680 Email: techsvcs@vikingcorp.com
 Visit the Viking website for the latest edition of this technical data page www.vikinggroupinc.com

DESIGN CRITERIA - UL

(Also refer to Approval Chart 1 above.)

cULus Listing Requirements:

The Micromatic® Viking Standard Response Horizontal Sidewall Sprinkler VK104 is cULus Listed as indicated in the Approval Chart for installation in accordance with the latest edition of NFPA 13 for sidewall standard spray sprinklers.

- For use in Light Hazard occupancies only where allowed by the installation standards being applied.
- Locate the deflector 4" to 12" (102 mm to 305 mm) below the ceiling.
- Protection areas and maximum spacing shall be in accordance with the tables provided in NFPA 13.
- Minimum spacing allowed is 6 ft. (1.8 m).
- Align the top of the deflector parallel with the ceiling.
- Locate no less than 4" (102 mm) from end walls.
- Maximum distance from end walls shall be no more than one-half of the allowable distance between sprinklers. The distance shall be measured perpendicular to the wall.
- The sprinkler installation and obstruction rules contained in NFPA 13 for sidewall standard spray sprinklers must be followed.

IMPORTANT: Always refer to Bulletin Form No. F_091699 - Care and Handling of Sprinklers. Also refer to Form No. F_080614 for general care, installation, and maintenance information. Viking sprinklers are to be installed in accordance with the latest edition of Viking technical data, the appropriate standards of NFPA, LPCB, APSAD, VdS or other similar organizations, and also with the provisions of governmental codes, ordinances, and standards, whenever applicable.

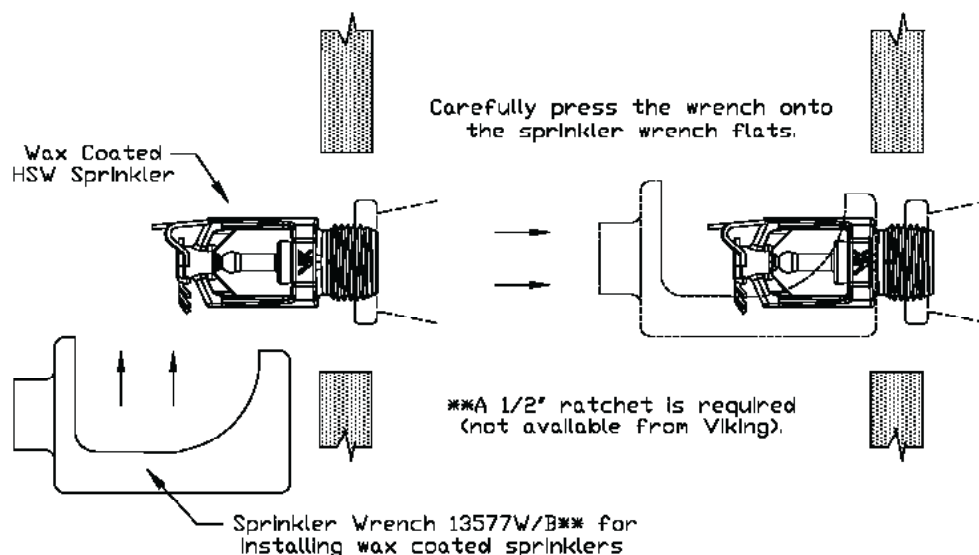


Figure 3: Wrench 13577W/B for Wax Coated Sprinklers



TECHNICAL DATA

MICROMATIC® STANDARD RESPONSE HORIZONTAL SIDEWALL SPRINKLER VK104 (K5.6)

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058
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Approval Chart 2 (FM)

Micromatic® Viking Standard Response Horizontal Sidewall Sprinkler VK104
 Maximum 175 PSI (12 Bar) WWP

	Temperature	KEY
↓	Finish	
←	Escutcheon (if applicable)	
A1X		

Base Part Number ¹	SIN	Sprinkler Style	Thread Size		Nominal K-Factor		Overall Length		FM Approvals ^{3,4} (Refer also to Design Criteria.)
			NPT	BSP	U.S.	metric ²	Inches	mm	
Horizontal Sidewall									
12995	VK104	HSW	1/2"	15 mm	5.6	80.6	2-1/2	64	A1Y, B1X
12988	VK104	HSW	--	15 mm	5.6	80.6	2-1/2	64	A1Y, B1X
NOTICE - Product Below - Limited Availability (Contact Local Viking Office)									
10224	VK104	HSW	1/2"	15 mm	5.6	80.6	2-1/2	64	A1Y, B1X
10171	VK104	HSW	--	15 mm	5.6	80.6	2-1/2	64	A1Y, B1X
Approved Temperature Ratings A - 135 °F (57 °C), 155 °F (68 °C), 175 °F (79 °C), 200 °F (93 °C), and 286 °F (141 °C) B - 135 °F (57 °C), 155 °F (68 °C), 175 °F (79 °C), and 200 °F (93 °C)				Approved Finishes 1 - Brass and Chrome			Approved Escutcheons X - Installed with standard surface-mounted escutcheons, the Viking Microfast® Model F-1 Adjustable Escutcheon, or recessed with the Viking Micromatic® Model E-1, E-2, E-3, or G-1 Recessed Escutcheon Y - Installed with standard surface-mounted escutcheons or the Viking Microfast® Model F-1 Adjustable Escutcheon		

Footnotes

¹ Base part number shown. For complete part number, refer to Viking's current price schedule.

² Metric K-factor measurement shown is when pressure is measured in Bar. When pressure is measured in kPa, divide the metric K-factor shown by 10.0.

³ This table shows the FM Approvals available at the time of printing. Other approvals may be in process.

DESIGN CRITERIA - FM

(Also refer to Approval Chart 2 above.)

FM Approval Requirements:

The Micromatic® Viking Standard Response Horizontal Sidewall Sprinkler VK104 is FM Approved as standard response sidewall **Non-Storage** sprinklers, as indicated in the FM Approval Guide. For specific application and installation requirements, reference the latest applicable FM Loss Prevention Data Sheets (including 2-0) and Technical Advisory Bulletins. FM Global Loss Prevention Data Sheets and Technical Advisory Bulletins contain guidelines relating to, but not limited to: minimum water supply requirements, hydraulic design, ceiling slope and obstructions, minimum and maximum allowable spacing, and deflector distance below the ceiling.

NOTE: The FM installation guidelines may differ from cULus and/or NFPA criteria.

IMPORTANT: Always refer to Bulletin Form No. F_091699 - Care and Handling of Sprinklers. Also refer to Form No. F_080614 for general care, installation, and maintenance information. Viking sprinklers are to be installed in accordance with the latest edition of Viking technical data, the appropriate standards of NFPA, FM Global, LPCB, APSAD, VdS or other similar organizations, and also with the provisions of governmental codes, ordinances, and standards, whenever applicable.



TECHNICAL DATA

MICROMATIC® STANDARD RESPONSE HORIZONTAL SIDEWALL SPRINKLER VK104 (K5.6)

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058
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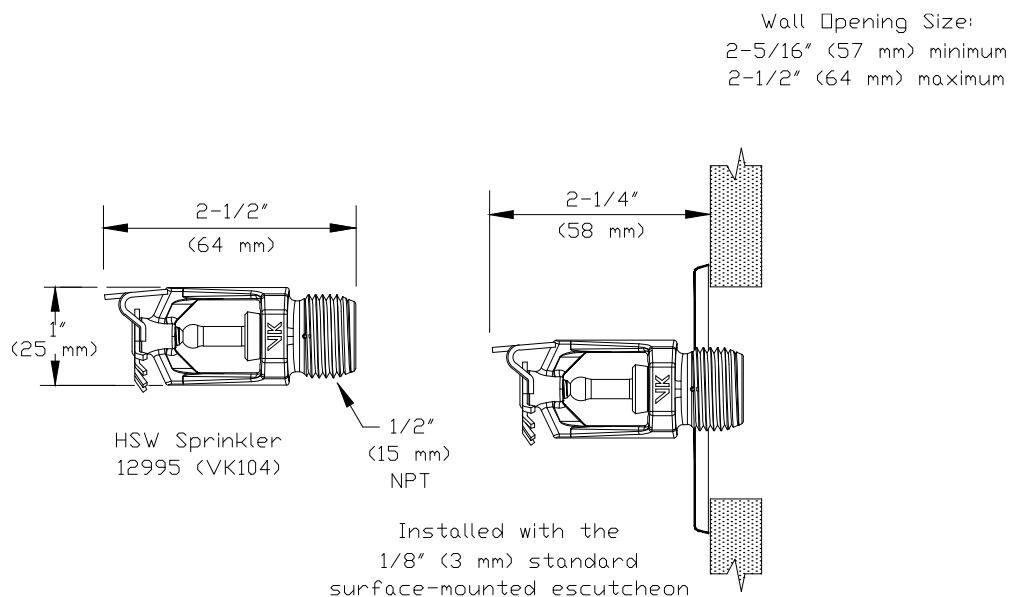


Figure 4: Horizontal Sidewall Sprinkler Dimensions with a Standard Escutcheon

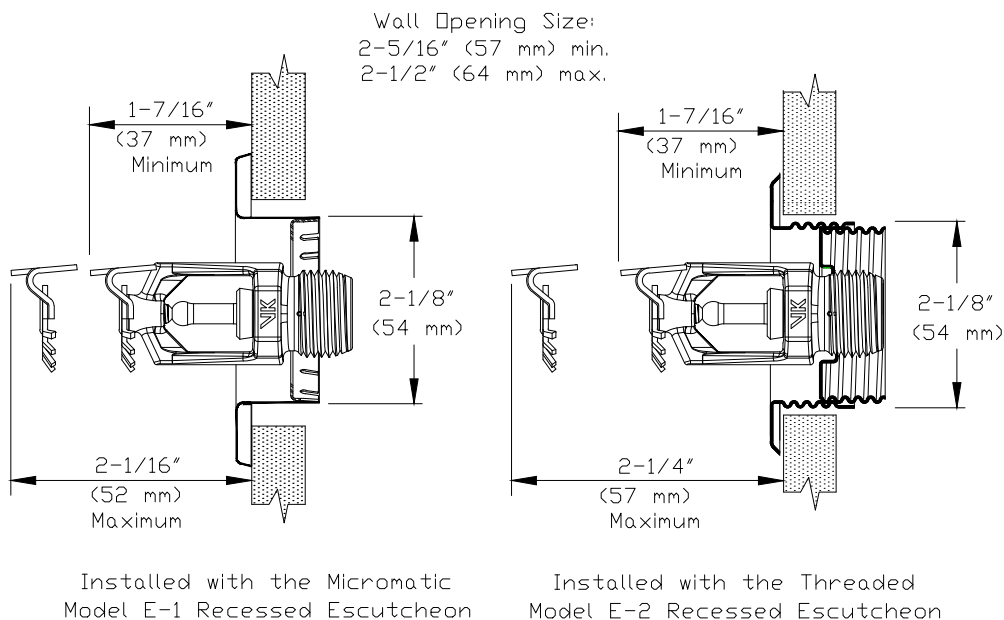


Figure 5: Horizontal Sidewall Sprinkler Dimensions with the Model E-1 and E-2 Recessed Escutcheons



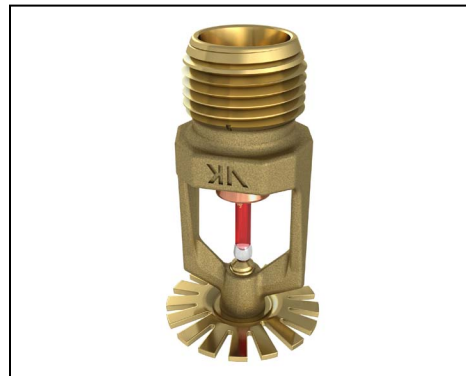
TECHNICAL DATA

MICROFAST® QUICK RESPONSE PENDENT SPRINKLER VK302 (K5.6)

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058
 Telephone: 269-945-9501 Technical Services: 877-384-5464 Fax: 269-818-1680 Email: techsvcs@vikingcorp.com
 Visit the Viking website for the latest edition of this technical data page: www.vikinggroupinc.com

1. DESCRIPTION

The Viking Microfast® Quick Response Pendent Sprinkler VK302 is a small thermo-sensitive glass bulb spray sprinkler available with various finishes and temperature ratings to meet design requirements. The special Polyester and Electroless Nickel PTFE (ENT) coatings can be used in decorative applications where colors are desired. In addition, these coatings have been investigated for installation in corrosive atmospheres and are listed/approved as corrosion resistant as indicated in the Approval Charts. (Note: **FM Global approves ENT finish as corrosion resistant.** FM Global has no approval classification for Polyester coatings as corrosion resistant.)



2. LISTINGS AND APPROVALS



cULus Listed: Category VNIV



FM Approved: Class Series 2000



VdS Approved: Certificates G414009 and G414010



LPCB Approved



CE Certified: Standard EN 12259-1:1999, A3:2006 Certificate of Constancy of Performance 0832-CPR-S0021



CCCF Approved: Approved by the China Certification Center for Fire Products (CCCF)

Refer to Approval Charts and Design Criteria for listing and approval requirements that must be followed.

3. TECHNICAL DATA

Specifications:

Minimum Operating Pressure: 7 psi (0.5 bar)
 Rated to 175 psi (12 bar) water working pressure
 Factory tested hydrostatically to 500 psi (34.5 bar)
 Thread size: 1/2" NPT, 15 mm BSP
 Nominal K-Factor: 5.6 U.S. (80.6 metric**)
 Glass-bulb fluid temperature rated to -65 °F (-55 °C)
 Overall Length: 2-1/4" (58 mm)

*cULus Listing, FM Approval, and NFPA 13 installs require a minimum of 7 psi (0.5 bar). The minimum operating pressure for LPCB and CE Approvals ONLY is 5 psi (0.35 bar).

Material Standards:

Frame Casting: Brass UNS-C84400 or QM Brass
 Deflector: Phosphor Bronze UNS-C51000 or Copper UNS-C19500
 Bulb: Glass, nominal 3 mm diameter
 Belleville Spring Sealing Assembly: Nickel Alloy, coated on both sides with PTFE Tape
 Screw: Brass UNS-C36000
 Pip Cap and Insert Assembly: Copper UNS-C11000 and Stainless Steel UNS-S30400
For Polyester Coated Sprinklers: Belleville Spring-Exposed
For ENT Coated Sprinklers: Belleville Spring-Exposed, Screw and Pipcap - ENT plated.

Ordering Information:

(Also refer to the current Viking price list.)

Order Quick Response Pendent Sprinklers by first adding the appropriate suffix for the sprinkler finish and then the appropriate suffix for the temperature rating to the sprinkler base part number.

Finish Suffix: Brass = A, Chrome = F, White Polyester = M-/W, Black Polyester = M-/B, and ENT = JN

Temperature Suffix: 135 °F (57 °C) = A, 155 °F (68 °C) = B, 175 °F (79 °C) = D, 200 °F (93 °C) = E, 286 °F (141 °C) = G

For example, sprinkler VK302 with a Brass finish and a 155 °F (68 °C) temperature rating = Part No. 12979AB

Available Finishes And Temperature Ratings: Refer to Table 1.

Accessories: (Also refer to the current Viking price list.)



TECHNICAL DATA

MICROFAST® QUICK RESPONSE PENDENT SPRINKLER VK302 (K5.6)

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058

Telephone: 269-945-9501 Technical Services: 877-384-5464 Fax: 269-818-1680 Email: techsvcs@vikingcorp.com

Visit the Viking website for the latest edition of this technical data page: www.vikinggroupinc.com

Sprinkler Wrenches:

- A. Standard Wrench: Part No. 21475M/B (available since 2017).
- B. Wrench for Recessed Pendent Sprinklers: Part No. 13655W/B** (available since 2006)
- C. Optional Protective Sprinkler Cap Remover/Escutcheon Installer Tool*** Part No. 15915 (available since 2010)

**A ½" ratchet is required (not available from Viking).

***Allows use from the floor by attaching a length of 1" diameter CPVC tubing to the tool. Ideal for sprinkler cabinets. Refer to Bulletin F_051808.

Sprinkler Cabinets:

- A. Six-head capacity: Part No. 01724A (available since 1971)
- B. Twelve-head capacity: Part No. 01725A (available since 1971)

4. INSTALLATION

Refer to appropriate NFPA Installation Standards.

5. 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 flowing through the sprinkler orifice strikes the sprinkler deflector, forming a uniform spray pattern to extinguish or control the fire.

6. INSPECTIONS, TESTS AND MAINTENANCE

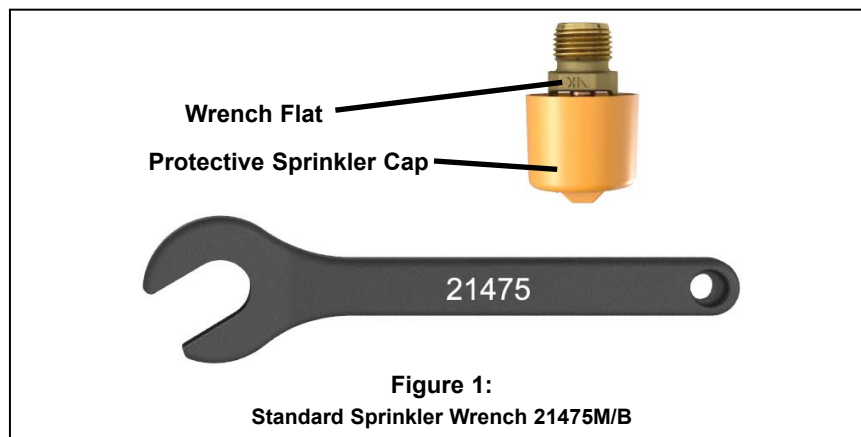
Refer to NFPA 25 for Inspection, Testing and Maintenance requirements.

7. AVAILABILITY

The Viking Microfast® Quick Response Pendent Sprinkler VK302 is available through a network of domestic and international distributors. See The Viking Corporation web site for the closest distributor or contact The Viking Corporation.

8. GUARANTEE

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





TECHNICAL DATA

MICROFAST® QUICK RESPONSE PENDENT SPRINKLER VK302 (K5.6)

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058
 Telephone: 269-945-9501 Technical Services: 877-384-5464 Fax: 269-818-1680 Email: techsvcs@vikingcorp.com
 Visit the Viking website for the latest edition of this technical data page: www.vikinggroupinc.com

TABLE 1: AVAILABLE SPRINKLER TEMPERATURE RATINGS AND FINISHES

Sprinkler Temperature Classification	Sprinkler Nominal Temperature Rating ¹	Maximum Ambient Ceiling Temperature ²	Bulb Color
Ordinary	135 °F (57 °C)	100 °F (38 °C)	Orange
Ordinary	155 °F (68 °C)	100 °F (38 °C)	Red
Intermediate	175 °F (79 °C)	150 °F (65 °C)	Yellow
Intermediate	200 °F (93 °C)	150 °F (65 °C)	Green
High	286 °F (141 °C)	225 °F (107 °C)	Blue

Sprinkler Finishes: Brass, Chrome, White Polyester, Black Polyester, and ENT

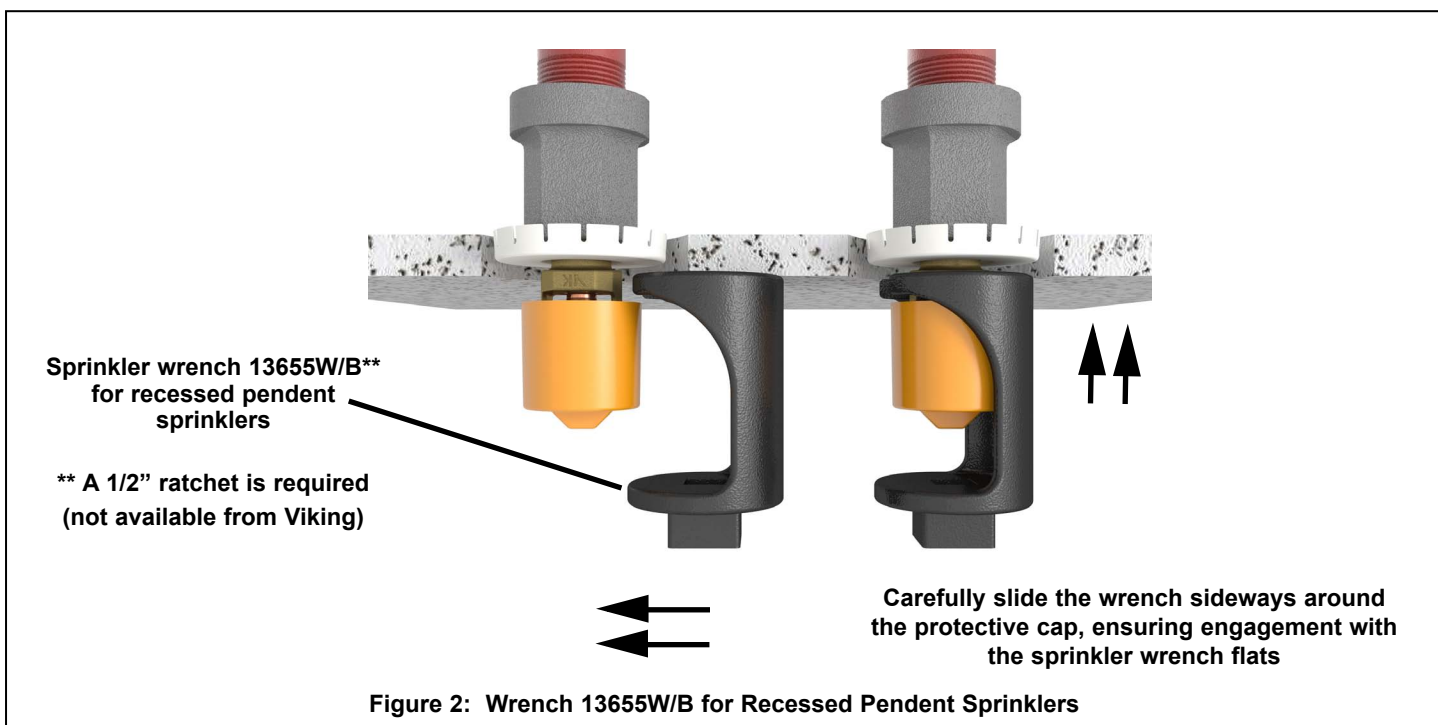
Corrosion-Resistant Coatings³: White Polyester, and Black Polyester. ENT in all temperature ratings except 135 °F (57 °C)

Footnotes

¹ The sprinkler temperature rating is stamped on the deflector.

² Based on NFPA-13. Other limits may apply, depending on fire loading, sprinkler location, and other requirements of the Authority Having Jurisdiction. Refer to specific installation standards.

³ The corrosion-resistant coatings have passed the standard corrosion test required by the approving agencies indicated in the Approval Charts. These tests cannot and do not represent all possible corrosive environments. Prior to installation, verify through the end-user that the coatings are compatible with or suitable for the proposed environment. For automatic sprinklers, the coatings indicated are applied to the exposed exterior surfaces only. Note that the spring is exposed on sprinklers with Polyester and ENT coatings. For ENT coated automatic sprinklers, the waterway is coated.



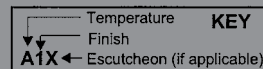


TECHNICAL DATA

MICROFAST® QUICK RESPONSE PENDENT SPRINKLER VK302 (K5.6)

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058
 Telephone: 269-945-9501 Technical Services: 877-384-5464 Fax: 269-818-1680 Email: techsvcs@vikingcorp.com
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Approval Chart 1 (UL) The Viking Microfast® Quick Response Pendent Sprinkler VK302 Maximum 175 PSI (12 Bar) WWP



Base Part Number ¹	SIN	Sprinkler Style	Thread Size		Nominal K-Factor		Overall Length		Listings and Approvals ³ (Refer also to Design Criteria.)					
			NPT	BSP	U.S.	metric ²	Inches	mm	cULus ⁴	VdS	LPCB	CE ⁷		
12979	VK302	Pendent	1/2"	15 mm	5.6	80.6	2-1/4	58	A1Z, B1Y, D2, C2X	A1	A1Z, B1Y	D1Z, C1Y	--	--
19780	VK302	Pendent	1/2"	--	5.6	80.6	2-1/4	58	--	--	--	--	--	D3
21354	VK302	Pendent	--	15 mm	5.6	80.6	2-1/4	58	--	--	--	--	--	D3

NOTICE - Product Below - Limited Availability (Contact Local Viking Office)

06662B	VK302	Pendent	1/2"	15 mm	5.6	80.6	2-1/4	58	A1Z, B1Y, D2, C2X	--	--	--	--	--
18021	VK302	Pendent	1/2"	15 mm	5.6	80.6	2-1/4	58	A1X, B1Y	A1	A1X, B1Y	D1X, C1Y ⁸	D1X, C1Y ⁹	--

Approved Temperature Ratings	Approved Finishes	Approved Escutcheons
A - 135 °F (57 °C), 155 °F (68 °C), 175 °F (79 °C), 200 °F (93 °C), 286 °F (141 °C) B - 135 °F (57 °C), 155 °F (68 °C), 175 °F (79 °C), and 200 °F (93 °C) C - 155 °F (68 °C), 175 °F (79 °C), and 200 °F (93 °C) D - 155 °F (68 °C), 175 °F (79 °C), 200 °F (93 °C), 286 °F (141 °C)	1 - Brass, Chrome, White Polyester ^{5,6} , Black Polyester ^{5,6} 2 - ENT ⁵ 3 - Chrome	X - Standard surface-mounted escutcheon or the Viking Micromatic® Model E-1 Recessed Escutcheon Y - Standard surface-mounted escutcheon or the Viking Microfast® Model F-1 Adjustable Escutcheon, or recessed with the Viking Micromatic® Model E-1, E-2, or E-3 Recessed Escutcheon Z - Standard surface-mounted escutcheon or the Viking Microfast® Model F-1 Adjustable Escutcheon

Footnotes

- ¹ Base part number shown. For complete part number, refer to Viking's current price schedule.
² Metric K-factor measurement shown is when pressure is measured in Bar. When pressure is measured in kPa, divide the metric K-factor shown by 10.0.
³ This table shows the listings and approvals available at the time of printing. Other approvals may be in process.
⁴ Listed by Underwriters Laboratories Inc. for use in the U.S. and Canada.
⁵ cULus Listed as corrosion-resistant.
⁶ Other colors are available on request with the same Listings and Approvals as the standard colors.
⁷ CE Certified, Standard EN 12259-1, EC-certificate of conformity 0832-CPD-2001.
⁸ CE Certified, Standard EN 12259-1, EC-certificates of conformity 0832-CPD-2001 and 0832-CPD-2003.
⁹ MED Certified, Standard EN 12259-1, EC-certificates of conformity 0832-MED-1003 and 0832-MED-1008.

DESIGN CRITERIA - UL (Also refer to Approval Chart 1 above.)

cULus Listing Requirements:

The Viking Microfast® Quick Response Pendent Sprinkler VK302 is cULus Listed as indicated in the Approval Chart for installation in accordance with the latest edition of NFPA 13 for standard spray sprinklers.

- Designed for use in Light and Ordinary occupancies.
- The sprinkler installation rules contained in NFPA 13 for standard spray pendent sprinklers must be followed.

IMPORTANT: Always refer to Bulletin Form No. F_091699 - Care and Handling of Sprinklers. Also refer to Form No. F_080614 for general care, installation, and maintenance information. Viking sprinklers are to be installed in accordance with the latest edition of Viking technical data, the appropriate standards of NFPA, LPCB, APSAD, VdS or other similar organizations, and also with the provisions of governmental codes, ordinances, and standards, whenever applicable.



TECHNICAL DATA

MICROFAST® QUICK RESPONSE PENDENT SPRINKLER VK302 (K5.6)

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058
 Telephone: 269-945-9501 Technical Services: 877-384-5464 Fax: 269-818-1680 Email: techsvcs@vikingcorp.com
 Visit the Viking website for the latest edition of this technical data page: www.vikinggroupinc.com

Approval Chart 2 (FM) The Viking Microfast® Quick Response Pendent Sprinkler VK302 Maximum 175 PSI (12 Bar) WWP

KEY	
Temperature	→
Finish	→
A1X ← Escutcheon (if applicable)	

Base Part Number ¹	SIN	Sprinkler Style	Thread Size		Nominal K-Factor		Overall Length		FM Approvals ³ (Refer also to Design Criteria.)
			NPT	BSP	U.S.	metric ²	Inches	mm	
12979	VK302	Pendent	1/2"	15 mm	5.6	80.6	2-1/4	58	A1Z, B1Y, D2X, C2
NOTICE - Product Below - Limited Availability (Contact Local Viking Office)									
06662B	VK302	Pendent	1/2"	15 mm	5.6	80.6	2-1/4	58	A1Z, B1Y, D2X, C2
18021	VK302	Pendent	1/2"	15 mm	5.6	80.6	2-1/4	58	A1Z, B1Y

Approved Temperature Ratings

A - 135 °F (57 °C), 155 °F (68 °C), 175 °F (79 °C), 200 °F (93 °C), 286 °F (141 °C)
 B - 135 °F (57 °C), 155 °F (68 °C), 175 °F (79 °C), and 200 °F (93 °C)
 C - 155 °F (68 °C), 175 °F (79 °C), 200 °F (93 °C), 286 °F (141 °C)
 D - 155 °F (68 °C), 175 °F (79 °C), 200 °F (93 °C)

Approved Finishes

1 - Brass, Chrome, White Polyester⁴, and Black Polyester⁴
 2 - ENT⁵

Approved Escutcheons

X - Standard surface-mounted escutcheon or the Viking Micromatic® Model E-1 Recessed Escutcheon
 Y - Standard surface-mounted escutcheon or the Viking Microfast® Model F-1 Adjustable Escutcheon, or recessed with the Viking Micromatic® Model E-1 or E-2 Recessed Escutcheon
 Z - Standard surface-mounted escutcheon or the Viking Microfast® Model F-1 Adjustable Escutcheon

Footnotes

¹ Base part number shown. For complete part number, refer to Viking's current price schedule.

² Metric K-factor measurement shown is when pressure is measured in Bar. When pressure is measured in kPa, divide the metric K-factor shown by 10.0.

³ This table shows the FM Approvals available at the time of printing. Other approvals may be in process.

⁴ Other colors are available on request with the same Approvals as the standard colors.

⁵ FM approved as corrosion resistant.

DESIGN CRITERIA - FM

(Also refer to Approval Chart 2 above.)

FM Approval Requirements:

The Viking Microfast® Quick Response Pendent Sprinkler VK302 is FM Approved as quick response **Non-storage** pendent sprinklers as indicated in the FM Approval Guide. For specific application and installation requirements, reference the latest applicable FM Loss Prevention Data Sheets (including Data Sheet 2-0). FM Global Loss Prevention Data Sheets contain guidelines relating to, but not limited to: minimum water supply requirements, hydraulic design, ceiling slope and obstructions, minimum and maximum allowable spacing, and deflector distance below the ceiling.

NOTE: The FM installation guidelines may differ from cULus and/or NFPA criteria.

IMPORTANT: Always refer to Bulletin Form No. F_091699 - Care and Handling of Sprinklers. Also refer to page F_080614 for general care, installation, and maintenance information. Viking sprinklers are to be installed in accordance with the latest edition of Viking technical data, the appropriate standards of NFPA, FM Global, LPCB, APSAD, VdS or other similar organizations, and also with the provisions of governmental codes, ordinances, and standards, whenever applicable.



TECHNICAL DATA

MICROFAST® QUICK RESPONSE PENDENT SPRINKLER VK302 (K5.6)

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058
Telephone: 269-945-9501 Technical Services: 877-384-5464 Fax: 269-818-1680 Email: techsvcs@vikingcorp.com
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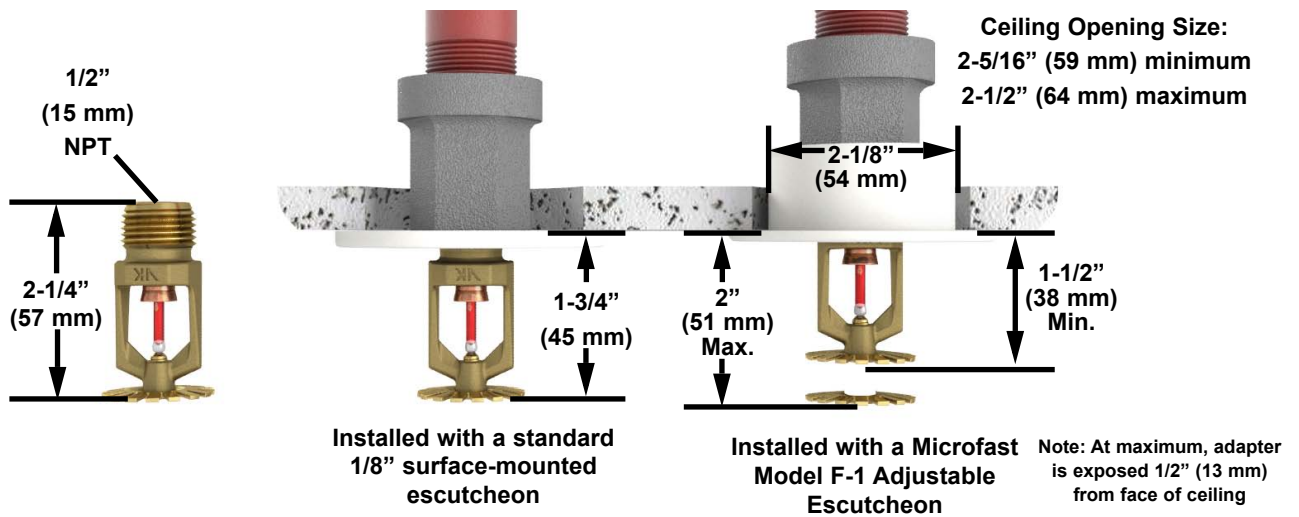


Figure 3: Sprinkler Dimensions with a Standard Escutcheon and the Model F-1 Adjustable Escutcheon

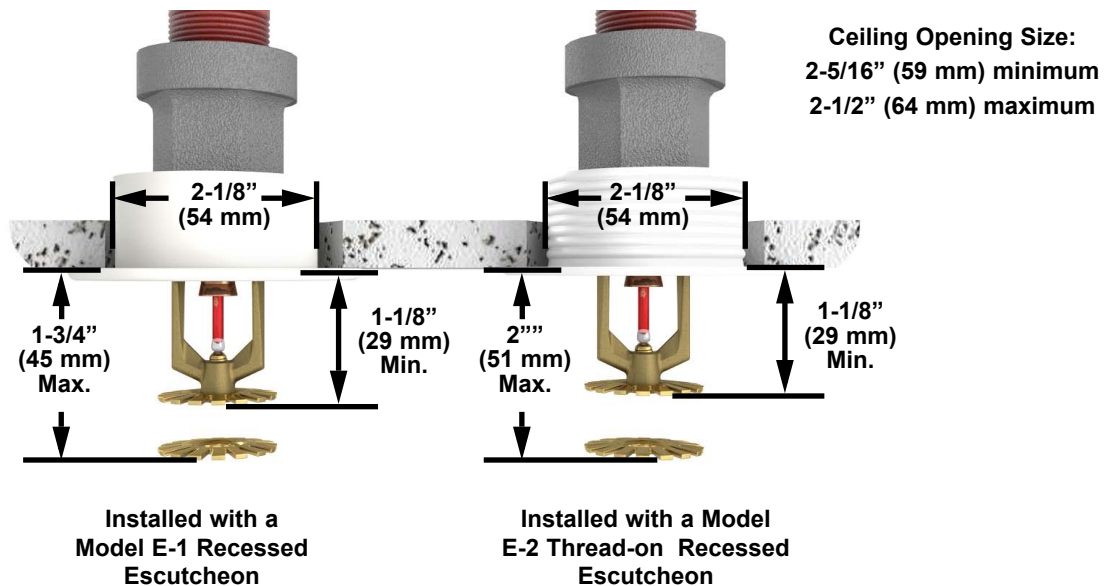


Figure 4: Sprinkler Dimensions with the Model E-1 and E-2 Recessed Escutcheons



TECHNICAL DATA

MICROFAST® QUICK RESPONSE UPRIGHT SPRINKLER VK300 (K5.6)

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058

Telephone: 269-945-9501 Technical Services: 877-384-5464 Fax: 269-818-1680 Email: techsvcs@vikingcorp.com

Visit the Viking website for the latest edition of this technical data page: www.vikinggroupinc.com

1. DESCRIPTION

The Viking Microfast® Quick Response Upright Sprinkler VK300 is a small, thermosensitive, glass-bulb spray sprinkler available in several different finishes and temperature ratings to meet design requirements. The special Polyester and Electroless Nickel PTFE (ENT) coatings can be used in decorative applications where colors are desired. In addition, these coatings have been investigated for installation in corrosive atmospheres and are listed/approved as corrosion resistant as indicated in the Approval Charts. (Note: **FM global approves the ENT coating as corrosion resistant.** FM Global has no approval classification Polyester coatings as corrosion resistant.)



2. LISTINGS AND APPROVALS



cULus Listed: Category VNIV

FM Approved: Classes 2002 and 2020

Refer to Approval Charts and Design Criteria for listing and approval requirements that must be followed.

3. TECHNICAL DATA

Specifications:

Minimum Operating Pressure: 7 psi (0.5 bar)*

Maximum Working Pressure: 175 psi (12 bar) wwp.

Factory tested hydrostatically to 500 psi (34.5 bar)

Testing: U.S.A. Patent No. 4,831,870

Thread size: 1/2" NPT, 15 mm BSP

Nominal K-Factor: 5.6 U.S. (80.6 metric**)

Glass-bulb fluid temperature rated to -65 °F (-55 °C)

Overall Length: 2-3/16" (56 mm)

*cULus Listing, FM Approval, and NFPA 13 installs require a minimum of 7 psi (0.5 bar). The minimum operating pressure for LPCB and CE Approvals ONLY is 5 psi (0.35 bar).

Material Standards:

Frame Casting: Brass UNS-C84400 or QM Brass

Deflector: Brass UNS-C23000 or Copper UNS-C19500

Bulb: Glass, nominal 3 mm diameter

Belleville Spring Sealing Assembly: Nickel Alloy, coated on both sides with PTFE Tape

Screw: Brass UNS-C36000

Pip Cap and Insert Assembly: Copper UNS-C11000 and Stainless Steel UNS-S30400

For Polyester Coated Sprinklers: Belleville Spring-Exposed

For ENT Coated Sprinklers: Belleville Spring-Exposed, Screw and Pipcap - ENT plated

Ordering Information: (Also refer to the current Viking price list.)

Order Viking Microfast® Quick Response Upright Sprinkler VK300 by first adding the appropriate suffix for the sprinkler finish and then the appropriate suffix for the temperature rating to the sprinkler base part number.

Finish Suffix: Brass = A, Chrome = F, White Polyester = M-/W, Black Polyester = M-/B, and ENT = JN

Temperature Suffix (°F/°C): 135°/57° = A, 155°/68° = B, 175°/79° = D, 200°/93° = E, and 286°/141° = G

For example, sprinkler VK300 with a 1/2" NPT thread, Brass finish and a 155 °F/68 °C temperature rating = Part No. 12978AB

Available Finishes And Temperature Ratings: Refer to Table 1.

Accessories: (Also refer to the Viking website.)

Sprinkler Wrench: Standard Wrench: Part No. 21475M/B (available since 2017)

Sprinkler Cabinets:

A. Six-head capacity: Part No. 01724A (available since 1971)

B. Twelve-head capacity: Part No. 01725A (available since 1971)

4. INSTALLATION

Refer to appropriate NFPA Installation Standards.



TECHNICAL DATA

MICROFAST® QUICK RESPONSE UPRIGHT SPRINKLER VK300 (K5.6)

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058

Telephone: 269-945-9501 Technical Services: 877-384-5464 Fax: 269-818-1680 Email: techsvcs@vikingcorp.com

Visit the Viking website for the latest edition of this technical data page: www.vikinggroupinc.com

5. 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 flowing through the sprinkler orifice strikes the sprinkler deflector, forming a uniform spray pattern to extinguish or control the fire.

6. INSPECTIONS, TESTS AND MAINTENANCE

Refer to NFPA 25 for Inspection, Testing and Maintenance requirements.

7. AVAILABILITY

The Viking Microfast® Quick Response Upright Sprinkler VK300 is available through a network of domestic and international distributors. See The Viking Corporation web site for the closest distributor or contact The Viking Corporation.

8. GUARANTEE

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

TABLE 1: AVAILABLE SPRINKLER TEMPERATURE RATINGS AND FINISHES

Sprinkler Temperature Classification	Sprinkler Nominal Temperature Rating ¹	Maximum Ambient Ceiling Temperature ²	Bulb Color
Ordinary	135 °F (57 °C)	100 °F (38 °C)	Orange
Ordinary	155 °F (68 °C)	100 °F (38 °C)	Red
Intermediate	175 °F (79 °C)	150 °F (65 °C)	Yellow
Intermediate	200 °F (93 °C)	150 °F (65 °C)	Green
High	286 °F (141 °C)	225 °F (107 °C)	Blue

Sprinkler Finishes: Brass, Chrome, White Polyester, Black Polyester, and ENT

Corrosion-Resistant Coatings³: White Polyester, Black Polyester, and Black PTFE. ENT in all temperature ratings except 135 °F (57 °C)

Footnotes

¹ The sprinkler temperature rating is stamped on the deflector.

² Based on NFPA-13. Other limits may apply, depending on fire loading, sprinkler location, and other requirements of the Authority Having Jurisdiction. Refer to specific installation standards.

³ The corrosion-resistant coatings have passed the standard corrosion test required by the approving agencies indicated in the Approval Charts. These tests cannot and do not represent all possible corrosive environments. Prior to installation, verify through the end-user that the coatings are compatible with or suitable for the proposed environment. For automatic sprinklers, the coatings indicated are applied to the exposed exterior surfaces only. Note that the spring is exposed on sprinklers with Polyester, ENT, and PTFE coatings. For ENT coated automatic sprinklers, the waterway is coated.

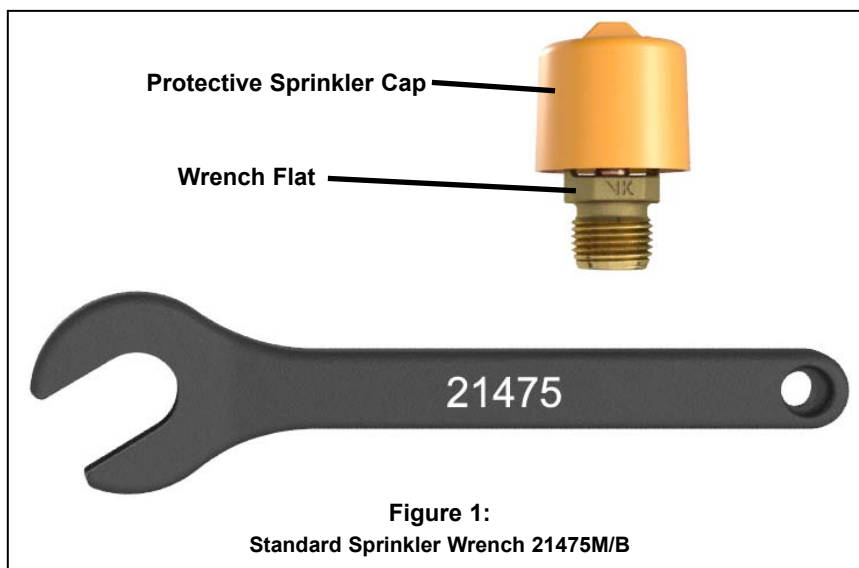


Figure 1:

Standard Sprinkler Wrench 21475M/B



TECHNICAL DATA

MICROFAST® QUICK RESPONSE UPRIGHT SPRINKLER VK300 (K5.6)

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058

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Approval Chart 1 (UL)

Microfast® Quick Response
Upright Sprinkler VK300
Maximum 175 PSI (12 bar) WWP

	Temperature	KEY
↓	Finish	
A1X ←	Escutcheon (if applicable)	

Base Part Number ¹	SIN	Thread Size		Nominal K-Factor		Overall Length		Listings and Approvals ³				
		NPT	BSP	U.S.	metric ²	Inches	mm	cULus	VdS	LPCB	NYC ⁸	CE
12978	VK300	1/2"	15 mm	5.6	80.6	2-3/16	56	A1, B2	--	--	See footnote 7.	--

NOTICE - Product Below - Limited Availability (Contact Local Viking Office)

06661B	VK300	1/2"	15 mm	5.6	80.6	2-3/16	56	A1, B2	--	--	See footnote 7.	--
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Approved Temperature Ratings

A - 135 °F (57 °C), 155 °F (68 °C), 175 °F (79 °C), 200 °F (93 °C), and 286 °F (141 °C)

B - 155 °F (68 °C), 175 °F (79 °C), 200 °F (93 °C), and 286 °F (141 °C)

Approved Finishes

1 - Brass, Chrome, White Polyester^{5,6}, and Black Polyester^{5,6}
2 - ENT⁶

Footnotes

¹ Base part number is shown. For complete part number, refer to Viking's current price schedule.

² Metric K-factor measurement shown is when pressure is measured in Bar. When pressure is measured in kPa, divide the metric K-factor shown by 10.0.

³ This table shows the listings and approvals available at the time of printing. Check with the manufacturer for any additional approvals.

⁴ Listed by Underwriters Laboratories Inc. for us in the U.S. and Canada

⁵ Other colors are available on request with the same Listings and Approvals as the standard colors.

⁶ cULus Listed as corrosion resistant.

⁷ Meets New York City requirements, effective July 1, 2008

⁸ Accepted for use, City of New York Board of Standards and Appeals, Calendar Number 219-76-SA and City of New York Department of Buildings, MEA 89-92-E, Vol. 16.

DESIGN CRITERIA - UL

(Also refer to Approval Chart 1 above.)

cULus Listing Requirements:

The Viking Microfast® Quick Response Upright Sprinkler VK300 is cULus Listed as indicated in Approval Chart 1 for installation in accordance with the latest edition of NFPA 13 for standard spray sprinklers.

- Designed for use in Light and Ordinary Hazard occupancies.
- The sprinkler installation rules contained in NFPA 13 for standard spray upright sprinklers must be followed.

IMPORTANT: Always refer to Bulletin Form No. F_091699 - Care and Handling of Sprinklers. Also refer to Form No. F_080614 for general care, installation, and maintenance information. Viking sprinklers are to be installed in accordance with the latest edition of Viking technical data, the appropriate standards of NFPA, FM Global, LPCB, APSAD, VdS or other similar organizations, and also with the provisions of governmental codes, ordinances, and standards, whenever applicable.



TECHNICAL DATA

MICROFAST® QUICK RESPONSE UPRIGHT SPRINKLER VK300 (K5.6)

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058
 Telephone: 269-945-9501 Technical Services: 877-384-5464 Fax: 269-818-1680 Email: techsvcs@vikingcorp.com
 Visit the Viking website for the latest edition of this technical data page: www.vikinggroupinc.com

Approval Chart 2 (FM)

Microfast® Quick Response
 Upright Sprinkler VK300
 Maximum 175 PSI (12 bar) WWP

	KEY
Temperature	
Finish	
A1X ← Escutcheon (if applicable)	

Base Part Number ¹	SIN	Thread Size		Nominal K-Factor		Overall Length		FM Approvals ³ (Refer also to Design Criteria below.)
		NPT	BSP	U.S.	metric ²	Inches	mm	
12978	VK300	1/2"	15 mm	5.6	80.6	2-3/16	56	A1, B2
NOTICE - Product Below - Limited Availability (Contact Local Viking Office)								
06661B	VK300	1/2"	15 mm	5.6	80.6	2-3/16	56	A1, B2
Approved Temperature Ratings A - 135 °F (57 °C), 155 °F (68 °C), 175 °F (79 °C), 200 °F (93 °C), and 286 °F (141°C) B - 155 °F (68 °C), 175 °F (79 °C), 200 °F (93 °C), and 286 °F (141°C)							Approved Finishes 1 - Brass, Chrome, White Polyester ⁵ , and Black Polyester ⁵ 2 - ENT ⁶	
Footnotes ¹ Base part number is shown. For complete part number, refer to Viking's current price schedule. ² Metric K-factor measurement shown is when pressure is measured in Bar. When pressure is measured in kPa, divide the metric K-factor shown by 10.0. ³ This table shows the FM Approvals available at the time of printing. Check with the manufacturer for any additional approvals. ⁵ Other colors are available on request with the same Approvals as the standard colors. ⁶ FM approved as corrosion resistant.								

DESIGN CRITERIA - FM

(Also refer to Approval Chart 2 above.)

FM Approval Requirements:

The Microfast® Quick Response Upright Sprinkler VK300 is FM Approved as a quick response **Non-Storage** upright sprinkler as indicated in the FM Approval Guide. For specific application and installation requirements, reference the latest applicable FM Loss Prevention Data Sheets (including Data Sheet 2-0). FM Global Loss Prevention Data Sheets contain guidelines relating to, but not limited to: minimum water supply requirements, hydraulic design, ceiling slope and obstructions, minimum and maximum allowable spacing, and deflector distance below the ceiling.

NOTE: The FM installation guidelines may differ from cULus and/or NFPA criteria.

IMPORTANT: Always refer to Bulletin Form No. F_091699 - Care and Handling of Sprinklers. Also refer to Form No. F_080614 for general care, installation, and maintenance information. Viking sprinklers are to be installed in accordance with the latest edition of Viking technical data, the appropriate standards of NFPA, FM Global, LPCB, APSAD, VdS or other similar organizations, and also with the provisions of governmental codes, ordinances, and standards, whenever applicable.



TECHNICAL DATA

MIRAGE® STANDARD AND QR CONCEALED PENDENT SPRINKLER VK462 AND HP SPRINKLER VK463 (K5.6)

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058

Telephone: 269-945-9501 Technical Services: 877-384-5464 Fax: 269-818-1680 Email: techsvcs@vikingcorp.com

Visit the Viking website for the latest edition of this technical data page www.vikinggroupinc.com

1. DESCRIPTION

Viking Mirage® Standard and Quick Response Concealed Pendent Sprinkler VK462 and HP Sprinkler VK463 are thermosensitive glass-bulb spray sprinklers designed for installation on concealed pipe systems where the appearance of a smooth ceiling is desired.

The sprinkler is pre-assembled with a threaded adapter for installation with a low-profile cover assembly that provides up to ½" (12.7 mm) of vertical adjustment. The two-piece design allows installation and testing of the sprinkler prior to installation of the cover plate. The "push-on", "thread-off" design of the concealed cover plate assembly allows easy installation of the cover plate after the system has been tested and the ceiling finish has been applied. The cover assembly can be removed and reinstalled, allowing temporary removal of ceiling panels without taking the sprinkler system out of service or removing the sprinkler. The Electroless Nickel PTFE (ENT) coating has been investigated for installation in corrosive atmospheres and is cULus Listed as corrosion resistant as indicated in the Approval Charts. The ENT finish is only available for the sprinkler assembly, the cover plate is not plated.



2. LISTINGS AND APPROVALS



cULus Listed: Category VNIV



FM Approval: Class 2015



NYC Approved: MEA 89-92-E, Volume 32



VdS Approved: Certificate G4080021



LPCB Approved: Ref. No. 096e/12



CE Certified: Standard EN 12259-1, EC-certificate of conformity 0832-CPD-2032

CCCF Approved: Approved by the China Certification Center for Fire Products (CCCF)

Refer to Approval Chart 1 Design Criteria for cULus Listing requirements, and refer to Approval Chart 2 and Design Criteria on page for FM Approval requirements that must be followed.

3. TECHNICAL DATA

Specifications:

Available since 2006.

Minimum Operating Pressure: 7 psi (0.5 bar)*

Maximum Working Pressure: Sprinkler VK463 is rated for use with water working pressures ranging from the minimum 7 psi (0.5 bar) up to 250 psi (17.2 bar) for high-pressure systems. High-pressure (HP) sprinklers can be identified by locating "250" stamped on the deflector. Sprinkler VK462 is rated to a maximum 175 psi (12 bar) wwp.

Factory tested hydrostatically to 500 psi (34.5 bar)

Thread size: 1/2" (15 mm) NPT

Nominal K-Factor: 5.6 U.S. (80.6 metric†)

Glass-bulb fluid temperature rated to -65°F (-55°C)

Patents Pending

*cULus Listing, FM Approval, and NFPA 13 installs require a minimum of 7 psi (0.5 bar). The minimum operating pressure for LPCB and CE Approvals ONLY is 5 psi (0.35 bar).

†Metric K-factor measurement shown is when pressure is measured in Bar. When pressure is measured in kPa, divide the metric K-factor shown by 10.0.

Material Standards:

Sprinkler Body: Brass UNS-C84400

Deflector: Copper UNS-C19500 for Sprinkler VK462

Phosphor Bronze UNS-C51000 for Sprinkler VK463

Deflector Pins: Stainless Steel Alloy

Bulb: Glass, nominal 3 mm diameter

Pip Cap and Insert Assembly: Copper UNS-C11000 and Stainless Steel UNS-S30400

Button: Brass UNS-C36000

Screws: 18-8 Stainless Steel

Belleville Spring Sealing Assembly: Nickel Alloy, coated on both sides with Teflon Tape



TECHNICAL DATA

MIRAGE® STANDARD AND QR CONCEALED PENDENT SPRINKLER VK462 AND HP SPRINKLER VK463 (K5.6)

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058

Telephone: 269-945-9501 Technical Services: 877-384-5464 Fax: 269-818-1680 Email: techsvcs@vikingcorp.com

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Yoke: Phosphor Bronze UNS-C51000

Cover Adapter: Cold Rolled Steel UNS-G10080, Finish: Clear Chromate over Zinc Plating

Cover Assembly Materials:

Cover: Copper UNS-C11000 or Stainless Steel UNS-S30400

Base: Brass UNS-C26000 or UNS-C26800

Springs: Nickel Alloy

Solder: Eutectic

Ordering Information: (Also refer to the current Viking price list.)

Viking Mirage® Standard and Quick Response Concealed Pendent Sprinklers and Cover Plate Assemblies must be ordered separately:

Sprinkler: Base Part No. VK462 - 13503A for Brass finish and 13503JN for ENT finish. VK463 - HP Base Part No. 13667A

Specify sprinkler temperature rating by adding the appropriate suffix for the temperature rating to the base part number:

Temperature Suffix: 155 °F (68 °C) = B, 175 °F (79 °C) = D, 200 °F (93 °C) = E

For example, sprinkler VK463 with a 155 °F (68 °C) temperature rating = 13667AB.

Standard Cover Plate Assembly: Base Part No. 13504 (2-3/4" diameter), Base Part No. 13642 (3-5/16" diameter), or Base Part No. 15394 (square cover plate, 3-5/16")

Specify finish and temperature rating of the cover plate assembly by adding the appropriate suffixes for the finish and the cover temperature rating to the base part number:

Finish Suffix: Polished Chrome = F, Brushed Chrome = F-/B, Bright Brass = B, Antique Brass = B-/A, Brushed Brass = B-/B, Brushed Copper = E-/B, Painted White = M-/W, Painted Ivory = M-/I, Painted Black = M-/B

Temperature Suffix: 135 °F (57 °C) UL (139 °F (59 °C) FM and LPCB) = A, 165 °F (74 °C) = C

For example, cover 13504 with a Polished Chrome finish and a 165 °F (74 °C) temperature rating = 13504FC.

Stainless Steel Cover Plates (not available with any finish or paint): Base Part No. 21876 (2-3/4" diameter) or Base Part No. 21875 (3-5/16" diameter).

Temperature Suffix: 135 °F (57 °C) UL (139 °F (59 °C) FM and LPCB) = A, 165 °F (74 °C) = C

For example, cover 21876 with a 165 °F (74 °C) temperature rating = 21876C

NOTE: The cULus Listings for the square cover plate 15394 are for the 135 °F (57 °C) temperature rated cover plate only. Refer to the Approval Chart.

Available Finishes And Temperature Ratings: Refer to Table 1.

Accessories: (Also refer to the Viking website.)

Sprinkler Wrenches**:

A. Heavy Duty Wrench Part No. 14047W/B (available since 2006), or

B. Head Cabinet Wrench Part No. 14031*** (available since 2006)

C. Optional Concealed Cover Plate Installer Tool Part No. 14412 for cover 13504, or Part No. 14867 for the large diameter cover (available since 2007)

Requires a 1/2" ratchet (not available from Viking). *Optional for removal of the protective cap. Ideal for sprinkler cabinets.

Sprinkler Cabinet: Part No. 01731A (available since 1971)

4. INSTALLATION

Refer to appropriate NFPA Installation Standards.

5. OPERATION

During fire conditions, when the temperature around the sprinkler approaches its operating temperature, the cover plate detaches. Continued heating of the exposed sprinkler causes the heat-sensitive liquid in the glass bulb to expand and the bulb to shatter, releasing the yoke, pip-cap and sealing spring assembly. Water flowing through the sprinkler orifice strikes the sprinkler deflector, forming a uniform spray pattern to extinguish or control the fire.

6. INSPECTIONS, TESTS AND MAINTENANCE

Refer to NFPA 25 for Inspection, Testing and Maintenance requirements.

7. AVAILABILITY

Viking Sprinklers VK462 and VK463 are available through a network of domestic and international distributors. See The Viking Corporation web site for the closest distributor or contact The Viking Corporation.

8. GUARANTEE

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



TECHNICAL DATA

MIRAGE® STANDARD AND QR CONCEALED PENDENT SPRINKLER VK462 AND HP SPRINKLER VK463 (K5.6)

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058
 Telephone: 269-945-9501 Technical Services: 877-384-5464 Fax: 269-818-1680 Email: techsvcs@vikingcorp.com
 Visit the Viking website for the latest edition of this technical data page www.vikinggroupinc.com

TABLE 1: AVAILABLE SPRINKLER TEMPERATURE RATINGS AND FINISHES

Sprinkler Temperature Classification	Sprinkler Nominal Temperature Rating ¹	Maximum Ambient Ceiling Temperature ²	Temperature Rating of Cover Assembly (Required)	Cover Plate Base Part Number ³	Large Cover Plate Base Part Number ³	Square Cover Plate Base Part Number ³	Bulb Color
Ordinary	155 °F (68° C)	100 °F (38 °C)	135 °F (57 °C) cULus	13504 or 21876 ⁵	13642 or 21875 ⁵	15394	Red
			139 °F (59 °C) FM and LPCB				
Intermediate	175 °F (79° C)	150 °F (65° C)	165 °F (74 °C)	13504 or 21876 ⁵	13642 or 21875 ⁵	15394	Yellow
Intermediate	200 °F (93° C)	150 °F (65° C)	165 °F (74 °C)	13504 or 21876 ⁵	13642 or 21875 ⁵	15394	Green

Cover Plate Finishes⁵: Polished Chrome, Brushed Chrome, Bright Brass, Antique Brass, Brushed Brass, Brushed Copper, Painted White, Painted Ivory, or Painted Black

Sprinkler Finishes: Brass and ENT

Corrosion Resistant Coatings⁴: ENT

Footnotes

¹ The sprinkler temperature rating is stamped on the sprinkler deflector.

² Based on NFPA-13. Other limits may apply, depending on fire loading, sprinkler location, and other requirements of the Authority Having Jurisdiction. Refer to specific installation standards.

³ Part number shown is the base part number. For complete part number, refer to current Viking price list schedule.

⁴ The corrosion resistant coatings have passed the standard corrosion test required by the approving agencies indicated in the Approval Charts. These tests cannot and do not represent all possible corrosive environments. Prior to installation, verify through the end-user that the coatings are compatible with or suitable for the proposed environment. For automatic sprinklers, the ENT coating is applied to all exposed exterior surfaces, including the waterway, but the Belleville spring is exposed.

⁵ Stainless Steel versions are not available with any finishes or paint.



All custom color painted cover plates will have an identifying label affixed to the inside of the cover that indicates the custom color and will have a representative sample (a paint dot) of the paint on the label.

Figure 1: Identification of Custom Paint for Concealed Covers



Figure 2: Square Cover Assembly 15394



TECHNICAL DATA

MIRAGE® STANDARD AND QR CONCEALED PENDENT SPRINKLER VK462 AND HP SPRINKLER VK463 (K5.6)

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Approval Chart 1 (UL)												
Mirage® Concealed Pendent Sprinklers VK462 and VK463												
<div><div><div>Sprinkler Temperature Rating</div><div>Cover Plate Temperature Rating</div><div>AW1</div><div>Cover Plate Finish</div><div>KEY</div></div></div>												
Sprinkler Base Part No. ¹	SIN	Thread Size		Nominal K-Factor		Maximum Water Working Pressure	Listings and Approvals ⁴ (Refer also to Design Criteria)					
		Inch	mm	U.S.	metric ²		cULus ⁵	NYC	VdS ⁷	LPCB	CE	CCC
Standard Response Applications												
13503A	VK462	1/2"	--	5.6	80.6	175 psi (12 bar)	--	--	AY1, CZ1	AY1, BZ1	AY1, CZ1 ⁸	--
19785A	VK462	1/2"	--	5.6	80.6	175 psi (12 bar)	--	--	--	--	--	AY2, CZ2
21356A	VK462	--	15	5.6	80.6	175 psi (12 bar)	--	--	--	--	--	AY2, CZ2
Quick Response Applications												
13503A	VK462	1/2"	15	5.6	80.6	175 psi (12 bar)	AV1, BX1, AS3, BT3	AV1, BX1 ⁶	--	--	--	--
13503JN ¹¹	VK462	1/2"	15	5.6	80.6	175 psi (12 bar)	AV1, BX1, AS3, BT3	AV1, BX1 ⁶	--	--	--	--
13667A	VK463	1/2"	15	5.6	80.6	250 psi (17.2 bar) ³	AV1, BX1	AV1, BX1 ⁶	--	--	--	--
Sprinkler Temperature Ratings A - 155 °F (68 °C) B - 175 °F (79 °C) and 200 °F (93 °C) C - 200 °F (93 °C)		Cover Plate Assembly Temperature Ratings ^{1,9} S - 135 °F (57 °C) cover 21876 or 21875 (large diameter) T - 165 °F (74 °C) cover 21876 or 21875 (large diameter) V - 135 °F (57 °C) cULus Listed cover 13504, 13642 (large diameter), or 15394 (square cover plate) X - 165 °F (74 °C) cover 13504, or 13642 (large diameter) Y - 135 °F (57 °C) cover 13504 <i>LPCB Approved as 139 °F (59 °C)</i> Z - 165 °F (74 °C) cover 13504						Cover Plate Assembly Finishes ¹⁰ 1 - Polished Chrome, Brushed Chrome, Bright Brass, Antique Brass, Brushed Brass, Brushed Copper, Painted White, Painted Ivory, or Painted Black 2 - Brass 3 - Stainless Steel				
Footnotes												
¹ Part number shown is the base part number. For complete part number, refer to current Viking price list schedule.												
² Metric K-factor measurement shown is when pressure is measured in Bar. When pressure is measured in kPa, divide the metric K-factor shown by 10.0.												
³ The Water Working Pressure rating is stamped on the deflector.												
⁴ This chart shows the listings and approvals available at the time of printing. Other approvals may be in process. Check with the manufacturer for any additional approvals.												
⁵ Listed by Underwriter's Laboratories for use in the U.S. and Canada.												
⁶ Accepted for use, City of New York Department of Buildings, MEA Number 89-92-E, Vol. 32.												
⁷ VdS Approved, standards VdS 2344:2005-12, VdS 2100-25:2008-01, and EN 12259-1:1999 + A1:2001 + A2:2004 + A3:2006, Certificate G4080021.												
⁸ CE Certified, Standard EN 12259-1, EC-certificate of conformity 0832-CPD-2032.												
⁹ The 135/139 °F cover has an orange label. The 165 °F (74 °C) cover has a white label.												
¹⁰ Painted finish consists of Polyester Baked Enamel. Other paint colors are available on request with the same listings as the standard paint colors. Listings and approvals apply for any paint manufacturer. Contact Viking for additional information.												
¹¹ cULus Listed as corrosion resistant.												
NOTE: Custom colors are indicated on a label inside the cover assembly. Refer to Figure 1.												



TECHNICAL DATA

MIRAGE® STANDARD AND QR CONCEALED PENDENT SPRINKLER VK462 AND HP SPRINKLER VK463 (K5.6)

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058
 Telephone: 269-945-9501 Technical Services: 877-384-5464 Fax: 269-818-1680 Email: techsvcs@vikingcorp.com
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DESIGN CRITERIA - UL

(Also refer to Approval Chart 1)

cULus Listing Requirements:

Mirage® Concealed Pendent Sprinklers VK462 and VK463 are cULus Listed as quick response for installation in accordance with the latest edition of NFPA 13 for standard coverage pendent spray sprinklers as indicated below.

- For hazard occupancies up to and including Ordinary Hazard, Group II.
- Protection areas and maximum spacing shall be in accordance with the tables provided in NFPA 13. Maximum spacing allowed is 15 ft. (4.6 m).
- Minimum spacing allowed is 6 ft. (1.8 m) unless baffles are installed in accordance with NFPA 13.
- Minimum distance from walls is 4 in. (102 mm).
- Maximum distance from walls shall be no more than one-half of the allowable distance between sprinklers. The distance shall be measured perpendicular to the wall.
- The sprinkler obstruction rules contained in NFPA 13 for standard coverage pendent spray sprinklers must be followed.

NOTE: Concealed sprinklers must be installed in neutral or negative pressure plenums only.

VdS Approval Requirements:

- a) The sprinkler can be installed in a concrete ceiling (massive ceiling) or in a false ceiling made of light materials.
- b) This sprinkler is deflector fixed type and can be only activated by heat. The housing is not tight.
- c) Follow installation guidelines of current standards, CEA4001VdS and EN12845. These sprinklers can only be installed in LH and OH occupancies, except in OH4.

NOTES: Due to the design the sprinkler type 'Domed-CCP' shall not be installed in false ceilings in which the false ceiling space is protected by a water extinguishing system.

Due to the design the sprinkler type 'Domed-CCP' shall not be installed in false ceilings in which during a fire the pressure above the false ceiling may be assumed to be higher than the pressure below the false ceiling.

The criterion for the dropping of the cover relevant for this approval is heat.

Steps of installation:

1. Prepare the sprinkler key.
2. Remove the plastic cover.
3. Hold the sprinkler with the wrench and fasten it.
4. Replace the plastic cover and do not remove until the cover is installed.

IMPORTANT: Always refer to Bulletin Form No. F_091699 - Care and Handling of Sprinklers. Also refer to Form No. F_080614 for general care, installation, and maintenance information. Viking sprinklers are to be installed in accordance with the latest edition of Viking technical data, the appropriate standards of NFPA, LPCB, APSAD, VdS or other similar organizations, and also with the provisions of governmental codes, ordinances, and standards, whenever applicable.



TECHNICAL DATA

MIRAGE® STANDARD AND QR CONCEALED PENDENT SPRINKLER VK462 AND HP SPRINKLER VK463 (K5.6)

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Approval Chart 2 (FM)							<div><div><div></div><div></div><div></div></div><div>Sprinkler Temperature Rating</div></div> <div><div><div></div><div></div><div></div></div><div>Cover Plate Temperature Rating</div></div> <div><div><div></div><div></div><div></div></div><div>AW1</div><div>Cover Plate Finish</div></div> <div><div><div></div><div></div><div></div></div><div>KEY</div></div>
Mirage® Standard Response Concealed Pendent Sprinkler VK462							
Sprinkler Base Part No. ¹	SIN	NPT Thread Size		Nominal K-Factor		Maximum Water Working Pressure	FM Approvals ³ (Refer also to Design Criteria below.)
		Inch	mm	U.S.	metric ²		
13503A	VK462	1/2"	15	5.6	80.6	175 psi (12 bar)	AW1, BX1, AY2, BZ2
Sprinkler Temperature Ratings A - 155 °F (68 °C) B - 175 °F (79 °C) and 200 °F (93 °C)		Cover Plate Assembly Temperature Ratings ^{1, 4} Y - 139 °F (59 °C) cover 21875 or 21876 Z - 165 °F (74 °C) cover 21875 or 21876 W - 139 °F (59 °C) cover 13504, 13642 (large diameter), or 15394 (square cover plate) X - 165 °F (74 °C) cover 13504, 13642 (large diameter), or 15394 (square cover plate)				Cover Plate Assembly Finishes ⁵ 1 - Polished Chrome, Brushed Chrome, Bright Brass, Antique Brass, Brushed Brass, Brushed Copper, Painted White, Painted Ivory, or Painted Black 2 - Stainless Steel	
Footnotes							
¹ Part number shown is the base part number. For complete part number, refer to current Viking price list schedule.							
² Metric K-factor measurement shown is when pressure is measured in Bar. When pressure is measured in kPa, divide the metric K-factor shown by 10.0.							
³ This chart shows the FM Approvals available at the time of printing. Other approvals may be in process. Check with the manufacturer for any additional approvals.							
⁴ The 139 °F (59 °C) cover has an orange label. The 165 °F (74 °C) cover has a white label.							
⁵ Painted finish consists of Polyester Baked Enamel. Other paint colors are available on request with the same listings as the standard paint colors. Listings and approvals apply for any paint manufacturer. Contact Viking for additional information.							
NOTE: Custom colors are indicated on a label inside the cover assembly. Refer to Figure 1.							

DESIGN CRITERIA - FM

(Also refer to Approval Chart 2 above.)

FM Approval Requirements:

Viking Concealed Pendent Sprinkler VK462 is FM Approved as a standard response **Non-Storage** concealed pendent sprinkler as indicated in the FM Approval Guide. For specific application and installation requirements, reference the latest applicable FM Loss Prevention Data Sheets (including Data Sheet 2-0). FM Global Loss Prevention Data Sheets contain guidelines relating to, but not limited to: minimum water supply requirements, hydraulic design, ceiling slope and obstructions, minimum and maximum allowable spacing, and deflector distance below the ceiling.

NOTE: The FM installation guidelines may differ from cULus and/or NFPA criteria.

IMPORTANT: Always refer to Bulletin Form No. F_091699 - Care and Handling of Sprinklers. Also refer to Form No. F_080614 for general care, installation, and maintenance information. Viking sprinklers are to be installed in accordance with the latest edition of Viking technical data, the appropriate standards of NFPA, FM Global, LPCB, APSAD, VdS or other similar organizations, and also with the provisions of governmental codes, ordinances, and standards, whenever applicable.



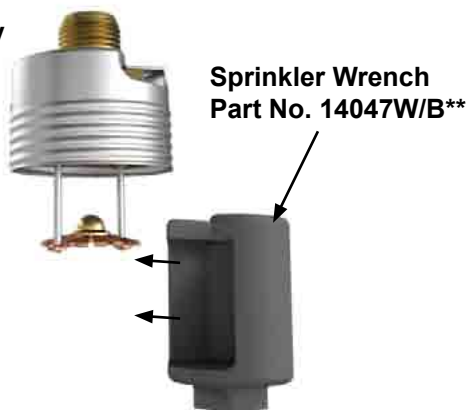
TECHNICAL DATA

MIRAGE® STANDARD AND QR CONCEALED PENDENT SPRINKLER VK462 AND HP SPRINKLER VK463 (K5.6)

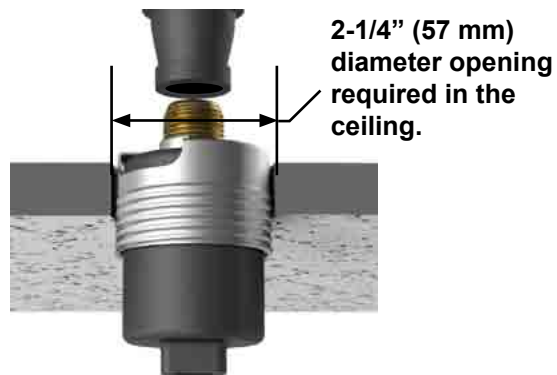
The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058
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Sprinkler and Adapter Assembly

- Protective cap removed
- Use wrench 14047W/B**



Step 1:
Carefully slide the wrench sideways around the deflector and pins



Step 2:
Carefully press the wrench upward and turn slightly to ensure engagement with the sprinkler wrench flats.

NEVER install the sprinkler by applying the installation wrench across the frame arms. **DO NOT** overtighten. Use only the designated sprinkler wrenches, Viking Part Numbers 14047W/B** or 14031**. A leak tight seal should be achieved by turning the sprinkler clockwise 1 to 1-1/2 turns beyond finger tight.

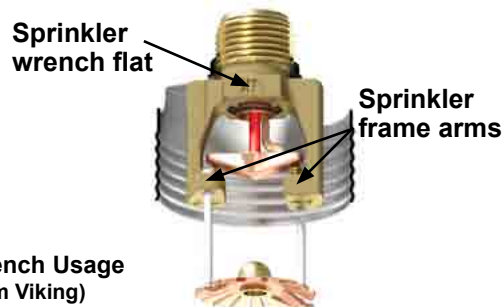


Figure 3: Sprinkler Installation and Proper Wrench Usage
 ** A 1/2" ratchet is required (Not available from Viking)

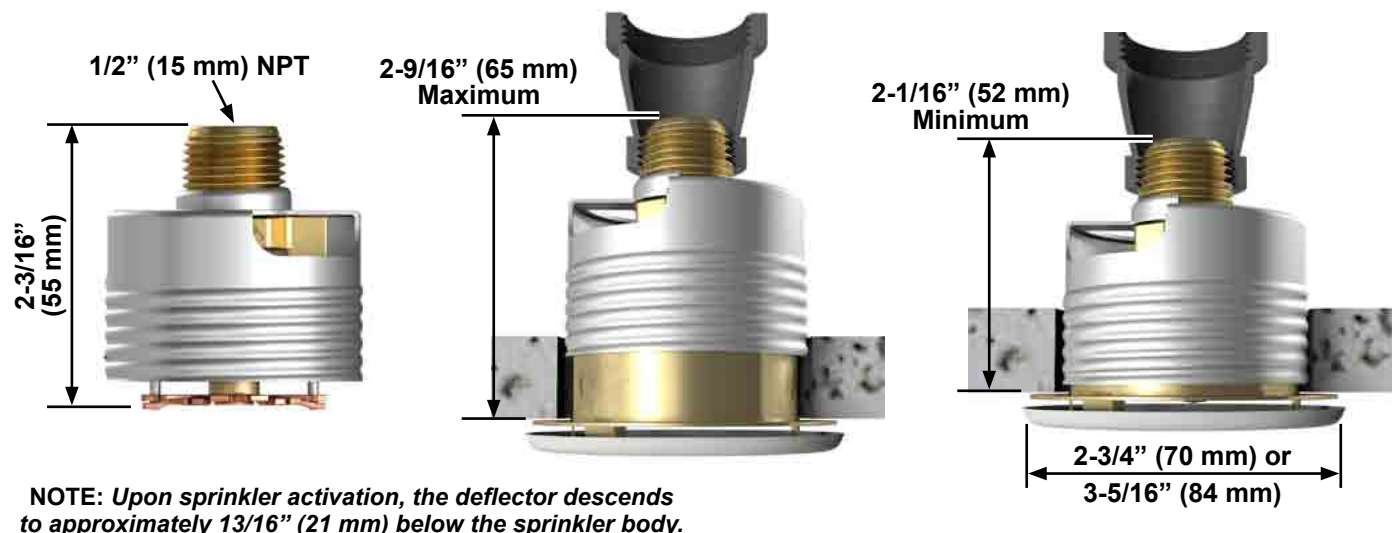
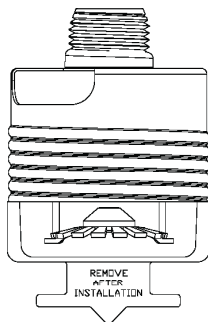


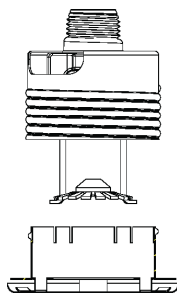
Figure 4: Sprinkler Dimensions and Cover Installation

CAUTION: CONCEALED COVER ASSEMBLIES ARE FRAGILE!
TO ASSURE SATISFACTORY PERFORMANCE OF THE PRODUCT, HANDLE WITH CARE.



Concealed Sprinkler and Adapter Assembly with Protective Cap (Pendent Sprinkler Part No. 13503A-X shown)

Concealed Sprinkler and Adapter Assembly (Protective Cap Removed)



Cover Plate Assembly (Pendent Cover 13504 shown)



Viking Mirage® Concealed Pendent Sprinkler Installed in Acoustical Ceiling

GENERAL HANDLING AND STORAGE INSTRUCTIONS:

- Do not store in temperatures exceeding 100 °F (38 °C). Avoid direct sunlight and confined areas subject to heat.
- Protect sprinklers and cover assemblies during storage, transport, handling, and after installation.
 - Use original shipping containers.
 - Do not place sprinklers or cover assemblies loose in boxes, bins, or buckets.
- Keep the sprinkler bodies covered with the protective sprinkler cap any time the sprinklers are shipped or handled, during testing of the system, and while finish work is being completed.
- Use only the designated Viking sprinkler wrench (refer to the appropriate sprinkler data page) to install these sprinklers. **NOTE:** The protective cap is temporarily removed during installation and then placed back on the sprinkler for protection until finish work is completed.
- Do not over-tighten the sprinklers into fittings during installation.
- Do not use the sprinkler deflector to start or thread the sprinklers into fittings during installation.
- Do not attempt to remove drywall, paint, etc., from the sprinklers.
- Remove the plastic protective cap from the sprinkler before attaching the cover plate assembly. **PROTECTIVE CAPS MUST BE REMOVED FROM SPRINKLERS BEFORE PLACING THE SYSTEM IN SERVICE!**

FOR COMPLETE CARE, HANDLING, & INSTALLATION INSTRUCTIONS, REFER TO THE SPRINKLER DATA PAGE AND THE APPROPRIATE SPRINKLER GENERAL CARE, INSTALLATION, AND MAINTENANCE GUIDE.



TECHNICAL DATA

CONCEALED SPRINKLER COVER PLATE ASSEMBLIES

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058

Telephone: 269-945-9501 Technical Services: 877-384-5464 Fax: 269-818-1680 Email: techsvcs@vikingcorp.com

1. DESCRIPTION

Viking Cover Plates are low-profile covers used with Viking Concealed Sprinklers. The covers are installed flush with the ceiling or wall to provide a smooth appearance, and are available in several [standard decorative finishes](#) to meet design requirements. Viking Cover Plates may also be custom ordered with any color by any paint manufacturer.

2. LISTINGS AND APPROVALS

Refer to the Approval Charts on the applicable Viking Sprinkler Technical Data Pages.

3. TECHNICAL DATA

Specifications:

Refer to the appropriate sprinkler technical page for sprinkler specifications.

Material Standards:

Cover Plate Assembly: Copper UNS-C11000, Brass UNS-C26000 or UNS-C26800

Spring: Nickel Alloy

Solder: Eutectic (non-Eutectic for cover 15765)

Ordering Information: (Also refer to the current Viking price list.)

Refer to Tables 1a, 1b, and 2.

Specify finish and temperature rating of the cover plate assembly by adding the appropriate suffixes for the finish and the cover temperature rating to the base part number:

For example, cover 09804 with a Polished Chrome finish and a 165 °F (74 °C) temperature rating = 09804FC.

Available Finishes And Temperature Ratings:

Refer to Tables 1a, 1b, and 2.

Viking Technical Data may be found on
The Viking Corporation's Web site at
<http://www.vikinggroupinc.com>.
The Web site may include a more recent
edition of this Technical Data Page.

4. INSTALLATION

A. After installation of the Concealed Sprinkler, testing of the system, repairing of all leaks, and installation and painting of the wall or ceiling, the concealed sprinkler cover plate assembly may be attached.

1. Remove the plastic protective cap from the sprinkler.

2. Remove the cover plate assembly from the protective box, taking care not to damage the assembly.

3. Gently place the base of the cover plate assembly over the sprinkler protruding through the opening** in the ceiling or wall.

**Size depends on the sprinkler model used. Refer to appropriate sprinkler data page.

4. Carefully push the cover plate assembly onto the sprinkler, using even pressure with the palm of the hand, until the unfinished brass flange of the cover plate base (or the cover adapter, if used) touches the surface of the ceiling or wall. The maximum adjustment available is ½" (12.7 mm) [1/4" (6.4 mm) for sprinklers VK480, VK481 and VK680]. DO NOT MODIFY THE UNIT. If necessary, re-cut the sprinkler nipple.

B. DISASSEMBLY: Cover plates can be removed either by gently unthreading them or pulling them off the sprinkler body (depends on the sprinkler model used).

C. RE-ASSEMBLY: The push-on feature of these cover plate assemblies allows easy installation of the cover plates.

1. Gently place the base of the cover plate assembly over the sprinkler.

2. Push the cover plate assembly onto the sprinkler, using even pressure with the palm of the hand, until the unfinished brass flange of the cover plate base touches the ceiling or wall.

5. OPERATION

During fire conditions, when the temperature around the sprinkler approaches its operating temperature, the cover plate detaches. Continued heating of the sprinkler causes the operating element to fuse or shatter (depending on the type of sprinkler), releasing the sealing assembly. Water flowing through the sprinkler orifice strikes the deflector or flow shaper, forming a uniform spray pattern to extinguish or control the fire.

6. INSPECTIONS, TESTS AND MAINTENANCE

Refer to NFPA 25 for Inspection, Testing and Maintenance requirements.

7. AVAILABILITY

Viking concealed sprinklers and cover assemblies are available through a network of domestic and international distributors. See The Viking Corporation web site for the closest distributor or contact The Viking Corporation.

8. GUARANTEE

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



TECHNICAL DATA

CONCEALED SPRINKLER COVER PLATE ASSEMBLIES

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058

Telephone: 269-945-9501 Technical Services: 877-384-5464 Fax: 269-818-1680 Email: techsvcs@vikingcorp.com

TABLE 1a: COMMERCIAL COVER ASSEMBLIES

Cover Part No. ¹	Cover Type	Cover Temp. Rating	Cover Diameter	Finishes Suffixes Available ^{2,3}	Sprinkler Models	Sprinkler Data Pages
09804	Flat Pendent	165 °F (74 °C) = C	2-3/4" (70 mm)	F, F-/B, B, B-/A, B-/B, E-/B, M-/W, M-/I, M-/B	VK404 (Obs) VK454 (Obs)	20a-e 57a-e
11225	Flat Pendent	135 °F (57 °C) = A	2-3/4" (70 mm)	F	VK404 (Obs) VK454 (Obs)	20a-e 57a-e
11451	Flat Sidewall	135 °F (57 °C) = A and 165 °F (74 °C) = C	2-3/4" (70 mm)	F, F-/B, B, B-/A, B-/B, E-/B, M-/W, M-/I, M-/B	VK408 (Obs)	63a-e
11697	Flat Commercial (large diameter)	135 °F (57 °C) = A and 165 °F (74 °C) = C	3-5/16" (84 mm)	F, F-/B, B, B-/A, B-/B, E-/B, M-/W, M-/I, M-/B	VK404 and VK454 (Obs)	57a-f
12381	Domed Pendent / Dry Pendent	135 °F (57 °C) = A and 165 °F (74 °C) = C	3-1/8" (80 mm)	F, B, M-/W, M-/I, M-/B	VK102 and VK202	F_101912
					VK190	F_092003
					VK192	F_081311
					VK194	F_092103
					VK196	F_092203
					VK302	F_033614
					VK352	F_102112
					VK353	F_102212
					VK614 and VK616	F_061603
13501	Domed Sidewall	135 °F (57 °C) = A and 165 °F (74 °C) = C	3-1/8" (80 mm)	F, M-/W, M-/I, M-/B	VK618	F_061503
					VK630 VK631 (Obs)	F_102805 84h-m
13504	Flat Pendent	135 °F (57 °C) = A and 165 °F (74 °C) = C	2-3/4" (70 mm)	F, F-/B, B, B-/A, B-/B, E-/B, M-/W, M-/I, M-/B	VK461	F_091506
					VK462 and VK463	F_103005
					VK462 and VK464 MRI	F_062908
					VK464	F_021606
					VK465	F_032107
					VK632 and VK634	F_080107
13642	Flat Commercial (large diameter)	135 °F (57 °C) = A and 165 °F (74 °C) = C	3-5/16" (84 mm)	F, F-/B, B, B-/A, B-/B, E-/B, M-/W, M-/I, M-/B	VK461	F_091506
					VK462 and VK463	F_103005
					VK462 and VK464 MRI	F_062908
					VK464	F_021606
					VK465	F_032107
					VK632 and VK634	F_080107

Notes

¹ Base part number is shown. For complete part number, add finish suffix and temperature suffix.

² Custom colors are also available.

³ Finish Suffixes: Polished Chrome = F, Brushed Chrome = F-/B, Bright Brass = B, Antique Brass = B-/A, Brushed Brass = B-/B, Brushed Copper = E-/B, Painted White = M-/W, Painted Ivory = M-/I, Painted Black = M-/B

(Continued on page 3.)



TECHNICAL DATA

CONCEALED SPRINKLER COVER PLATE ASSEMBLIES

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058

Telephone: 269-945-9501 Technical Services: 877-384-5464 Fax: 269-818-1680 Email: techsvcs@vikingcorp.com

TABLE 1b (continued): COMMERCIAL COVER ASSEMBLIES

Cover Part No. ¹	Cover Type	Cover Temp. Rating	Cover Diameter	Finishes Suffixes Available ^{2,3}	Sprinkler Models	Sprinkler Data Pages
13642-/CR	Cleanroom Flat Commercial (large diameter)	135 °F (57 °C) = A and 165 °F (74 °C) = C	3-5/16" (84 mm)	F-/CR, /W/CR, /I/CR, /B/CR	VK462 (QR)	F_022409
13642-/CR	Cleanroom Flat Commercial (large diameter)	135 °F (57 °C) = A and 165 °F (74 °C) = C	3-5/16" (84 mm)	F-/CR, /W/CR, /I/CR, /B/CR	VK464 (SR)	F_022409
15765-/CR	Cleanroom Flat Commercial (large diameter)	135 °F (57 °C) = A and 165 °F (74 °C) = C	3-5/16" (84 mm)	F-/CR, /W/CR, /I/CR, /B/CR	VK469 (QR)	F_120508
15394	Flat Commercial (square cover plate)	135 °F (57 °C) = A and 165 °F (74 °C) = C	3-5/16" (84 mm)	F, F-/B, B, B-/A, B-/B, E-/B, M-/W, M-/I, M-/B	VK461	F_091506
					VK462 and VK463	F_100305
					VK464	F_021606
					VK465	F_032107
					VK632 and VK634	F_080107
15765	Flat Pendent	135 °F (57 °C) = A and 165 °F (74 °C) = C	3-5/16" (84 mm)	F, M-/W, M-/I, M-/B	VK469	F_120508
					VK636	F_121009
					VK538	F_050511
16207	Flat HSW (large diameter)	135 °F (57 °C) = A and 165 °F (74 °C) = C	3-5/16" (84 mm)	F, F-/B, B, B-/A, B-/B, E-/B, M-/W, M-/I, M-/B	VK481	F_020312
16207	Flat HSW (large diameter)	135 °F (57 °C) = A	3-5/16" (84 mm)	F, M-/W, M-/I, M-/B	VK680	F_050611

Notes

¹ Base part number is shown. For complete part number, add finish suffix and temperature suffix.

² Custom colors are also available.

³ Finish Suffixes: Polished Chrome = F, Brushed Chrome = F-/B, Bright Brass = B, Antique Brass = B-/A, Brushed Brass = B-/B, Brushed Copper = E-/B, Painted White = M-/W, Painted Ivory = M-/I, Painted Black = M-/B



TECHNICAL DATA

CONCEALED SPRINKLER COVER PLATE ASSEMBLIES

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058

Telephone: 269-945-9501 Technical Services: 877-384-5464 Fax: 269-818-1680 Email: techsvcs@vikingcorp.com

TABLE 2: RESIDENTIAL COVER ASSEMBLIES

Cover Part No. ¹	Cover Type	Cover Temp. Rating	Cover Diameter	Finishes Suffixes Available ^{2,3}	Sprinkler Models	Sprinkler Data Pages
12207	Domed Residential	135 °F (57 °C) = A	3-1/8" (80 mm)	F, F-/B, B, B-/A, B-/B, E-/B, M-/W, M-/I, M-/B	VK466	F_091606
					VK458	F_092305
					VK468	F_020206
13504	Flat Residential	135 °F (57 °C) = A and 165 °F (74 °C) = C	2-3/4" (70 mm)	F, F-/B, B, B-/A, B-/B, E-/B, M-/W, M-/I, M-/B	VK457 ⁴ VK474 VK4570 ⁴ VK4740 VK488 VK4880	F_072607 F_012109 F_100710 F_012811 F_073012 F_061214
10786	Flat Residential	135 °F (57 °C) = A	2-3/4" (70 mm)	F, F-/B, B, B-/A, B-/B, E-/B, M-/W, M-/I, M-/B	VK425 (Obs)	147a-c(Obs)
13642	Flat Residential (large diameter)	135 °F (57 °C) = A and 165 °F (74 °C) = C	3-5/16" (84 mm)	F, F-/B, B, B-/A, B-/B, E-/B, M-/W, M-/I, M-/B	VK457 ⁴ VK474 VK4570 ⁴ VK4740 VK488 VK4880	F_072607 F_012109 F_100710 F_012811 F_073012 F_061214
15394	Flat Residential (square cover plate)	135 °F (57 °C) = A and 165 °F (74 °C) = C	3-5/16" (84 mm)	F, F-/B, B, B-/A, B-/B, E-/B, M-/W, M-/I, M-/B	VK457 ⁴ VK474 VK4570 ⁴ VK4740 VK488 VK4880	F_072607 F_012109 F_100710 F_012811 F_073012 F_061214
16207	Flat HSW Residential (large diameter)	135 °F (57 °C) = A	3-5/16" (84 mm)	M-/W	VK480	F_121609

Notes

¹ Base part number is shown. For complete part number, add finish suffix and temperature suffix.

² Custom colors are also available.

³ Finish Suffixes: Polished Chrome = F, Brushed Chrome = F-/B, Bright Brass = B, Antique Brass = B-/A, Brushed Brass = B-/B, Brushed Copper = E-/B, Painted White = M-/W, Painted Ivory = M-/I, Painted Black = M-/B

⁴ Not compatible with the 165 °F (74 °C) temperature rated covers.



TECHNICAL DATA

CONCEALED SPRINKLER COVER PLATE ASSEMBLIES

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058

Telephone: 269-945-9501 Technical Services: 877-384-5464 Fax: 269-818-1680 Email: techsvcs@vikingcorp.com

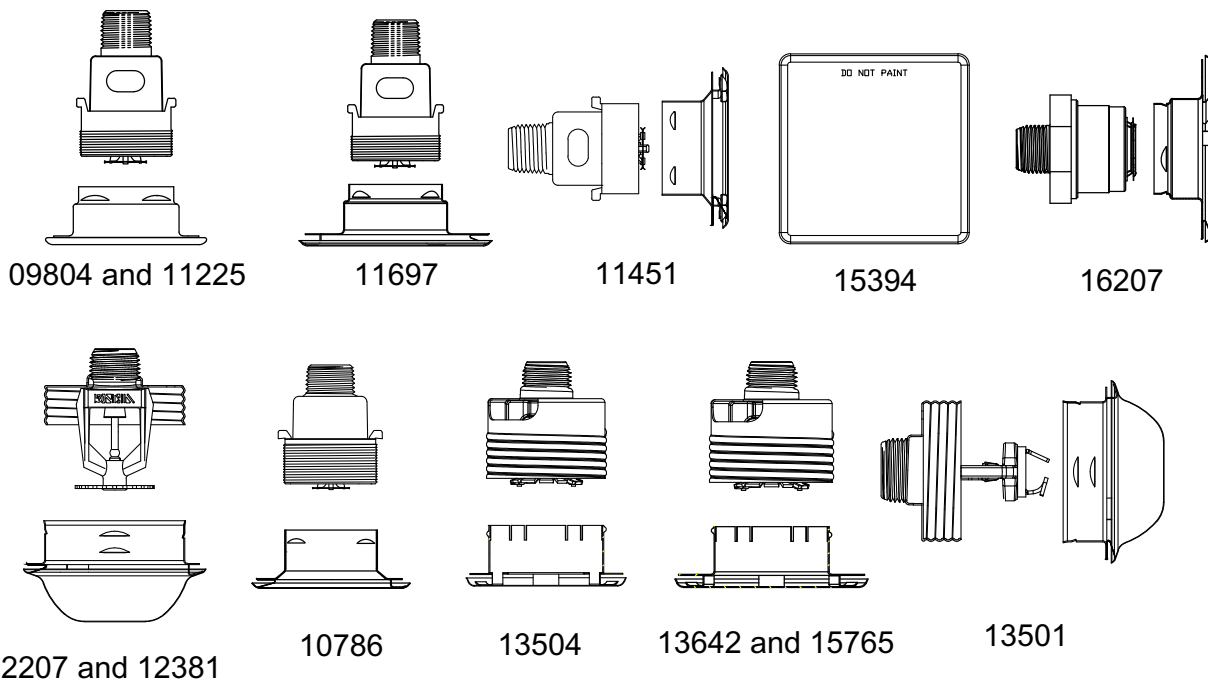


Figure 1

TABLE 3

SIN Number	Cover Base Part Number	SIN Number	Cover Base Part Number	SIN Number	Cover Base Part Number
VK102	12381	VK454	09804, 11225, 11697	VK481	16207
VK190	12381	VK457 and VK4570	13504, 13642, 15394	VK488 and VK4880	13504, 13642, 15394
VK192	12381	VK458	12207	VK538	15765
VK194	12381	VK461	13504, 13642, 15394	VK614	12381
VK196	12381	VK462	13504, 13642, 15394	VK616	12381
VK202	12381	VK463	13504, 13642, 15394	VK618	12381
VK302	12381	VK464	13504, 13642, 15394	VK630	13501
VK352	12381	VK465	13504, 13642, 15394	VK631	13501
VK353	12381	VK466	12207	VK632	13504, 13642, 15394
VK404	09804, 11225, 11697	VK468	12207	VK634	13504, 13642, 15394
VK405 (Obs)	09804, 11225	VK469	15765	VK636	15765
VK408 (Obs)	11451	VK474 and VK4740	13504, 13642, 15394	VK680	16207
VK425 (Obs)	10786	VK480	16207	--	--



TECHNICAL DATA

QUICK RESPONSE EXTRA-LARGE ORIFICE UPRIGHT SPRINKLER VK531 (STORAGE-DENSITY/AREA)

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058

Telephone: 269-945-9501 Technical Services: 877-384-5464 Fax: 269-818-1680 Email: techsvcs@vikingcorp.com

Visit the Viking website for the latest edition of this technical data page: www.vikinggroupinc.com

1. DESCRIPTION

The Viking Quick Response Extra-Large Orifice Upright Sprinkler VK531 is a thermosensitive glass bulb spray sprinkler available in several different finishes and temperature ratings to meet design requirements. The special Polyester, Electroless Nickel PTFE (ENT), and PTFE coatings can be used in decorative applications where colors are desired. In addition, these coatings have been investigated for installation in corrosive environments and are listed/approved as indicated in the Approval Charts.

The extra-large orifice provides greater flows at lower pressures than standard orifice or large orifice sprinklers. This feature allows reduced pipe sizing for hydraulically calculated sprinkler systems, which require high densities of water. Viking Standard Response Extra-Large Orifice Sprinklers may eliminate the need for a fire pump or reduce the size of the pump if it is required. On existing systems, replacing large orifice sprinklers with extra-large orifice sprinklers may provide the higher densities required to allow an increase in the hazard classification of an occupancy.

Viking Quick Response Extra-Large Orifice Upright Sprinkler VK531 may be ordered and/or used as an open sprinkler (glass bulb and pip cap assembly removed) on deluge systems. Refer to Ordering Instructions below.



NOTE: As of May 2018 all logos have been removed from the wrench boss.

2. LISTINGS AND APPROVALS



cULus Listed: Category VNIV



FM Approved: Class 2020



VdS Approved: Certificate G413059, G413060



LPCB Approved: Certificate 096e/14

Refer to Approval Chart 1 and Design Criteria on page 3 for cULus Listing requirements, and refer to Approval Chart 2 and Design Criteria on page 4 for FM Approval requirements that must be followed.

3. TECHNICAL DATA

Specifications:

Available since 2000.

Maximum Working Pressure: 175 psi (12 bar). Factory tested hydrostatically to 500 psi (34.5 bar).

Thread size: See Approval Charts

Nominal K-Factor: 11.2 U.S. (161.3 metric*)

* Metric K-factor measurement shown is when pressure is measured in Bar. When pressure is measured in kPa, divide the metric K-factor shown by 10.0.

Glass-bulb fluid temperature rated to -65 °F (-55 °C)

Overall Length: 2-5/16" (58.7 mm)

Material Standards:

Sprinkler Frame: Brass UNS-C84400

Deflector: Brass UNS-C26000

Bulb: Glass, nominal 3 mm diameter

Pip Cap and Insert Assembly: Copper UNS-C11000 and Stainless Steel UNS-S30400

Compression Screw: Brass UNS-C36000

Belleville Spring Sealing Assembly: Nickel Alloy, coated on both sides with Teflon Tape

For Polyester Coated Sprinklers: Belleville Spring-Exposed

For ENT Coated Sprinkler: Belleville Spring-Exposed, Screw and Pipcap-ENT plated.

Ordering Information: (Also refer to the current Viking price list.)

Order Quick Response Extra-Large Orifice Upright Sprinkler VK531 by first adding the appropriate suffix for the sprinkler finish and then the appropriate suffix for the temperature rating to the sprinkler base part number.



TECHNICAL DATA

QUICK RESPONSE EXTRA-LARGE ORIFICE UPRIGHT SPRINKLER VK531 (STORAGE-DENSITY/AREA)

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058

Telephone: 269-945-9501 Technical Services: 877-384-5464 Fax: 269-818-1680 Email: techsvcs@vikingcorp.com

Visit the Viking website for the latest edition of this technical data page: www.vikinggroupinc.com

Finish Suffix: Brass = A, Chrome = F, White Polyester = M-W, Black Polyester = M-B, ENT = JN

Temperature Suffix: 155 °F (68 °C) = B, 175 °F (79 °C) = D, 200 °F (93 °C) = E, 286 °F (141 °C) = G, OPEN = Z (PTFE only).

For example, sprinkler VK531 with a Brass finish and a 155 °F (68 °C) temperature rating = Part No. 10633AB

Available Finishes And Temperature Ratings: Refer to Table 1.

Accessories: (Also refer to the Viking website.)

Sprinkler Wrenches:

A. Standard Wrench: Part No. 05118CWB (available since 1981).

B. Wrench for coated sprinklers: Part No. 11663WB** (available since 2001)

**A ½" ratchet is required (not available from Viking).

Sprinkler Cabinets:

A. Six-head capacity: Part No. 01724A (available since 1971)

B. Twelve-head capacity: Part No. 01725A (available since 1971)

4. INSTALLATION

Refer to appropriate NFPA Installation Standards.

5. OPERATION

During fire conditions, when the temperature around the sprinkler reaches its operating temperature, the heat-sensitive liquid in the glass bulb expands, causing the bulb to shatter, releasing the pip cap and sealing spring assembly. Water flowing through the sprinkler orifice strikes the sprinkler deflector, forming a uniform spray pattern to extin- guish or control the fire.

6. INSPECTIONS, TESTS AND MAINTENANCE

Refer to NFPA 25 for Inspection, Testing and Maintenance requirements.

7. AVAILABILITY

The Viking Quick Response Extra-Large Orifice Upright Sprinkler is available through a network of domestic and international distributors. See The Viking Corporation web site for the closest distributor or contact The Viking Corporation.

8. GUARANTEE

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

TABLE 1: AVAILABLE SPRINKLER TEMPERATURE RATINGS AND FINISHES

Sprinkler Temperature Classification	Sprinkler Nominal Temperature Rating ¹	Maximum Ambient Ceiling Temperature ²	Bulb Color
Ordinary	155 °F (68 °C)	100 °F (38 °C)	Red
Intermediate	175 °F (79 °C)	150 °F (65 °C)	Yellow
Intermediate	200 °F (93 °C)	150 °F (65 °C)	Green
High	286 °F (141 °C)	225 °F (107 °C)	Blue

Sprinkler Finishes: Brass, Chrome, White Polyester, Black Polyester, and ENT

Corrosion-Resistant Coatings³: White Polyester, and Black Polyester in all temperature ratings. ENT in all temperature ratings except 135°F (57°C).

Footnotes

¹ The sprinkler temperature rating is stamped on the deflector.

² Based on NFPA-13. Other limits may apply, depending on fire loading, sprinkler location, and other requirements of the Authority Having Jurisdiction. Refer to specific installation standards.

³ The corrosion-resistant coatings have passed the standard corrosion test required by the approving agencies indicated in the Approval Charts. These tests cannot and do not represent all possible corrosive environments. Prior to installation, verify through the end-user that the coatings are compatible with or suitable for the proposed environment. For automatic sprinklers, the coatings indicated are applied to the exposed exterior surfaces only. Note that the spring is exposed on sprinklers with Polyester, and ENT. For all ENT coated sprinklers, the waterway is coated.



TECHNICAL DATA

QUICK RESPONSE EXTRA-LARGE ORIFICE UPRIGHT SPRINKLER VK531 (STORAGE-DENSITY/AREA)

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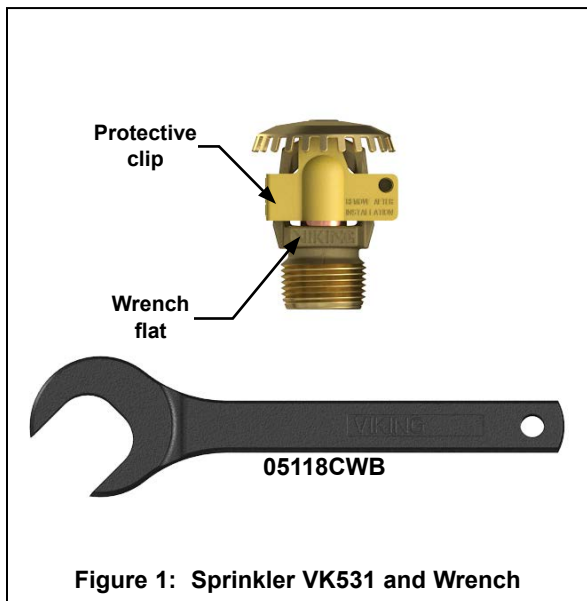


Figure 1: Sprinkler VK531 and Wrench

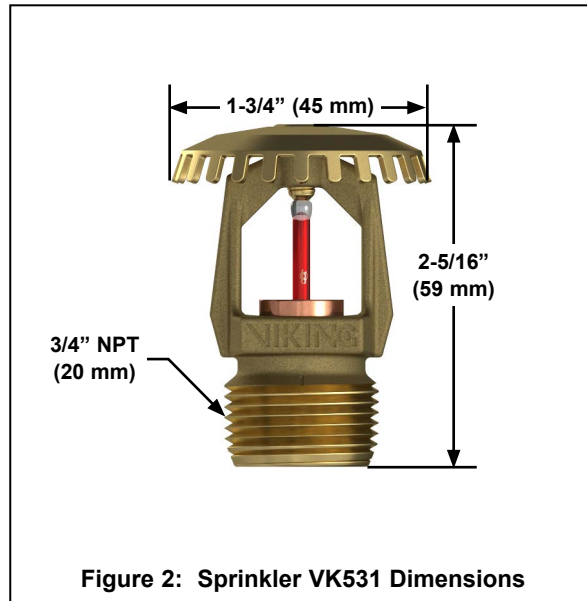


Figure 2: Sprinkler VK531 Dimensions

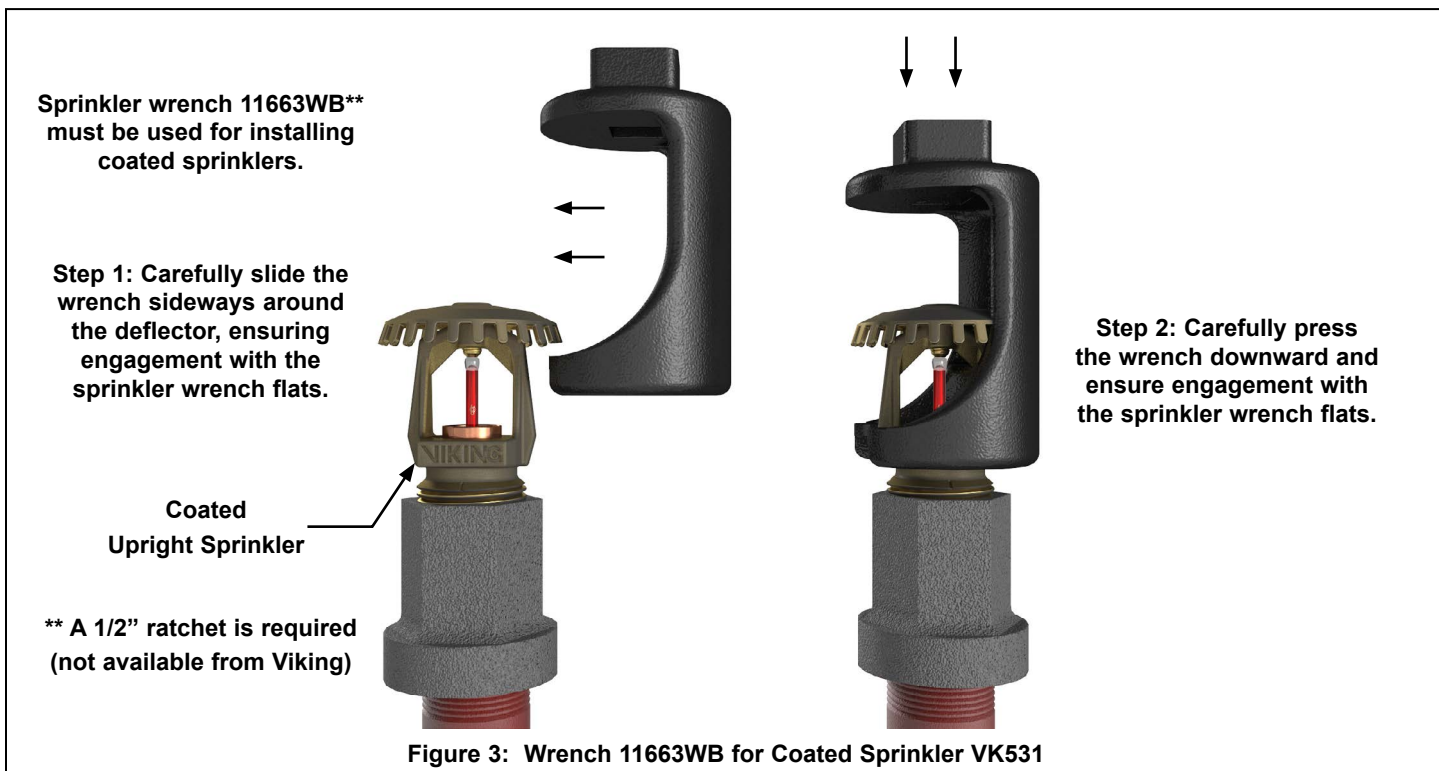


Figure 3: Wrench 11663WB for Coated Sprinkler VK531



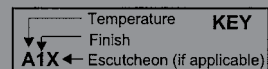
TECHNICAL DATA

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Approval Chart 1 (UL)

Quick Response Extra-Large Orifice Upright Sprinkler VK531
 Maximum 175 PSI (12 Bar) WWP



Base Part Number ¹	SIN	Sprinkler Style	Thread Size		Nominal K-Factor		Overall Length		Listings and Approvals ³ (Refer also to Design Criteria below.)			
			NPT	BSP	U.S.	metric ²	Inches	mm	cULus ^{4,5}	NYC	VdS	LPCB
10633	VK531	Upright	3/4"	20 mm	11.2	161.3	2-5/16	58.7	A1	See Footnote 6.	--	--
19304	VK5311	Upright	3/4"	20 mm	11.2	161.3	2-5/16	58.7	--	--	A2	A2
19305	VK5311	Upright	1/2"	15 mm	11.2	161.3	2-5/16	58.7	--	--	A2	A2

Approved Temperature Ratings

A - 155 °F (68 °C), 175 °F (79 °C), 200 °F (93 °C), and 286 °F (141 °C)

Approved Finishes

- 1 - Brass, Chrome, White Polyester⁷, Black Polyester⁷, and ENT⁷
 2 - Brass, Chrome, White Polyester⁷, and Black Polyester⁷

Footnotes

- ¹ Base part number shown. For complete part number, refer to Viking's current price schedule.
² Metric K-factor measurement shown is when pressure is measured in Bar. When pressure is measured in kPa, divide the metric K-factor shown by 10.0.
³ This table shows the listings and approvals available at the time of printing. Other approvals may be in process.
⁴ Listed by Underwriters Laboratories Inc. for use in the U.S. and Canada.
⁵ cULus-Listed only for use in wet pipe sprinkler systems (or preaction systems qualifying as wet systems).
⁶ Meets New York City requirements, effective July 1, 2008.
⁷ cULus Listed as corrosion-resistant.

DESIGN CRITERIA - UL

(Also refer to Approval Chart 1 above.)

cULus Listing Requirements:

Quick Response Extra-Large Orifice Upright Sprinkler VK531 is cULus Listed for installation in accordance with the latest edition of NFPA 13 for standard upright spray sprinklers:

- Designed for use in hazard occupancies up to and including Ordinary Hazard Group II with a minimum operating pressure of 7 PSI (0.5 bar).
- Also Listed for use in High-Piled Storage Occupancies as defined in NFPA 13 with a minimum operating pressure of 7 PSI (0.5 bar).
- Listed only for use in wet pipe sprinkler systems (or preaction systems qualifying as wet systems).
- The sprinkler installation and obstruction rules contained in NFPA 13 for standard spray upright sprinklers must be followed.

IMPORTANT: Always refer to Bulletin Form No. F_091699 - Care and Handling of Sprinklers. Also refer to Form No. F_080614 for general care, installation, and maintenance information. Viking sprinklers are to be installed in accordance with the latest edition of Viking technical data, the appropriate standards of NFPA, LPCB, APSAD, VdS or other similar organizations, and also with the provisions of governmental codes, ordinances, and standards, whenever applicable.



TECHNICAL DATA

QUICK RESPONSE EXTRA-LARGE ORIFICE UPRIGHT SPRINKLER VK531 (STORAGE-DENSITY/AREA)

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058
 Telephone: 269-945-9501 Technical Services: 877-384-5464 Fax: 269-818-1680 Email: techsvcs@vikingcorp.com
 Visit the Viking website for the latest edition of this technical data page: www.vikinggroupinc.com

Approval Chart 2 (FM)

Quick Response Extra-Large Orifice Upright Sprinkler VK531
 Maximum 175 PSI (12 Bar) WWP

KEY	
Temperature	↓
Finish	↙
Escutcheon (if applicable)	A1X ←

Base Part Number ¹	SIN	Sprinkler Style	Thread Size		Nominal K-Factor		Overall Length		FM Approvals ³ (Refer also to Design Criteria below.)
			NPT	BSP	U.S.	metric ²	Inches	mm	
10633	VK531	Upright	3/4"	20 mm	11.2	161.3	2-5/16	58.7	A1
Approved Temperature Ratings A - 155 °F (68 °C), 175 °F (79 °C), 200 °F (93 °C), and 286 °F (141 °C)								Approved Finishes 1 - Brass, Chrome, and ENT ⁴	

Footnotes

¹ Base part number shown. For complete part number, refer to Viking's current price schedule.

² Metric K-factor measurement shown is when pressure is measured in Bar. When pressure is measured in kPa, divide the metric K-factor shown by 10.0.

³ This table shows the FM Approvals available at the time of printing. Other approvals may be in process.

⁴ FM Approved as corrosion-resistant.

DESIGN CRITERIA - FM

(Also refer to Approval Chart 2 above.)

FM Approval Requirements:

Quick Response Extra-Large Orifice Upright Sprinkler VK531 is FM Approved as a quick response upright **Non-Storage** sprinkler and as a quick response upright **Storage** sprinkler as indicated in the FM Approval Guide. For specific application and installation requirements, reference the latest applicable FM Loss Prevention Data Sheets (including 2-0 and 8-9). FM Global Loss Prevention Data Sheets contain guidelines relating to, but not limited to: minimum water supply requirements, hydraulic design, ceiling slope and obstructions, minimum and maximum allowable spacing, and deflector distance below the ceiling.

NOTE: The FM installation guidelines may differ from cULus and/or NFPA criteria.

IMPORTANT: Always refer to Bulletin Form No. F_091699 - Care and Handling of Sprinklers. Also refer to Form No. F_080614 for general care, installation, and maintenance information. Viking sprinklers are to be installed in accordance with the latest edition of Viking technical data, the appropriate standards of NFPA, FM Global, LPCB, APSAD, VdS or other similar organizations, and also with the provisions of governmental codes, ordinances, and standards, whenever applicable.



TECHNICAL DATA

SPRINKLER ESCUTCHEONS

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1. DESCRIPTION

Viking sprinkler escutcheons are ornamental plates used with 3/8" NPT (10 mm BSP)*, 1/2" NPT (15 mm BSP)*, and 3/4" NPT (20 mm BSP)* frame-style pendent and sidewall* sprinklers. The escutcheons are installed between the sprinklers and the ceiling or wall for a pleasing appearance. They are available with several finish options to meet design requirements.

Viking recessed and adjustable escutcheons provide a low-profile decorative recessed sprinkler installation. The E-1 Recessed Escutcheon may be recessed up to 5/8" (16 mm). The Model G-1 Recessed Escutcheon allows horizontal sidewall sprinklers to be recessed up to 1/2" (13 mm). The Model F-1 Adjustable Escutcheon has 1/2" (13 mm) total adjustment available.

The two-piece design of Viking's recessed and adjustable escutcheons allows installation and testing of the sprinklers prior to installing the ceiling or wall. Viking's Model E-1, F-1, and G-1 Escutcheons feature a slip-on design, while the Model E-2 and E-3 escutcheons are threaded (outer cup threads onto the adapter).

The Viking adjustable and recessed escutcheons are made to allow for minor adjustments due to pipe or ceiling pitch. These escutcheons can be removed and reinstalled, allowing access above removable ceiling panels for servicing building equipment without shutting down the sprinkler system and removing the sprinkler.

Viking standard 1/8" (3 mm) style flat and 1" (25 mm) style raised surface-mounted escutcheons have a one-piece design.

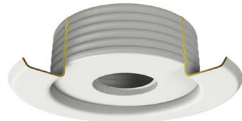
***Refer to the specific sprinkler technical data page for the escutcheon(s) listed and approved for use with the sprinkler.**

2. LISTINGS AND APPROVALS

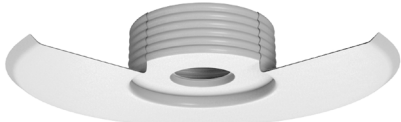
Refer to the specific sprinkler technical data pages for sprinkler listings and approvals. Sprinklers must be specifically listed and/or approved for recessed installation. When using Viking Model E-1, E-2, E-3, F-1, and G-1 escutcheons for recessed applications, refer to technical data describing the sprinkler model to be used to verify whether the sprinkler is listed and/or approved for recessed installations. **NOTE:** Viking's thread-on style Model E-2 and E-3 Recessed Escutcheons carry the same listings and approvals as the slip-on style Model E-1 Recessed Escutcheons. **Model E-3 Recessed Escutcheon also meets IBC-ASCE/SEI 7 Codes for Seismic Areas C, D, and E.**



E-1 Escutcheon



E-2 Escutcheon



E-3 Escutcheon



F-1 Escutcheon



Raised Surface Mount Escutcheon



G-1 Escutcheon



Expansion Plate



Flat Surface Mount Escutcheon



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3. TECHNICAL DATA

Specifications:

A. Slip-on Style Model E-1 Recessed Escutcheons

Depth of Outer Cup: 1-1/16" (27 mm)

Outside Diameter of Outer Cup: 3-1/16" (78 mm)

Depth of Center Adapter Ring: 11/32" (9 mm) +/- 1/32" (1 mm)

Adjustment Range: Flush to 5/8" (16 mm) recessed

NOTE: Escutcheon adapter is stamped "Viking Model E-1".

Available since 1987.

B. Threaded Style Model E-2 Recessed Escutcheons

Depth of Outer Cup: 13/16" (21 mm)

Outside Diameter of Outer Cup: 3-1/8" (80 mm)

Depth of Center Adapter Ring: 21/32" (17 mm)

Adjustment Range: 27/32" (21 mm) total adjustment with 1/2" (13 mm) maximum recess available. **NOTE:** Face of escutcheon adapter may extend up to 11/32" (9 mm) beyond edge of escutcheon cup.

Available since 2000.

C. Threaded Style Model E-3 Recessed Escutcheons

Depth of Outer Cup: 13/16" (21 mm)

Outside Diameter of Outer Cup: 5-1/8" (130 mm). (See Figure 4)

Depth of Center Adapter Ring: 21/32" (17 mm)

Adjustment Range: 27/32" (22 mm) total adjustment with 1/2" (13 mm) maximum recess available. **Note:** Face of escutcheon adapter may extend up to 11/32" (9 mm) beyond edge of escutcheon cup.

Available since 2012.

D. Model F-1 Adjustable Escutcheons

Depth of Outer Cup: 1-1/16" (27 mm)

Outside Diameter of Outer Cup: 3-1/16" (78 mm)

Depth of Center Adapter Ring: 23/32" (18 mm)

Adjustment Range: 1/2" (13 mm) total adjustment with 1/4" (6 mm) maximum recess available. **Note:** The face of escutcheon adapter may extend up to 1/4" (6 mm) beyond the edge of the escutcheon cup.

NOTE: Escutcheon adapter is stamped "Viking Model F-1".

Available since 1988.

E. Slip-on Style Model G-1 Recessed Escutcheons (US Patent No. 8,376,060)

Depth of Outer Cup: 1-1/16" (27 mm)

Outside Diameter of Outer Cup: 4" (102 mm)

Depth of Center Adapter Ring: 1-7/16" (37 mm)

Adjustment Range: Up to 5/8" (16 mm) total adjustment available for use with ceilings sloped up to 8/12 (33.7°). May be recessed up to 1/2" (13 mm), depending on degree of slope. **NOTE:** The face of escutcheon adapter may extend up to 1/2" (13 mm) beyond the edge of the escutcheon cup.

NOTE: Escutcheon adapter is stamped "Viking Model G-1".

Available since 2007.

F. Expansion Plate (optional)

1. Base Part No. 12620 for use with Model E-1, E-2, and F-1 Escutcheons. May also be used with dry recessed sprinklers, dry standard adjustable sprinklers, and flat plate concealed sprinklers.

Outside Diameter: 5" (127 mm)

Inside Diameter: 2-3/16" (56 mm)

Available since 2005.

2. Base Part No. 13128 for use with Domed Concealed Sprinklers.

Outside Diameter: 5" (127 mm)

Inside Diameter: 2-15/32" (63 mm) for Part No. 13128.

Available since 2005.

3. Base Part No. 16340 for use with Concealed Sprinkler VK636.

Outside Diameter: 5-5/16" (135 mm)

Inside Diameter: 2-3/8" (61 mm)

Available since 2010.



TECHNICAL DATA

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G. Standard Flat and Raised Surface-Mounted Escutcheons

Depth of Escutcheons: Flat: 1/8" (3 mm), Raised: 1" (25 mm)
Available since 1972.

Material Standards:

A. Slip-on Style Model E-1 Recessed Escutcheons:

Cold Rolled Steel UNS-G10080 or Stainless Steel UNS-S30400

B. Threaded Style Model E-2 and E-3 Recessed

Escutcheons:

24 ga. (1 mm) thick 1010-1018 mild steel

C. Model G-1 Recessed Escutcheons and Model F-1

Adjustable Escutcheons: Cold Rolled Steel UNS-G10080

D. Expansion Plate (optional): Cold Rolled Steel UNS-G10080

E. Standard Flat and Raised Surface-Mounted Escutcheons:

Flat Style Part Numbers 01960A, 01015A, 02960A, and 05464A: Cold Rolled Steel UNS-G10080.

Flat Style Part Numbers 09488, 07526, and 09596*: Stainless Steel UNS-S43000

* These may also be special ordered and manufactured from Brass (nonmagnetic material). Contact the manufacturer for more information.

Raised Style Part Numbers 01961B and 01016A: Brass UNS-C26000
or UNS-C26800.

Ordering Information: (Also refer to the current Viking price list.)

Viking recessed and adjustable escutcheons are available as escutcheon packages (includes outer cup and adapter). Order Viking escutcheons by adding the appropriate suffix for the finish to the base part number.

A. Model F-1 Adjustable and Model E-1, E-2, E-3, and G-1 Recessed Escutcheons: To order as an escutcheon package (includes outer cup and adapter), specify the appropriate package part number from Table 1.

B. Standard Flat and Raised Surface-Mounted Escutcheons: Specify the flat or raised escutcheon part number from Table 1.
Finish Suffix: Bright Brass = B, Polished Chrome = F, White Polyester = M-/W, and Black Polyester = M-/B.

For example, the Model E-1 Recessed Escutcheon for 1/2" NPT sprinkler, Brass finish = Part No. 06419AB. The 1/2" Model E-1 Recessed Escutcheon is also available in Antique Brass, Brushed Copper, Brushed Chrome, and Brushed Brass as standard finishes.

NOTE: Sprinklers are not included and must be ordered separately.

4. INSTALLATION

A. If the proposed installation of Model E-1, E-2, E-3, F-1, or G-1 Escutcheons requires recessing any of the heat-sensitive operating element, some Authorities Having Jurisdiction may limit the use, depending on the occupancy classification. Refer to the Authority Having Jurisdiction prior to installation. The use of quick response sprinklers may also be limited due to occupancy and hazard. Refer to the Authority Having Jurisdiction prior to installation.

B. All escutcheon styles are made to thread onto the sprinkler head prior to installing the sprinkler into the fitting. The escutcheon must be attached to the sprinkler prior to applying pipe-joint compound or PTFE tape to the sprinkler threads. **NOTE:** Sprinklers with protective caps or bulb shields must be contained within the caps or shields before applying pipe-joint compound or tape.

C. Refer to the appropriate sprinkler technical data page for additional warnings and installation instructions and then install the escutcheons according to the following sequence.

D. Model F-1 Adjustable and Model E-1, E-2, E-3, and G-1 Recessed Escutcheons:

(Refer to Figures 2-5.)

Step 1: Install all piping and cut the sprinkler nipple so that the reducing coupling is at the desired location and centered in a minimum 2-5/16" (59 mm) to a maximum 2-1/2" (64 mm) diameter opening in the ceiling or wall for Model E-1, E-2, or F-1 Escutcheons, 2-5/16" (59 mm) to 4-1/2" (115mm) for Model E-3, or 2-5/8" (66 mm) to 3-3/4" (95 mm) for Model G-1 Escutcheons.

Step 2: Secure the escutcheon adapter onto the sprinkler by hand turning the adapter clockwise onto the sprinkler threads. The face of the adapter should rest on the shoulder of the sprinkler wrench boss.

Step 3: Apply a small amount of pipe-joint compound or PTFE tape to the external threads of the sprinkler only, taking care not to allow a build-up of compound in the sprinkler inlet. **NOTE:** Sprinklers with protective caps or bulb shields must be contained within the caps or shields before applying pipe-joint compound or tape.



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Step 4: Install the sprinkler into the coupling using the special recessed sprinkler wrench only, taking care not to over-tighten or damage the sprinkler operating parts. DO NOT use the escutcheon, sprinkler deflector, or fusible element to start or thread the sprinkler into a fitting.

Step 5: Test the system as required and repair all leaks. If a thread leak occurs, normally the unit must be removed, new pipe-joint compound or PTFE tape applied, and then reinstalled. This is due to the fact that when the joint seal leaks, the sealing compound or tape is washed out of the joint.

Step 6: **Remove plastic protective sprinkler caps and bulb shields AFTER the wall or ceiling finish work is completed where the sprinkler is installed and there no longer is a potential for mechanical damage to the sprinkler operating elements.** To remove the bulb shields, simply pull the ends of the shields apart where they are snapped together. To remove caps from frame style sprinklers, turn the caps slightly and pull them off the sprinklers. **SPRINKLER CAPS AND BULB SHIELDS MUST BE REMOVED FROM SPRINKLERS BEFORE PLACING THE SYSTEM IN SERVICE!** Retain a protective cap in the spare sprinkler cabinet.

Step 7: After installing the ceiling or wall with the required opening size, press on or thread on (depends on the style of escutcheon used) the outer escutcheon cup until the flanges touch the surface of the ceiling or wall.

(NOTE: If the optional escutcheon expansion plate is used, first slide it onto the escutcheon cup. The flange on the expansion plate should touch the surface of the ceiling or wall.)

With the slip-on style Model E-1 Recessed Escutcheon, the maximum adapter recess is 5/8" (16 mm).

With the threaded style Model E-2 and E-3 Recessed Escutcheons, the maximum recess is 1/2" (13 mm). **Note:** The face of the escutcheon adapter may extend up to 11/32" (9 mm) beyond edge of escutcheon cup, resulting in 27/32" (21 mm) total adjustment range.

With the Model F-1 Adjustable Escutcheon, the maximum recess is 1/4" (6 mm). **Note:** The face of the escutcheon adapter may extend up to 1/4" (6 mm) beyond the edge of the escutcheon cup, resulting in 1/2" (13 mm) total adjustment range.

With the slip-on style Model G-1 Recessed Escutcheon, the maximum adapter recess is 1/2" (13 mm).

DO NOT modify the unit. If necessary, re-cut the sprinkler drop nipple as required.

E. Standard Flat and Raised Surface-Mounted Escutcheons:

Step 1: Install all piping and cut the sprinkler nipple so that the reducing coupling is at the desired location and centered in a maximum 2-1/2" (64 mm) diameter opening in the ceiling or wall.

Step 2: Secure the escutcheon onto the sprinkler by hand turning the escutcheon clockwise onto the sprinkler threads. (The convex surface of the escutcheon must face toward the deflector of the sprinkler.)

Step 3: Apply a small amount of pipe-joint compound or PTFE tape to the external threads of the sprinkler only, taking care not to allow a build-up of compound in the sprinkler inlet. **NOTE:** Sprinklers with protective caps or bulb shields must be contained within the caps or shields before applying pipe-joint compound or tape.

Step 4: Install the sprinkler into the coupling using the special sprinkler wrench only, taking care not to over-tighten or damage the sprinkler operating parts. DO NOT use the escutcheon, sprinkler deflector, or fusible element to start or thread the sprinkler into a fitting.

Step 5: After installation, the entire sprinkler system must be tested. The test must be conducted to comply with the installation standards. Make sure the sprinkler is properly tightened. If a thread leak occurs, normally the unit must be removed, new pipe-joint compound or tape applied, and then reinstalled. This is due to the fact that when the joint seal leaks, the sealing compound or tape is washed out of the joint.

Step 6: **Remove plastic protective sprinkler caps and bulb shields AFTER the wall or ceiling finish work is completed where the sprinkler is installed and there no longer is a potential for mechanical damage to the sprinkler operating elements.** To remove the bulb shields, simply pull the ends of the shields apart where they are snapped together. To remove caps from frame style sprinklers, turn the caps slightly and pull them off the sprinklers. **SPRINKLER CAPS AND BULB SHIELDS MUST BE REMOVED FROM SPRINKLERS BEFORE PLACING THE SYSTEM IN SERVICE!** Retain a protective cap in the spare sprinkler cabinet.

DO NOT modify the unit. If necessary, re-cut the sprinkler drop nipple as required.



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F. Disassembly:

The outer cups of Viking adjustable and recessed escutcheons can be removed and reinstalled without removing the sprinklers to allow access above the ceiling or to replace it, if necessary.

1. For slip-on style Model E-1 or G-1 Recessed Escutcheons and Model F-1 Adjustable Escutcheons, remove the outer cup simply by pulling it outward and away from the wall or ceiling.
2. To remove the outer cup of the threaded style Model E-2 and E-3 Recessed Escutcheons, turn it counterclockwise to unthread it from the adapter.

If it is necessary to remove the entire unit, the system must be removed from service. Refer to maintenance instructions on the appropriate sprinkler technical data page and follow all warnings and instructions.

5. OPERATION

Refer to the sprinkler technical data page for the sprinkler model used.

6. INSPECTIONS, TESTS AND MAINTENANCE

Refer to NFPA 25 for Inspection, Testing and Maintenance requirements.

7. AVAILABILITY

Viking sprinklers and escutcheons are available through a network of domestic and international distributors. See The Viking Corporation web site for the closest distributor or contact The Viking Corporation.

8. GUARANTEE

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



TECHNICAL DATA

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Base Part Number	Material	Style	Sprinkler Thread Size	Available Finishes	Outside Diameter
Standard Flat and Raised Surface-Mounted Escutcheons					
01960A	Steel	Flat	1/2" (15 mm)	B, F	3-5/16" (84 mm)
09488	Stainless Steel††	Flat	1/2" (15 mm)	F, JN	3-5/16" (84 mm)
01015A	Steel	Flat	3/4" (20 mm)	F	3-5/16" (84 mm)
02960A	Steel	Flat	1/2" (15 mm)	B, F, M/W, M/B	2-3/4" (70 mm)
07526	Stainless Steel††	Flat	1/2" (15 mm)	F, M/W, JN	2-3/4" (70 mm)
05464A	Steel	Flat	3/4" (20 mm)	B, F, M/W	2-3/4" (70 mm)
09596	Stainless Steel††	Flat	3/4" (20 mm)	F, JN	2-3/4" (70 mm)
01961B	Brass	Raised	1/2" (15 mm)	F	3-1/16" (78 mm)
01016A	Brass	Raised	3/4" (20 mm)	F	3-1/16" (78 mm)
E-1 Slip-on Style Recessed Escutcheon Packages (includes adapter and outer cup)					
11123	Steel	Recessed Slip-on	3/8" (10 mm)	F, M/W	3-1/16" (78 mm)
06419A	Steel	Recessed Slip-on	1/2" (15 mm)	B, F, M/W, M/B	3-1/16" (78 mm)
07902	Stainless Steel	Recessed Slip-on	1/2" (15 mm)	F, M/W, JN	3-1/16" (78 mm)
20123	Stainless Steel	Recessed Slip-on	3/4" (20 mm)	F, M/W, JN	3-1/16" (78 mm)
20369	Steel	Recessed Slip-on	3/4" (20 mm)	B, F, M/W, M/B	3-1/16" (78 mm)
E-2 Threaded Style Recessed Escutcheon Packages (includes adapter and outer cup)					
11038	Steel	Recessed Threaded	1/2" (15 mm)	F, M/W	3-1/8" (79 mm)
20130	Steel	Recessed Threaded	3/4" (20 mm)	F, M/W	3-1/8" (79 mm)
E-3 Threaded Style Recessed Escutcheon Packages (includes adapter and outer cup)					
18347	Steel	Recessed Threaded	1/2" (15 mm)	F, M/W	5 -1/8" (130mm)
20135	Steel	Recessed Threaded	3/4" (20 mm)	F, M/W	5 -1/8" (130mm)
F-1 Adjustable Escutcheon Packages (includes adapter and outer cup)					
06911A	Steel	Adjustable	1/2" (15 mm)	B, F, M/W, M/B	3-1/16" (78 mm)
20371	Steel	Adjustable	3/4" (20 mm)	B, F, M/W, M/B	3-1/16" (78 mm)
G-1 Recessed Escutcheon Package (includes adapter and outer cup)					
14315	Steel	Recessed Slip-on	1/2" (15 mm)	B, F, M/W, M/B	4" (102 mm)
20133	Steel	Recessed Slip-on	3/4" (20 mm)	B, F, M/W, M/B	4" (102 mm)
Optional Expansion Plates Available Separately					
12620	Steel	E-1, E-2 Recessed & F-1 Adjustable	3/8", 1/2", & 3/4" (10, 15, & 20 mm)	B, F, M/W, M/B, M/SW1641, B/B, F/B, E/B	5" (127 mm)
13128	Steel	Domed Concealed	1/2" & 3/4" (15 & 20 mm)	F, M/W	5" (127 mm)
16340	Steel	Concealed (for Sprinkler VK636)	3/4" (20 mm)	F, M/W	5-5/16" (135 mm)
Escutcheon Finishes: B = Bright Brass, F = Polished Chrome, M/W = White Polyester, M/B = Black Polyester, JN = Electroless Nickel PTFE, M/SW1641 = Navajo White Paint, B/A = Antique Brass, B/B = Brushed Brass, F/B = Brushed Chrome, E/B = Brushed Copper. Note: Other colors are available on request with the same listings and approvals as the standard colors. See Sherwin-Williams® Color Answers™ Interior Color Selection color chart. ††Escutcheons 09488, 07526, and 09596 may also be special ordered and manufactured from Brass (non-magnetic material). Contact the manufacturer for more details.					
Table 1					



TECHNICAL DATA

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IMPORTANT NOTES

Per the current edition of NFPA 13: "Escutcheons used with recessed, flush-type, or concealed sprinklers shall be part of a listed sprinkler assembly." The Viking Corporation will not authorize the sale of unlisted recessed sprinkler assemblies nor assume any liability involving recessed sprinkler assemblies that are not considered cULus Listed, FM Approved, or in full compliance with NFPA requirements".

Listings and approvals vary, depending on the sprinkler model, temperature rating, finish, and occupancy classification.

⚠ WARNING Viking products are manufactured and tested to meet the rigid requirements of the approving agency. The sprinklers are designed to be installed in accordance with recognized installation standards. Deviation from the standards or any alteration to the sprinkler after it leaves the factory including, but not limited to: painting, plating, coating, or modification, may render the sprinkler inoperative and will nullify the approval and any guarantee made by The Viking Corporation.

IMPORTANT: Always refer to Bulletin Form No. F_091699 - Care and Handling of Sprinklers. Also refer to the appropriate sprinkler data page. Viking sprinklers are designed to be installed in accordance with the latest edition of Viking technical data, the latest standards of NFPA, FM Global, LPCB, APSAD, VdS or other similar organizations, and also with the provisions of governmental codes, ordinances, and standards whenever applicable. The use of certain types of sprinklers may be limited due to occupancy and hazard. Refer to the Authority Having Jurisdiction prior to installation.

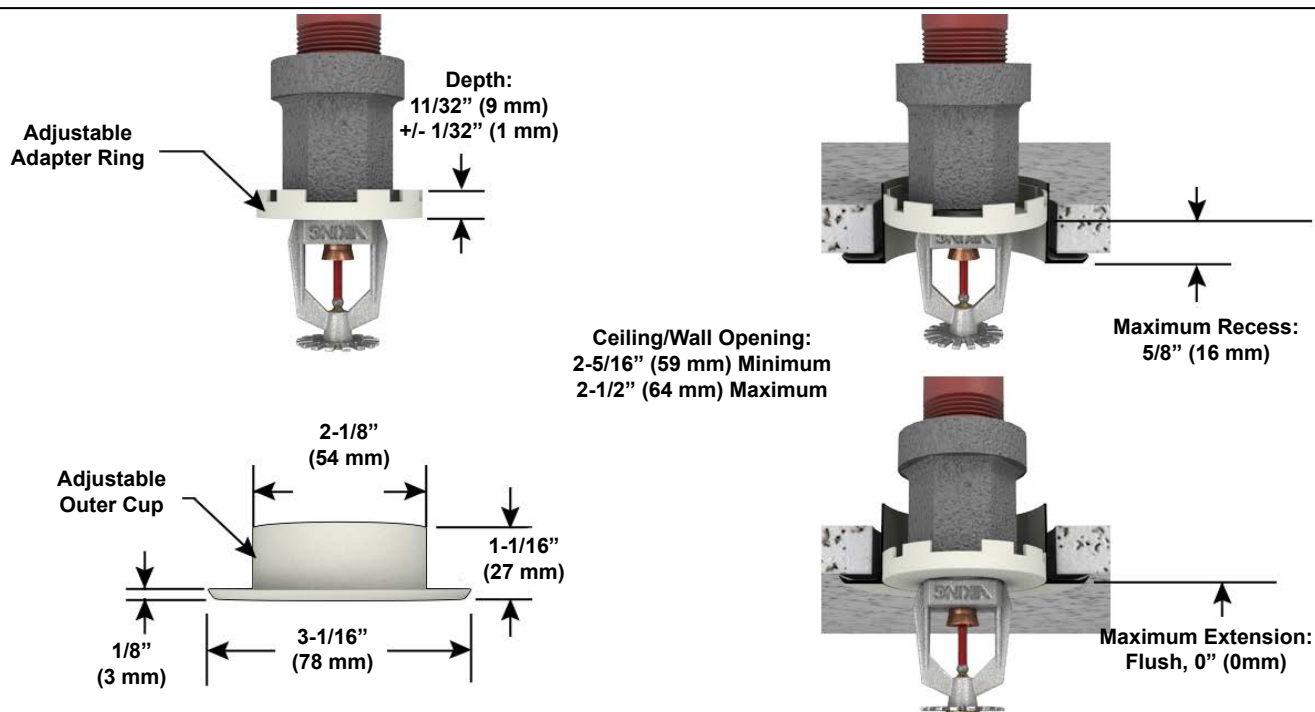


Figure 2: Installation of a Slip-on Style Model E-1 Recessed Escutcheon with $5/8''$ (16 mm) Maximum Recess.



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SPRINKLER ESCUTCHEONS

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Telephone: 269-945-9501 Technical Services: 877-384-5464 Fax: 269-818-1680 Email: techsvcs@vikingcorp.com

Visit the Viking website for the latest edition of this technical data page www.vikinggroupinc.com

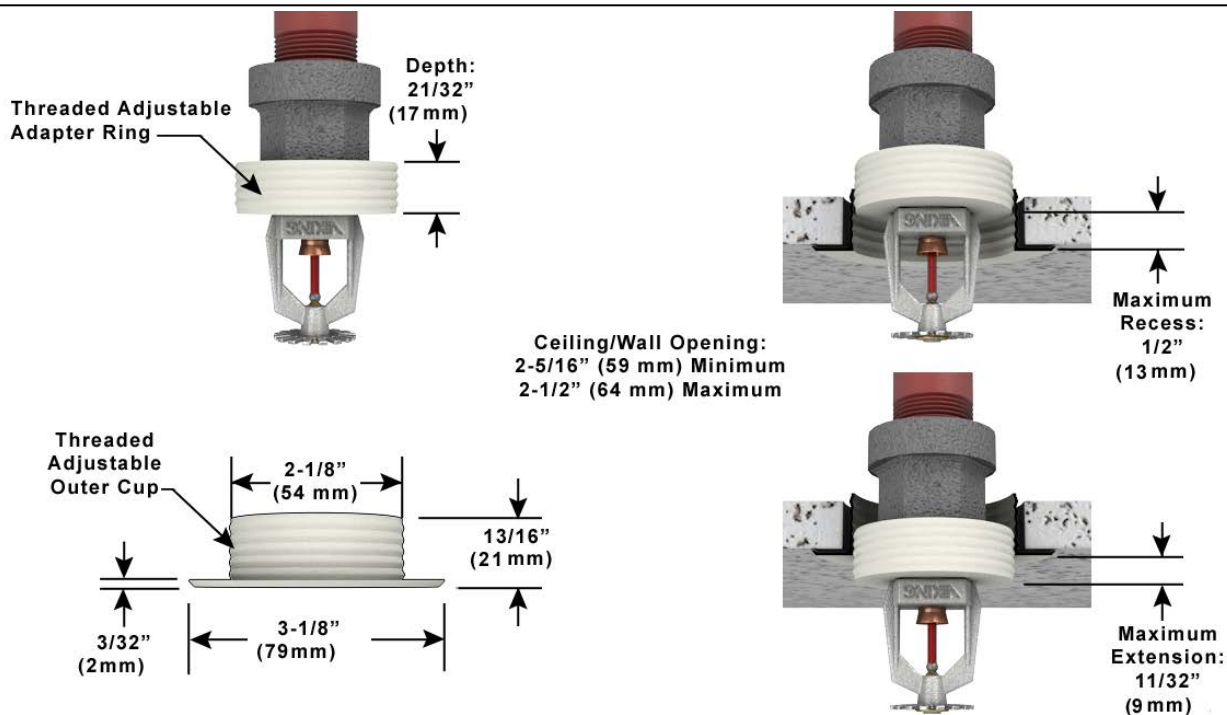


Figure 3: Installation of a Thread-on Style Model E-2 Recessed Escutcheon with $27/32''$ (21 mm) Total Adjustment.

Model E-3 Recessed Escutcheon meets IBC-ASCE/SEI 7 Codes for Seismic Areas C, D, and E

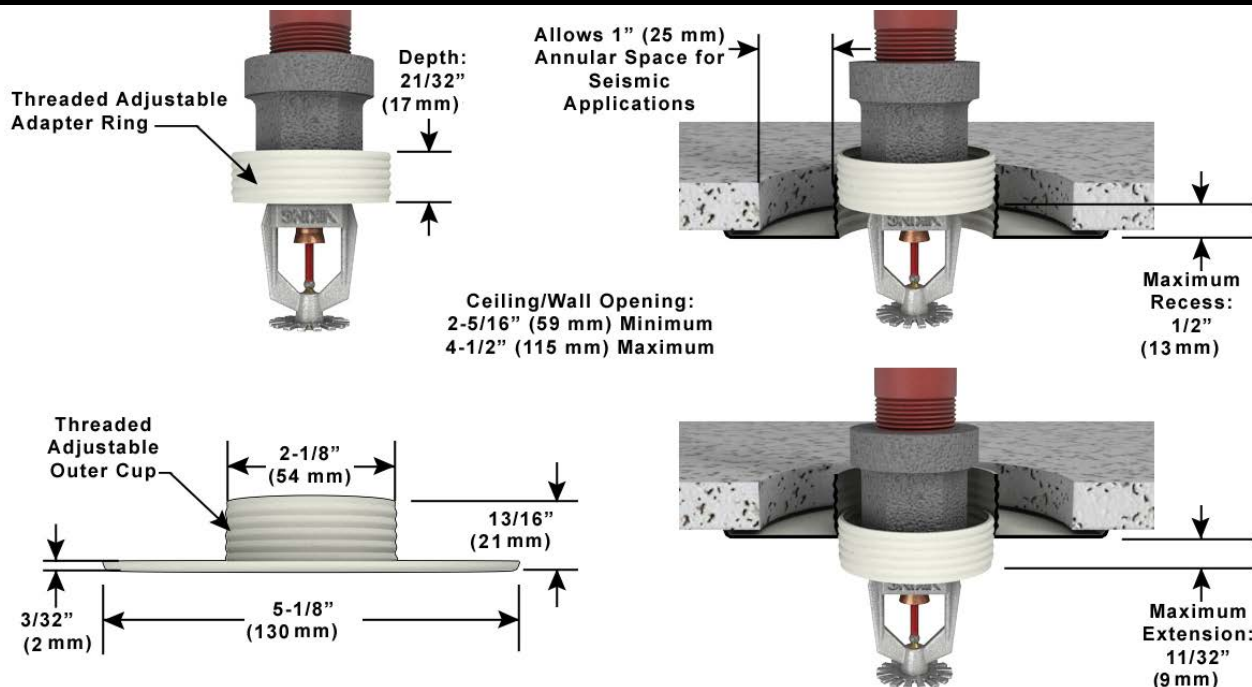


Figure 4: Installation of a Thread-on Style Model E-3 Recessed Escutcheon with $27/32''$ (21 mm) Total Adjustment.



TECHNICAL DATA

SPRINKLER ESCUTCHEONS

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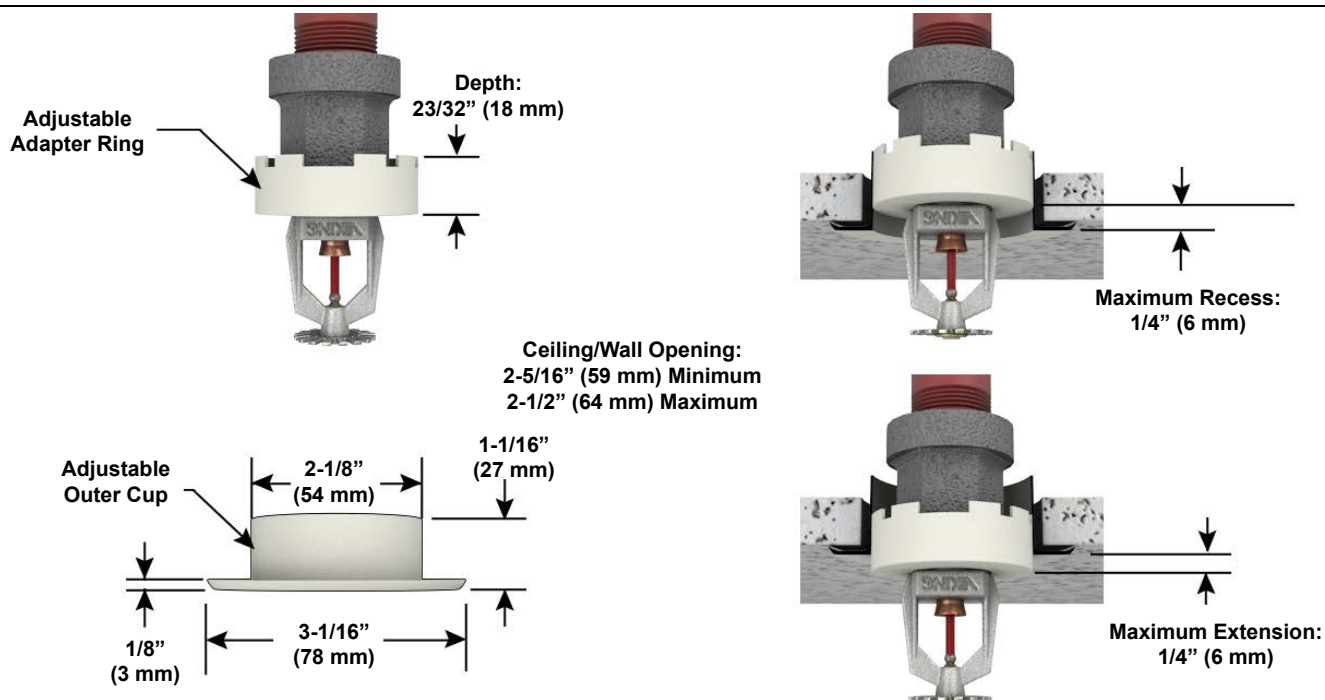


Figure 5: Installation of a Model F-1 Adjustable Escutcheon with $\frac{1}{2}$ " (12 mm) Total Adjustment.

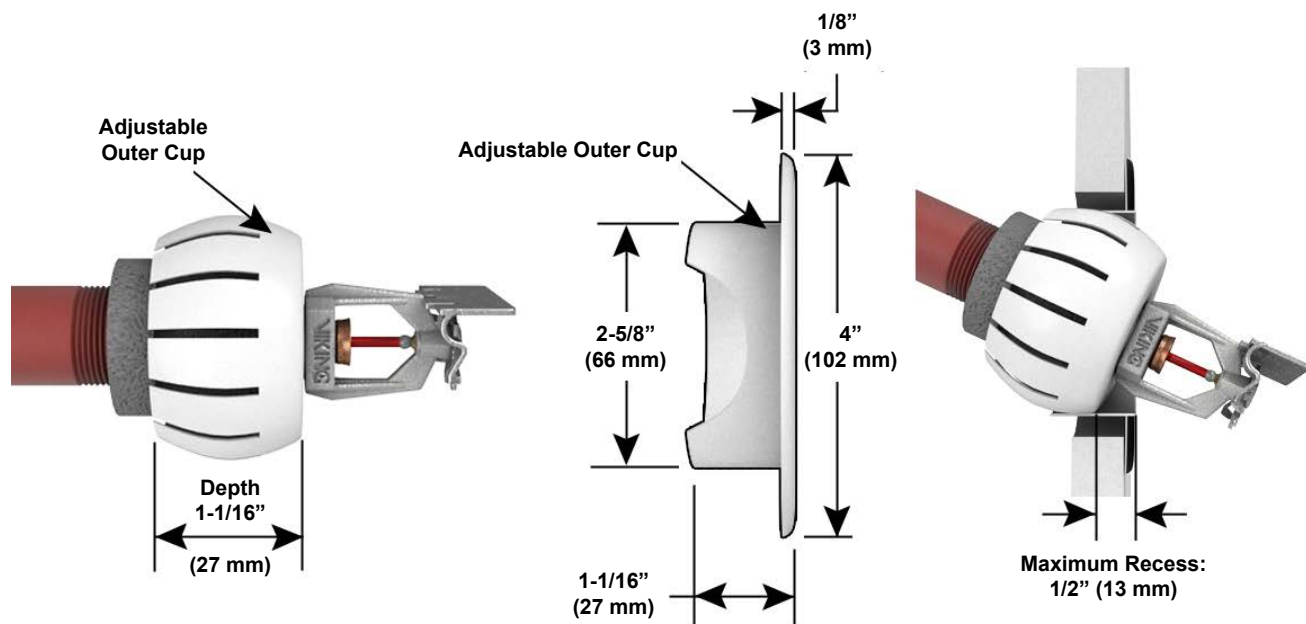


Figure 6: Installation of the Model G-1 Recessed Escutcheon with up to $\frac{1}{2}$ " (12.7 mm) Adjustment.



TECHNICAL DATA

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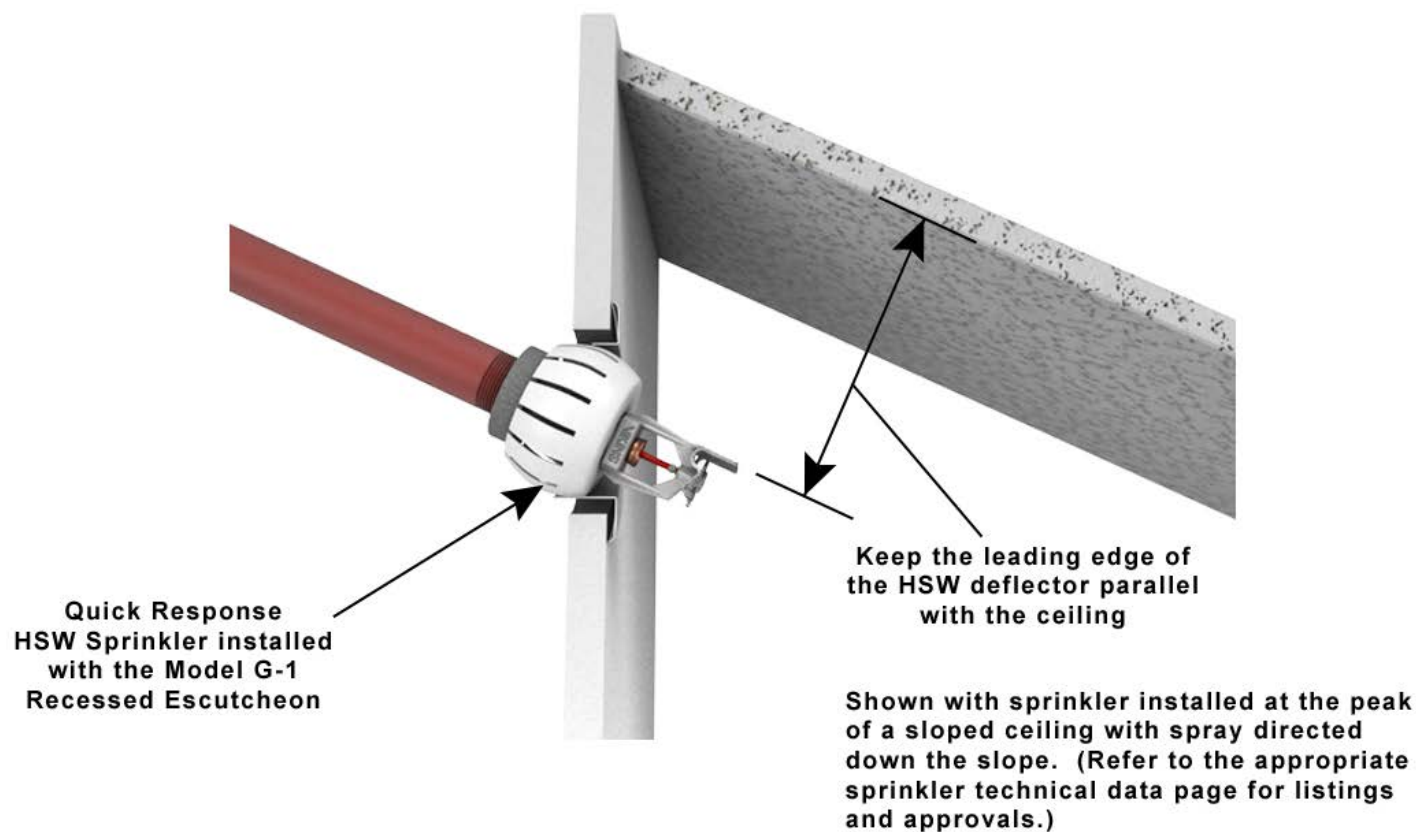


Figure 7: Model G-1 Recessed Escutcheon Installed with a Residential HSW Sprinkler below a sloped ceiling.



TECHNICAL DATA

MICROMATIC® STANDARD RESPONSE PENDENT SPRINKLER VK202 (K8.0)

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058

Telephone: 269-945-9501 Technical Services: 877-384-5464 Fax: 269-818-1680 Email: techsvcs@vikingcorp.com

Visit the Viking website for the latest edition of this technical data page: www.vikinggroupinc.com

1. DESCRIPTION

The Viking Micromatic® Standard Response Pendent VK202 Sprinkler is a small, thermostatic, glass-bulb spray sprinkler available in several different finishes, temperature ratings, and K-Factors to meet design requirements. The special Polyester and Electroless Nickel PTFE (ENT) coatings can be used in decorative applications where colors are desired. In addition, these coatings have been investigated for installation in corrosive atmospheres and are listed/approved as corrosion resistant as indicated in the Approval Charts. (Note: **FM Global approves the ENT coating as corrosion resistant.** FM Global has no approval classification for Polyester coatings as corrosion resistant.)

Viking standard response sprinklers may be ordered and/or used as open sprinklers (glass bulb and pip cap assembly removed) on deluge systems. Refer to Ordering Instructions.



NOTE: As of May 2018 all logos have been removed from the wrench boss.

2. LISTINGS AND APPROVALS



cULus Listed: Category VNIV



FM Approved: Class Series 2000



VdS Approved: Certificate G414015 and G414016



CE Certified: Standard EN 12259-1, EC-certificate of conformity 0832-CPD-0021 and 0786-CPD-40141



CCCF Approved: Approved by the China Certification Center for Fire Products (CCCF)

NOTE: Other International approval certificates are available upon request.

Refer to Approval Charts and Design Criteria for listing and approval requirements that must be followed.

3. TECHNICAL DATA

Specifications:

Minimum Operating Pressure: 7 psi (0.5 bar)†

Maximum Working Pressure: 175 psi (12 bar) wwp

Factory tested hydrostatically to 500 psi (34.5 bar)

Thread size: 1/2" NPT, 15 mm BSP, 3/4" NPT, 20 mm BSP

Nominal K-Factor: 8.0 U.S. (115.2 metric**)

Glass-bulb fluid temperature rated to -65 °F (-55 °C)

Overall Length: 2-1/4" (57 mm)

† cULus Listing, FM Approval, and NFPA 13 installs require a minimum of 7 psi (0.5 bar). The minimum operating pressure for CE Approvals ONLY is 5 psi (0.35 bar).

** Metric K-factor measurement shown is in Bar. When pressure is measured in kPa, divide the metric K-factor shown by 10.0.

Material Standards:

Frame Casting: Brass UNS-C84400

Deflector: Phosphor Bronze UNS-C51000†† or Copper UNS-C19500

Bulb: Glass, nominal 5 mm diameter

Belleville Spring Sealing Assembly: Nickel Alloy, coated on both sides with PTFE Tape

Screw: Brass UNS-C36000

Pip Cap and Insert Assembly: Copper UNS-C11000 and Stainless Steel UNS-S30400

For Polyester Coated Sprinklers: Belleville Spring-Exposed

For ENT coated Sprinklers: Belleville Spring - Exposed, Screw and Pipcap - ENT plated.

††Not for FM Approval.

Ordering Information: (Also refer to the current Viking price list.)

Order Micromatic® and MicromaticHP® Standard Response Pendent Sprinklers by first adding the appropriate suffix for the sprinkler finish and then the appropriate suffix for the temperature rating to the sprinkler base part number.

Finish Suffix: Brass = A, Chrome = F, White Polyester = M-W, Black Polyester = M-B, Wax Coated = C, Wax Over Polyester = V-W, ENT = JN



TECHNICAL DATA

MICROMATIC® STANDARD RESPONSE PENDENT SPRINKLER VK202 (K8.0)

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058

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Temperature Suffix: 135 °F (57 °C) = A, 155 °F (68 °C) = B, 175 °F (79 °C) = D, 200 °F (93 °C) = E, 212 °F (100 °C) = M, 286 °F (141 °C) = G, 360 °F (182 °C) = H, 500 °F (260 °C) = L.

For example, sprinkler VK202 with a 1/2" thread, Brass finish and a 155 °F (68 °C) temperature rating = Part No. 18269AB

Available Finishes And Temperature Ratings: Refer to Table 1.

Accessories: (Also refer to the Viking website.)

Sprinkler Wrenches:

- A. Standard Wrench: Part No. 21475MB (available since 2017).
- B. Standard Wrench for Wax Coated Sprinklers: Part No. 10896WB (available since 2000)
- C. Socket Wrench for Recessed Pendent Sprinklers: Part No. 13655WB* (available since 2006)
- D. Optional Protective Sprinkler Cap Remover/Escutcheon Installer Tool** Part No. 15915 (available since 2010.)
- E. Socket Wrench for Wax Coated Sprinklers: Part No. 13577WB* (available since 2006)

*A 1/2" ratchet is required (not available from Viking).

**Allows use from the floor by attaching a length of 1" diameter CPVC tubing to the tool. Ideal for sprinkler cabinets. Refer to Bulletin F_051808.

Sprinkler Cabinets:

- A. Six-head capacity: Part No. 01724A (available since 1971)
- B. Twelve-head capacity: Part No. 01725A (available since 1971)

4. INSTALLATION

Refer to appropriate NFPA Installation Standards.

5. 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 flowing through the sprinkler orifice strikes the sprinkler deflector, forming a uniform spray pattern to extinguish or control the fire.

6. INSPECTIONS, TESTS AND MAINTENANCE

Refer to NFPA 25 for Inspection, Testing and Maintenance requirements.

7. AVAILABILITY

The Viking Micromatic® Standard Response Pendent Sprinkler VK202 is available through a network of domestic and international distributors. See The Viking Corporation web site for the closest distributor or contact The Viking Corporation.

8. GUARANTEE

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



TECHNICAL DATA

MICROMATIC® STANDARD RESPONSE PENDENT SPRINKLER VK202 (K8.0)

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TABLE 1: AVAILABLE SPRINKLER TEMPERATURE RATINGS AND FINISHES

Sprinkler Temperature Classification	Sprinkler Nominal Temperature Rating ¹	Maximum Ambient Ceiling Temperature ²	Bulb Color
Ordinary	135 °F (57 °C)	100 °F (38 °C)	Orange
Ordinary	155 °F (68 °C)	100 °F (38 °C)	Red
Intermediate	175 °F (79 °C)	150 °F (65 °C)	Yellow
Intermediate	200 °F (93 °C)	150 °F (65 °C)	Green
High	286 °F (141 °C)	225 °F (107 °C)	Blue
Extra High	360 °F (182 °C)	300 °F (149 °C)	Mauve
Ultra High ³	500 °F (260 °C)	465 °F (240 °C)	Black

Sprinkler Finishes: Brass, Chrome, White Polyester, Black Polyester and ENT

Corrosion-Resistant Coatings⁴: White and Black Polyester in all temperature ratings. ENT in all temperature ratings except 135 °F (57 °C). Wax-Coated Brass and Wax over Polyester⁵ for sprinklers with the following temperature ratings:

155 °F (68 °C) Lt. Brown Wax 175 °F (79 °C) Brown Wax 200 °F (93 °C) Brown Wax 286 °F (141 °C) Dk. Brown Wax⁵

Footnotes

¹ The sprinkler temperature rating is stamped on the deflector.

² Based on NFPA-13. Other limits may apply, depending on fire loading, sprinkler location, and other requirements of the Authority Having Jurisdiction. Refer to specific installation standards.

³ Sprinklers of Ultra-High temperature rating are intended for use inside ovens, dryers, or similar enclosures with normal operating temperatures above 300 °F (149 °C). Where the ambient temperature around the Ultra-High temperature rated sprinkler is significantly reduced below 300 °F (149 °C), response time may be severely retarded.

⁴ The corrosion-resistant coatings have passed the standard corrosion test required by the approving agencies indicated in the Approval Charts. These tests cannot and do not represent all possible corrosive environments. Prior to installation, verify through the end-user that the coatings are compatible with or suitable for the proposed environment. For automatic sprinklers, the coatings indicated are applied to the exposed exterior surfaces only. Note that the spring is exposed on sprinklers with Polyester and ENT coatings. For ENT coated automatic sprinklers, the waterway is coated.

⁵ Wax melting point is 286 °F (141 °C) temperature rated sprinklers.

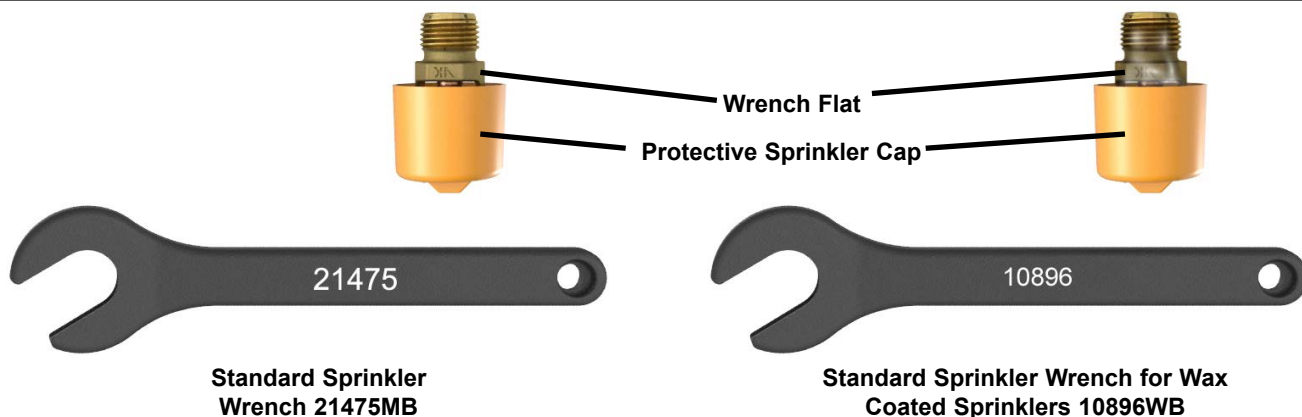


Figure 1:
Standard Sprinkler Wrenches



TECHNICAL DATA

MICROMATIC® STANDARD RESPONSE PENDENT SPRINKLER VK202 (K8.0)

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Approval Chart 1

Micromatic® Standard Response Pendent Sprinklers
Maximum 175 PSI (12 bar) WWP

Temperature	KEY
Finish	
A1X ← Escutcheon (if applicable)	

Sprinkler Base Part Number ¹	SIN	Thread Size		Nominal K-Factor		Overall Length		Listings and Approvals ³ (Refer also to UL Design Criteria.)					
		NPT	BSP	U.S.	metric ²	Inches	mm	cULus ⁴	VdS	LPCB	CE ⁸	10	CCC ⁹
Standard Orifice													
18269 ⁹	VK202	1/2"	15 mm	8.0	115.2	2-1/4"	57	A1, B4, B1Y, C5, D3, E6, G6Z	A2	A2, B4	--	--	--
18264	VK202	3/4"	20 mm	8.0	115.2	2-1/4"	57	A1, B4, B1Y, C5, D3, E6, G6Z	A2	A2, B4, B2Y	F3, G2Y	--	--
18267	VK202	--	20 mm	8.0	115.2	2-1/4"	57	A1, B4, B1Y, C5, D3, E6, G6Z	A2	A2, B4, B2Y	F3, G2Y	--	--
20380	VK202	3/4"	--	8.0	115.2	2-1/4"	57	--	--	--	--	--	H3
20376	VK202	--	20 mm	8.0	115.2	2-1/4"	57	--	--	--	--	--	H3
NOTICE - Product Below - Limited Availability (Contact Local Viking Office)													
10223 ⁹	VK202	1/2"	15 mm	8.0	115.2	2-3/8"	60	A1, B4, B1Y, C5, D3, E6, G6Z	A2	--	--	--	--
10142	VK202	3/4"	20 mm	8.0	115.2	2-5/16"	59	A1, B4, B1Y, C5, D3, E6, G6Z	A2	A2, B2Y	F3, G2Y	F3	--
10170	VK202	--	20 mm	8.0	115.2	2-3/8"	60	A1, B4, B1Y, C5, D3, E6, G6Z	A2	A2, B2Y	F3, G2Y	F3	--
Approved Temperature Ratings													
A - 135 °F (57 °C), 155 °F (68 °C), 175 °F (79 °C), 200 °F (93 °C), 286 °F (141 °C), and 360 °F (182 °C)													
B - 135 °F (57 °C), 155 °F (68 °C), 175 °F (79 °C), and 200 °F (93 °C)													
C - 286 °F (141 °C)													
D - 500 °F (260 °C) ⁷													
E - 155 °F (68 °C), 175 °F (79 °C), 200 °F (93 °C), 286 °F (141 °C), 360 °F (182 °C), and 500 °F (260 °C) ⁷													
F - 155 °F (68 °C), 175 °F (79 °C), 200 °F (93 °C), 286 °F (141 °C), and 360 °F (182 °C)													
G - 155 °F (68 °C), 175 °F (79 °C), and 200 °F (93 °C)													
H - 155 °F (68 °C), 200 °F (93 °C), and 286 °F (141 °C)													
				Approved Finishes									
				1 - Brass, Chrome, White Polyester ^{5,6} and Black Polyester ^{6,6}									
				2 - Brass, Chrome, White Polyester ⁶ , and Black Polyester ⁶									
				3 - Brass and Chrome									
				4 - Wax-Coated Brass and Wax Over Polyester ⁵									
				5 - High Temperature 200 °F (93 °C) Wax Coating (corrosion resistant); maximum ambient temperature allowed at ceiling = 150 °F (65 °C)									
				6 - ENT ⁵									
								Approved Escutcheons					
								X - Recessed with the Viking Micromatic® Model E-1, E-2, or E-3 Recessed Escutcheon					
								Y - Standard surface-mounted escutcheon or the Viking Microfast® Model F-1 Adjustable Escutcheon or recessed with the Viking Micromatic® Model E-1, E-2, or E-3 Recessed Escutcheon					
								Z - Standard surface-mounted escutcheon or recessed with the Viking Micromatic® Model E-1					

Footnotes

¹ Base part number is shown. For complete part number, refer to Viking's current price schedule.

² 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.

³ This table shows the listings and approvals available at the time of printing. Check with the manufacturer for any additional approvals.

⁴ Listed by Underwriters Laboratories Inc. for use in the U.S. and Canada.

⁵ cULus Listed as corrosion resistant.

⁶ Other colors are available on request with the same Listings and Approvals as the standard colors.

⁷ Sprinklers of Ultra-High temperature rating are intended for use inside ovens, dryers, or similar enclosures with normal operating temperatures above 300 °F (149 °C). Where the ambient temperature around the Ultra-High temperature rated sprinkler is significantly reduced below 300 °F (149 °C), the response time of the Ultra-High temperature rated sprinkler may be severely retarded.

⁸ CE Certified, Standard EN 12259-1, EC-certificate of conformity 0832-CPD-0021 and 0832-CPD-2003.

⁹ The 1/2" NPT Large Orifice Sprinkler is listed and approved for retrofit only when installed in accordance with NFPA 13.

¹⁰ MED Certified, Standard EN 12259-1, EC-certificate of conformity 0832-MED-1003 and 0832-MED-1008.



TECHNICAL DATA

MICROMATIC® STANDARD RESPONSE PENDENT SPRINKLER VK202 (K8.0)

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DESIGN CRITERIA - UL

(Also refer to Approval Chart 1.)

cULus Listing Requirements:

The Viking Micromatic® Standard Response Pendent Sprinkler VK202 is cULus Listed as indicated in Approval Chart 1 for installation in accordance with the latest edition of NFPA 13 for standard spray sprinklers.

- Designed for use in Light, Ordinary, and Extra Hazard occupancies.
- The sprinkler installation rules contained in NFPA 13 for standard spray pendent sprinklers must be followed.

IMPORTANT: Always refer to Bulletin Form No. F_091699 - Care and Handling of Sprinklers. Also refer to page F_080614 for general care, installation, and maintenance information. Viking sprinklers are to be installed in accordance with the latest edition of Viking technical data, the appropriate standards of NFPA, LPCB, APSAD, VdS or other similar organizations, and also with the provisions of governmental codes, ordinances, and standards, whenever applicable.

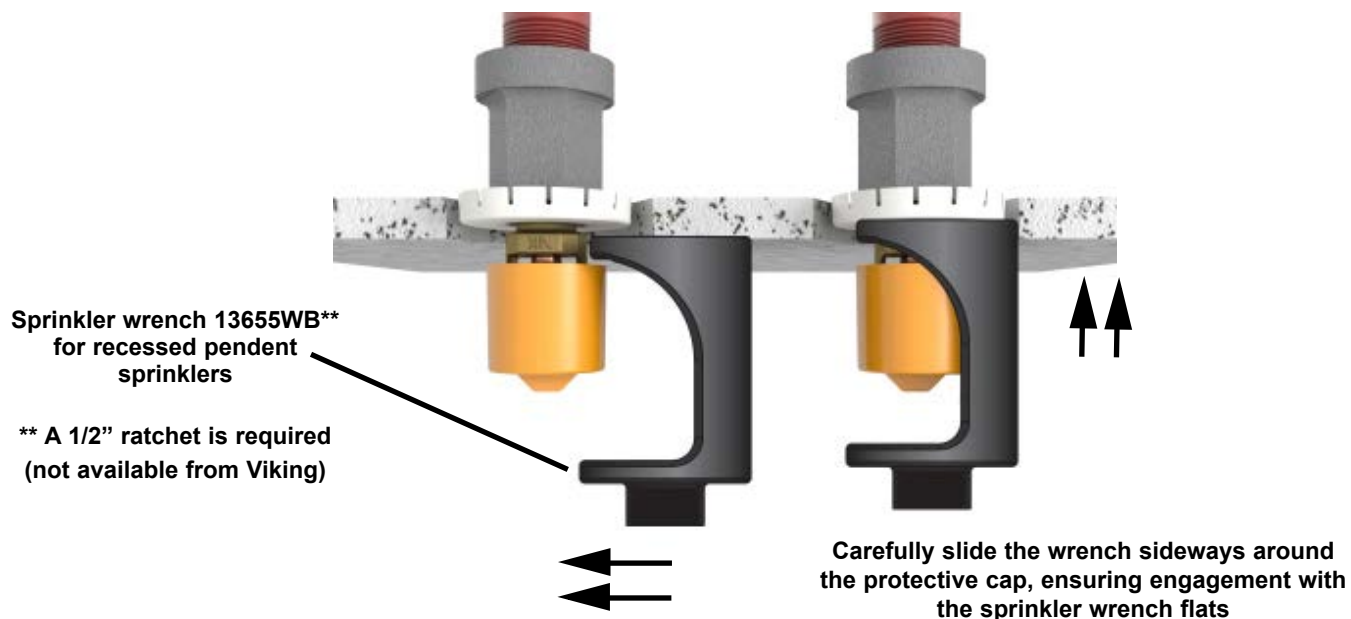


Figure 2: Wrench 13655WB for Recessed Pendent Sprinklers



TECHNICAL DATA

MICROMATIC® STANDARD RESPONSE PENDENT SPRINKLER VK202 (K8.0)

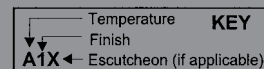
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Approval Chart 2 (FM)

Micromatic® Standard Response Pendent Sprinklers
Maximum 175 PSI (12 bar) WWP



Sprinkler Base Part Number ¹	SIN	Thread Size		Nominal K-Factor		Overall Length		FM Approvals ³ (Refer also to Design Criteria below.)	
		NPT	BSP	U.S.	metric ²	Inches	mm		
Standard Orifice									
18269 ⁷	VK202	1/2"	15 mm	8.0	115.2	2-1/4"	57	A1, B2, C1, D3, B1Y, E3Z	
18264	VK202	3/4"	20 mm	8.0	115.2	2-1/4"	57	A1, B2, C1, D3, B1Y, E3Z	
18267	VK202	--	20 mm	8.0	115.2	2-1/4"	57	A1, B2, C1, D3, B1Y, E3Z	
NOTICE - Product Below - Limited Availability (Contact Local Viking Office)									
10223 ⁷	VK202	1/2"	15 mm	8.0	115.2	2-3/8"	60	A1, B2, C1, D3, B1X, E3Z	
10142	VK202	3/4"	20 mm	8.0	115.2	2-5/16"	59	A1, B2, C1, D3, B1X, E3Z	
10170	VK202	--	20 mm	8.0	115.2	2-3/8"	60	A1, B2, C1, D3, B1X, E3Z	
Approved Temperature Ratings A - 135 °F (57 °C), 155 °F (68 °C), 175 °F (79 °C), 200 °F (93 °C), 286 °F (141 °C), and 360 °F (182 °C) B - 135 °F (57 °C), 155 °F (68 °C), 175 °F (79 °C), and 200 °F (93 °C) C - 500 °F (260 °C) ⁵ D - 155 °F (68 °C), 175 °F (79 °C), 200 °F (93 °C), 286 °F (141 °C), 360 °F (182 °C), and 500 °F (260 °C) ⁵ E - 155 °F (68 °C), 175 °F (79 °C), and 200 °F (93 °C)				Approved Finishes 1 - Brass, Chrome, White Polyester ⁴ , and Black Polyester ⁴ 2 - Wax-Coated Brass (corrosion resistant) 3- ENT ⁶				Approved Escutcheons X - Recessed with the Viking Micromatic® Model E-1, E-2, or E-3 Recessed Escutcheon Y - Standard surface-mounted escutcheon or the Viking Microfast® Model F-1 Adjustable Escutcheon or recessed with the Viking Micromatic® Model E-1, E-2, or E-3 Recessed Escutcheon Z - Standard surface-mounted escutcheon or re- cessed with the Viking Micromatic® Model E-1	

Footnotes

¹ Base part number is shown. For complete part number, refer to Viking's current price schedule.

² 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.

³ This table shows the listings and approvals available at the time of printing. Check with the manufacturer for any additional approvals.

⁴ Other colors are available on request with the same Approvals as the standard colors.

⁵ Sprinklers of Ultra-High temperature rating are intended for use inside ovens, dryers, or similar enclosures with normal operating temperatures above 300 °F (149 °C). Where the ambient temperature around the Ultra-High temperature rated sprinkler is significantly reduced below 300 °F (149 °C), the response time of the Ultra-High temperature rated sprinkler may be severely retarded.

⁶ FM approved as corrosion resistant.

⁷ The 1/2" NPT Large Orifice Sprinkler is listed and approved for retrofit only when installed in accordance with NFPA 13.

DESIGN CRITERIA - FM

(Also refer to Approval Chart 2.)

FM Approval Requirements:

The Viking Micromatic® Standard Response Pendent Sprinkler VK202 is is FM Approved as standard response **Non-Storage** pendent sprinkler as indicated in the FM Approval Guide. For specific application and installation requirements, reference the latest applicable FM Loss Prevention Data Sheets (including Data Sheet 2-0). FM Global Loss Prevention Data Sheets contain guidelines relating to, but not limited to: minimum water supply requirements, hydraulic design, ceiling slope and obstructions, minimum and maximum allowable spacing, and deflector distance below the ceiling.

NOTE: The FM installation guidelines may differ from cULus and/or NFPA criteria.

IMPORTANT: Always refer to Bulletin Form No. F_091699 - Care and Handling of Sprinklers. Also refer to page F_080614 for general care, installation, and maintenance information. Viking sprinklers are to be installed in accordance with the latest edition of Viking technical data, the appropriate standards of NFPA, FM Global, LPCB, APSAD, VdS or other similar organizations, and also with the provisions of governmental codes, ordinances, and standards, whenever applicable.



TECHNICAL DATA

MICROMATIC® STANDARD RESPONSE PENDENT SPRINKLER VK202 (K8.0)

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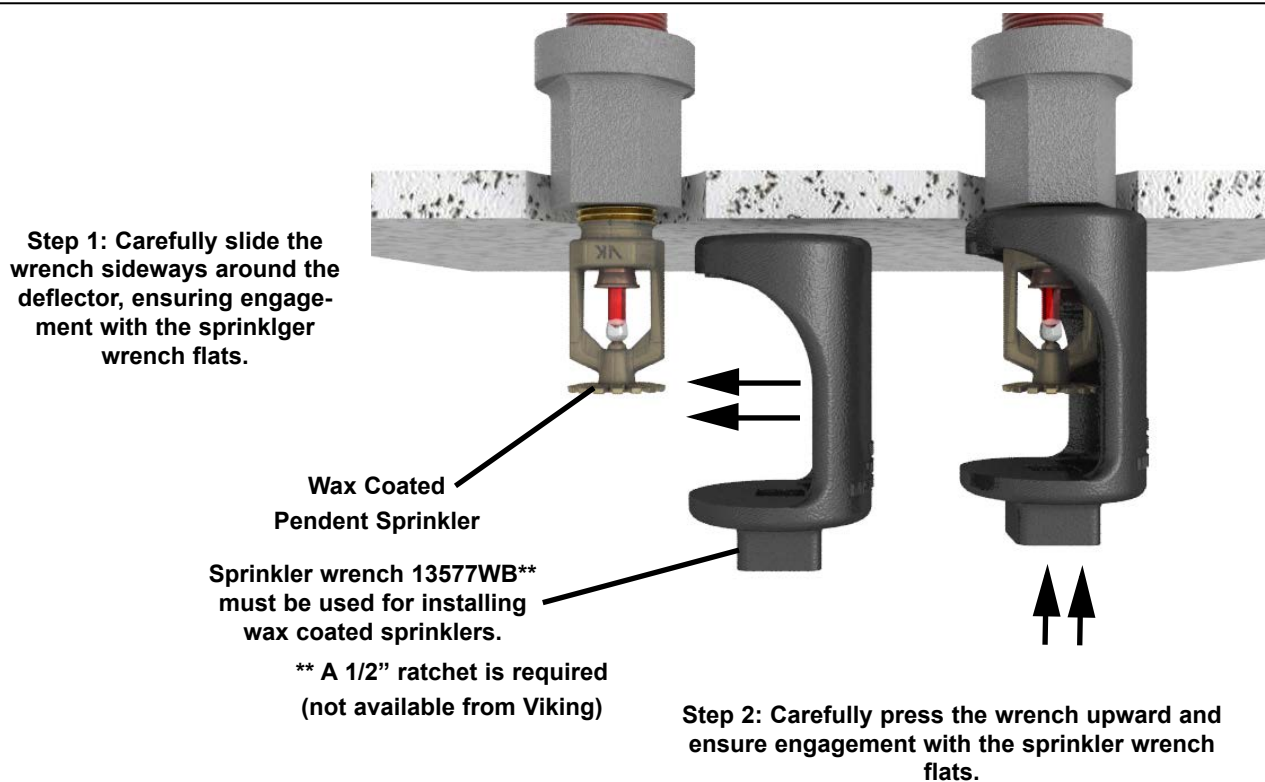


Figure 3: Wrench 13577WB for Wax Coated Sprinklers



TECHNICAL DATA

MICROMATIC® STANDARD RESPONSE PENDENT SPRINKLER VK202 (K8.0)

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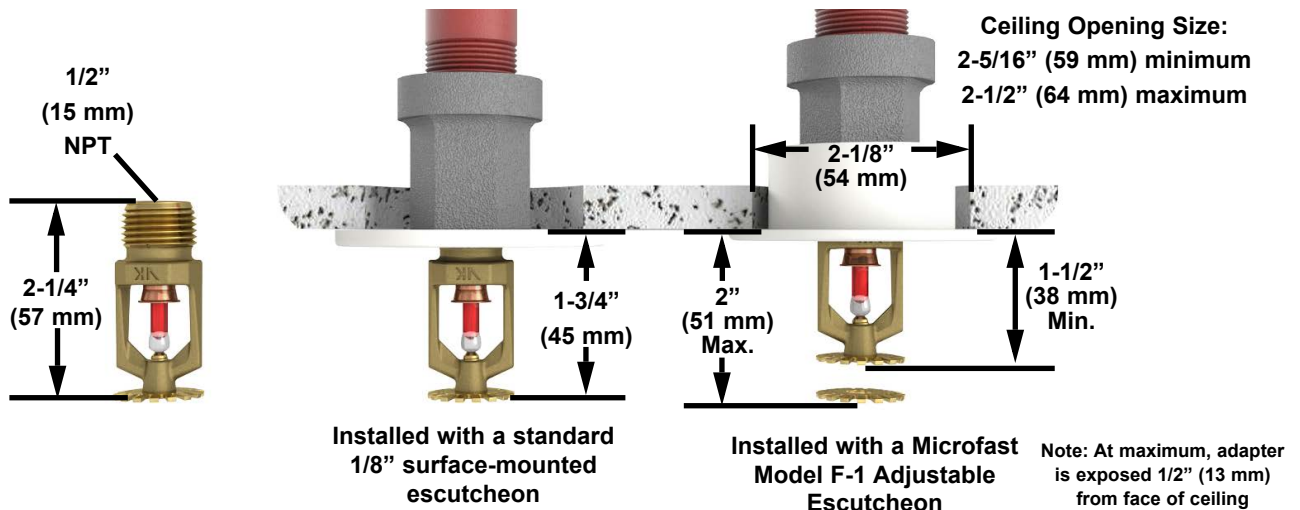


Figure 4: Sprinkler Dimensions with a Standard Escutcheon and the Model F-1 Adjustable Escutcheon

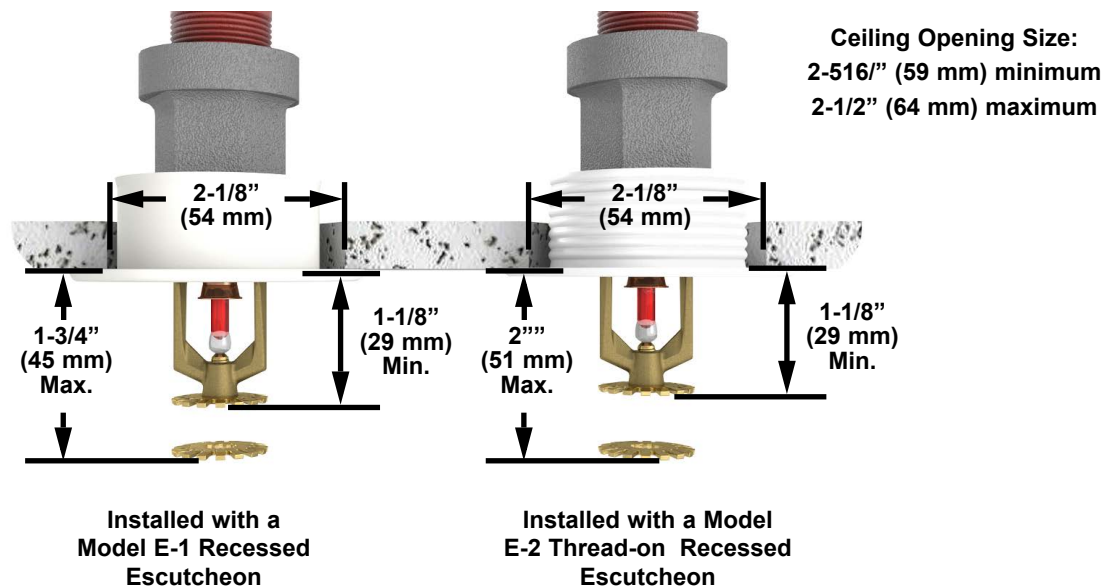


Figure 5: Sprinkler Dimensions with the Model E-1 and E-2 Recessed Escutcheons



TECHNICAL DATA

MICROFAST® QUICK RESPONSE UPRIGHT SPRINKLER VK350 (K8.0)

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058

Telephone: 269-945-9501 Technical Services: 877-384-5464 Fax: 269-818-1680 Email: techsvcs@vikingcorp.com

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1. DESCRIPTION

The Viking Microfast® Quick Response Upright Sprinkler VK350 is a small, thermo-sensitive, glass-bulb spray sprinkler available in several different finishes, temperature ratings, and K-Factors to meet design requirements. The special Polyester, and Electroless Nickel PTFE (ENT) coatings can be used in decorative applications where colors are desired. In addition, these coatings have been investigated for installation in corrosive environments and are listed/approved as indicated in the Approval Charts.



2. LISTINGS AND APPROVALS



cULus Listed: Category VNIV



FM Approved: Class Series 2000



VdS Approved: Certificates G414017 and G414018



LPCB Approved



CE Certified: Standard EN 12259-1, EC-certificate of conformity 0832-CPD-2001 and 0786-CPD-40278



CCC Approved: Approved by the China Certification Center for Fire Products (CCC)

NOTE: Other International approval certificates are available upon request.

Refer to Approval Chart 1 and Design Criteria cULus Listing requirements, and refer to Approval Chart 2 and Design Criteria FM Approval requirements that must be followed.

3. TECHNICAL DATA

Specifications:

Minimum Operating Pressure: 7 psi (0.5 bar)*
Maximum Working Pressure: 175 psi (12 bar) wwp.
Factory tested hydrostatically to 500 psi (34.5 bar)
Testing: U.S.A. Patent No. 4,831,870
Thread size: 1/2" NPT, 15 mm BSP, 3/4" NPT, 20 mm BSP
Nominal K-Factor: 8.0 U.S. (115.2 metric**)
Glass-bulb fluid temperature rated to -65 °F (-55 °C)
Overall Length: 2-5/16" (59 mm)

*cULus Listing, FM Approval, and NFPA 13 installs require a minimum of 7 psi (0.5 bar). The minimum operating pressure for LPCB and CE Approvals ONLY is 5 psi (0.35 bar).

Material Standards:

Frame Casting: Brass UNS-C84400
Deflector: Copper UNS-C19500
Bulb: Glass, nominal 3 mm diameter
Belleville Spring Sealing Assembly: Nickel Alloy, coated on both sides with PTFE Tape
Screw: Brass UNS-C36000
Pip Cap and Insert Assembly: Copper UNS-C11000 and Stainless Steel UNS-S30400
For Polyester Coated Sprinklers: Belleville Spring-Exposed
For ENT Coated Sprinklers: Belleville Spring-Exposed, Screw and Pipcap - ENT plated.

Ordering Information:

 (Also refer to the current Viking price list.)

Order Viking Microfast® Quick Response Upright Sprinkler VK350 by first adding the appropriate suffix for the sprinkler finish and then the appropriate suffix for the temperature rating to the sprinkler base part number.

Finish Suffix: Brass = A, Chrome = F, White Polyester = M-W, Black Polyester = M-B, and ENT = JN
Temperature Suffix (°F/°C): 135°/57° = A, 155°/68° = B, 175°/79° = D, 200°/93° = E, and 286°/141° = G

For example, sprinkler VK350 with a 1/2" thread, Brass finish and a 155 °F/68 °C temperature rating = Part No. 18259AB

Available Finishes And Temperature Ratings: Refer to Table 1.

Accessories: (Also refer to the Viking website.)

Sprinkler Wrench: Standard Wrench: Part No. 21475MB (available since 2017)



TECHNICAL DATA

MICROFAST® QUICK RESPONSE UPRIGHT SPRINKLER VK350 (K8.0)

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058

Telephone: 269-945-9501 Technical Services: 877-384-5464 Fax: 269-818-1680 Email: techsvcs@vikingcorp.com

Visit the Viking website for the latest edition of this technical data page: www.vikinggroupinc.com

Sprinkler Cabinets:

- A. Six-head capacity: Part No. 01724A (available since 1971)
- B. Twelve-head capacity: Part No. 01725A (available since 1971)

4. INSTALLATION

Refer to appropriate NFPA Installation Standards.

5. 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 flowing through the sprinkler orifice strikes the sprinkler deflector, forming a uniform spray pattern to extinguish or control the fire.

6. INSPECTIONS, TESTS AND MAINTENANCE

Refer to NFPA 25 for Inspection, Testing and Maintenance requirements.

7. AVAILABILITY

The Viking Microfast® Quick Response Upright Sprinkler VK350 is available through a network of domestic and international distributors. See The Viking Corporation web site for the closest distributor or contact The Viking Corporation.

8. GUARANTEE

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

TABLE 1: AVAILABLE SPRINKLER TEMPERATURE RATINGS AND FINISHES

Sprinkler Temperature Classification	Sprinkler Nominal Temperature Rating ¹	Maximum Ambient Ceiling Temperature ²	Bulb Color
Ordinary	135 °F (57 °C)	100 °F (38 °C)	Orange
Ordinary	155 °F (68 °C)	100 °F (38 °C)	Red
Intermediate	175 °F (79 °C)	150 °F (65 °C)	Yellow
Intermediate	200 °F (93 °C)	150 °F (65 °C)	Green
High	286 °F (141 °C)	225 °F (107 °C)	Blue

Sprinkler Finishes: Brass, Chrome, White Polyester, Black Polyester, and ENT

Corrosion-Resistant Coatings³: White Polyester, Black Polyester and ENT. ENT in all temperature ratings except 135 °F (57 °C)

Footnotes

¹ The sprinkler temperature rating is stamped on the deflector.

² Based on NFPA-13. Other limits may apply, depending on fire loading, sprinkler location, and other requirements of the Authority Having Jurisdiction. Refer to specific installation standards.

³ The corrosion-resistant coatings have passed the standard corrosion test required by the approving agencies indicated on pages 51c-e. These tests cannot and do not represent all possible corrosive environments. Prior to installation, verify through the end-user that the coatings are compatible with or suitable for the proposed environment. For automatic sprinklers, the coatings indicated are applied to the exposed exterior surfaces only. Note that the spring is exposed on sprinklers with Polyester, ENT, and PTFE coatings. For ENT coated automatic sprinklers, the waterway is coated.



Figure 1: Sprinkler Wrench

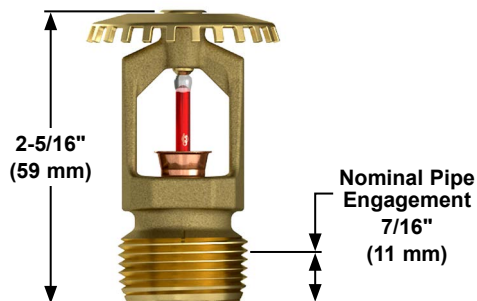


Figure 2: Sprinkler Dimensions



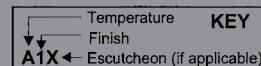
TECHNICAL DATA

MICROFAST® QUICK RESPONSE UPRIGHT SPRINKLER VK350 (K8.0)

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058
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Approval Chart 1 (UL)

Microfast® Quick Response
 Upright Sprinkler VK350
 Maximum 175 PSI (12 bar) WWP



Base Part Number ¹	SIN	Thread Size		Nominal K-Factor		Overall Length		Listings and Approvals ³ (Refer also to Design Criteria.)				
		NPT	BSP	U.S.	metric ²	Inches	mm	cULus ⁴	VdS	LPCB	CE	CCC ⁵
18257	VK350	3/4"	--	8.0	115.2	2-5/16	59	A1, B2	A1	A1	B1 ⁷	--
18278	VK350	--	20 mm	8.0	115.2	2-5/16	59	A1, B2	A1	A1	B1 ⁷	--
18259 ⁹	VK350	1/2"	15 mm	8.0	115.2	2-5/16	59	A1, B2	A1	--	B1 ⁸	--
20382	VK350	3/4"	--	8.0	115.2	2-5/16	59	--	--	--	--	C3
20237	VK350	--	20 mm	8.0	115.2	2-5/16	59	--	--	--	--	C3
NOTICE - Product Below - Limited Availability (Contact Local Viking Office)												
06665B	VK350	3/4"	--	8.0	115.2	2-5/16	59	A1, B2	A1	A1	B1 ⁷	--
14817	VK350	--	20 mm	8.0	115.2	2-5/16	59	A1, B2	A1	A1	B1 ⁷	--
06764B ⁹	VK350	1/2"	15 mm	8.0	115.2	2-5/16	59	A1, B2	A1	--	A1 ⁸	--
Approved Temperature Ratings A - 135 °F (57 °C), 155 °F (68 °C), 175 °F (79 °C), 200 °F (93 °C), and 286 °F (141°C) B - 155 °F (68 °C), 175 °F (79 °C), 200 °F (93 °C), and 286 °F (141°C) C - 155 °F (68 °C)								Approved Finishes 1 - Brass, Chrome, White Polyester ^{5,6} , and Black Polyester ^{5,6} 2 - ENT ⁵ 3 - Chrome				

Footnotes

- ¹ Base part number is shown. For complete part number, refer to Viking's current price schedule.
² Metric K-factor measurement shown is when pressure is measured in Bar. When pressure is measured in kPa, divide the metric K-factor shown by 10.0.
³ This table shows the listings and approvals available at the time of printing. Check with the manufacturer for any additional approvals.
⁴ Listed by Underwriters Laboratories Inc. for use in the U.S. and Canada.
⁵ cULus Listed as corrosion resistant.
⁶ Other colors are available on request with the same Listings and Approvals as the standard colors.
⁷ CE Certified, Standard EN 12259-1, EC-certificate of conformity 0832-CPD-2001 and 0832-CPD-2003.
⁸ CE Certified, Standard EN 12259-1, EC-certificate of conformity 0786-CPD-40278.
⁹ The 1/2" NPT Large Orifice Sprinkler is listed and approved for retrofit only when installed in accordance with NFPA 13.

DESIGN CRITERIA - UL

(Also refer to Approval Chart 1)

cULus Listing Requirements:

The Microfast® Quick Response Upright Sprinkler VK350 is cULus Listed as indicated in Approval Chart 1 for installation in accordance with the latest edition of NFPA 13 for standard spray sprinklers.

- Designed for use in Light and Ordinary Hazard occupancies.
- The sprinkler installation rules contained in NFPA 13 for standard spray upright sprinklers must be followed.

IMPORTANT: Always refer to Bulletin Form No. F_091699 - Care and Handling of Sprinklers. Also refer to Bulletin Form No. F_080614 for general care, installation, and maintenance information. Viking sprinklers are to be installed in accordance with the latest edition of Viking technical data, the appropriate standards of NFPA, LPCB, APSAD, VdS or other similar organizations, and also with the provisions of governmental codes, ordinances, and standards, whenever applicable.



TECHNICAL DATA

MICROFAST® QUICK RESPONSE UPRIGHT SPRINKLER VK350 (K8.0)

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058

Telephone: 269-945-9501 Technical Services: 877-384-5464 Fax: 269-818-1680 Email: techsvcs@vikingcorp.com

Visit the Viking website for the latest edition of this technical data page: www.vikinggroupinc.com

Approval Chart 2 (FM)

Microfast® Quick Response
Upright Sprinkler VK350
Maximum 175 PSI (12 bar) WWP

KEY	
Temperature	Finish
A1X	Escutcheon (if applicable)

Base Part Number ¹	SIN	Thread Size		Nominal K-Factor		Overall Length		FM Approvals ³ (Refer also to Design Criteria below.)
		NPT	BSP	U.S.	metric ²	Inches	mm	
18257	VK350	3/4"	--	8.0	115.2	2-5/16	59	A1, B2
18278	VK350	--	20 mm	8.0	115.2	2-5/16	59	A1, B2
18259 ⁵	VK350	1/2"	15 mm	8.0	115.2	2-5/16	59	A1, B2
NOTICE - Product Below - Limited Availability (Contact Local Viking Office)								
06665B	VK350	3/4"	--	8.0	115.2	2-5/16	59	A1, B2
14817	VK350	--	20 mm	8.0	115.2	2-5/16	59	A1, B2
06764B ⁵	VK350	1/2"	15 mm	8.0	115.2	2-5/16	59	A1, B2

Approved Temperature Ratings

A - 135 °F (57 °C), 155 °F (68 °C), 175 °F (79 °C), 200 °F (93 °C), and 286 °F (141°C)
B - 155 °F (68 °C), 175 °F (79 °C), 200 °F (93 °C), and 286 °F (141°C)

Approved Finishes

1 - Brass, Chrome, White Polyester⁴, and Black Polyester⁴
2 - ENT⁶

Footnotes

¹ Base part number is shown. For complete part number, refer to Viking's current price schedule.

² Metric K-factor measurement shown is when pressure is measured in Bar. When pressure is measured in kPa, divide the metric K-factor shown by 10.0.

³ This table shows the FM Approvals available at the time of printing. Check with the manufacturer for any additional approvals.

⁴ Other colors are available on request with the same Approvals as the standard colors.

⁵ The 1/2" NPT Large Orifice Sprinkler is listed and approved for retrofit only when installed in accordance with NFPA 13.

⁶ FM approved as corrosion proofing for corrosive environments.

DESIGN CRITERIA - FM

(Also refer to Approval Chart 2 above.)

FM Approval Requirements:

The Microfast® Quick Response Upright Sprinkler VK350 is FM Approved as a quick response **Non-Storage** upright sprinkler as indicated in the FM Approval Guide. For specific application and installation requirements, reference the latest applicable FM Loss Prevention Data Sheets (including Data Sheet 2-0). FM Global Loss Prevention Data Sheets contain guidelines relating to, but not limited to: minimum water supply requirements, hydraulic design, ceiling slope and obstructions, minimum and maximum allowable spacing, and deflector distance below the ceiling.

NOTE: The FM installation guidelines may differ from cULus and/or NFPA criteria.

IMPORTANT: Always refer to Bulletin Form No. F_091699 - Care and Handling of Sprinklers. Also refer to Bulletin Form No. F_080614 for general care, installation, and maintenance information. Viking sprinklers are to be installed in accordance with the latest edition of Viking technical data, the appropriate standards of NFPA, FM Global, LPCB, APSAD, VdS or other similar organizations, and also with the provisions of governmental codes, ordinances, and standards, whenever applicable.