

# Enardo FVFA Series

Free Vent Flame Arrestor

## Introduction

Enardo™ FVFA Series free vent flame arrestors are designed to allow free venting in combination with flame protection for vertical vent applications. This product is installed at the top of an atmospheric vent line or storage tank. They prevent flame propagation by absorbing and dissipating heat using spiral wound crimped ribbon flame cells. These cells allow maximum flow with maximum protection. The FVFA is used to stop the propagation of confined and unconfined low pressure deflagrations. It prevents an ignited atmospheric vapor cloud from propagating beyond the flame arrestor into the vent line or tank.

FVFA's are typically used for the end of line applications when the system operating pressure is near atmospheric levels and when there is minimal probability of a flame stabilizing on the flame arrestor element for an extended period.

Free vent flame arrestors allow free venting and flame protection for vertical vent applications. Designed with flanged connections, this arrestor allows removal of the flame cell element without their removal of the venting assembly. Standard housing construction is aluminum, carbon steel and stainless steel. The element is available in aluminum or stainless steel. Special material and protective coatings are available on request.

ISO-16852 Certified 2 to 12 in. / 50 to 300 mm IIA (D) and IIB3 (C).



Figure 1. Enardo FVFA

## Models and Connection Sizes Available

### FVFA:

3/4 through 36 in. / 20 through 900 mm

### EN FVFA-ISO 16852 Approved:

2 to 12 in. / 50 to 300 mm

## Construction Materials

**Housing:** Aluminum, Carbon steel, 304 Stainless steel, 316 Stainless steel and Hastelloy®

**Cell:** Aluminum, 304 Stainless steel, 316 Stainless steel and Hastelloy®

## Gas Group

D (IIA), C (IIB3) and B (IIC)

## Additional Technical Data

For more technical information, contact your local Sales Office or log on to:

[www.enardo.com](http://www.enardo.com)

## Features

- Maximum Flow
- Less Pressure Drop
- Easy Cleaning
- Less Clogging
- Less Maintenance
- Single Element Design
- Fluoropolymer Coated Hardware Provides Outstanding Corrosion and Chemical Resistance
- Easy Accessible and Removable Flame Cell for Easy Inspection and Service
- Standard Temperature Probe on EN Models
- Flanged Design Available in ANSI, DIN and JIS Flanges

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## Free Vent Flame Arrestor

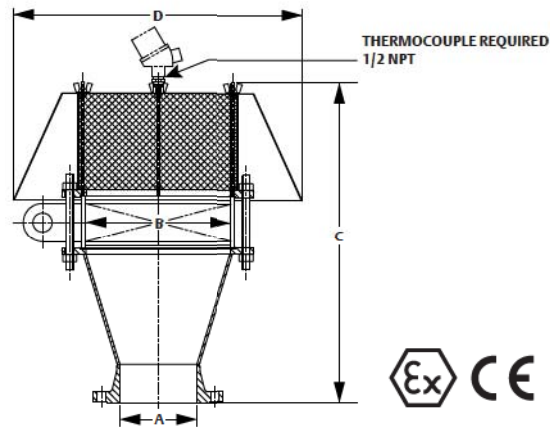


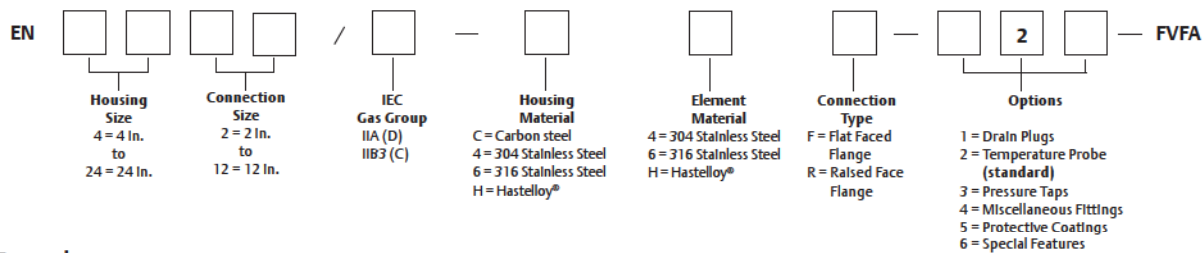
Figure 2. Enardo™ EN FVFA Dimensions

Table 1. Enardo EN FVFA Dimensions<sup>(1)</sup>

MODEL	A (NOMINAL CONNECTION SIZE)		B (HOUSING SIZE)		C (HEIGHT)		D (OUTSIDE DIAMETER)		APPROXIMATE WEIGHT	
	In.	mm	In.	mm	In.	mm	In.	mm	Lb	kg
Enardo EN 0402	2	50	4	100	16.94	430	12	305	59.5	27
Enardo EN 0602	2	50	6	150	18	457	18	457	62	28.5
Enardo EN 0603	3	75	6	150	18	457	18	457	66	30
Enardo EN 0803	3	75	8	200	17.13	455	18	457	80	36.3
Enardo EN 0804	4	100	8	200	18.13	460	18	457	90	41
Enardo EN 1204	4	100	12	300	24.5	622	22	559	142	64.4
Enardo EN 1206	6	150	12	300	25	635	22	559	450	68
Enardo EN 1606	6	150	16	400	32.88	822	30	762	287	130
Enardo EN 1608	8	200	16	400	33.38	848	30	762	298	135
Enardo EN 2008	8	200	20	500	35.75	908	36	914	434	197
Enardo EN 2010	10	250	20	500	35.75	908	36	914	443	201
Enardo EN 2410	10	250	24	600	39	990	44	1118	653	296
Enardo EN 2412	12	300	24	600	39.5	1005	44	1118	675	306

1. Dimensions may vary somewhat from those given above. Allow for a tolerance of ± 1.00 In. / 25 mm. Specific dimensions available on request.

### Key to Enardo EN FVFA Model Number



### Example:

EN [2] [0] [1] [0] / [IIA] — [C] [4] [R] — [2] [5] [ ] — FVFA

Indicates a Free Vent Flame Arrestor with a 20 in. Carbon steel housing and 10 in. raised faced flange connection and a 304 Stainless steel IEC Group “IIA” flame cell element. It also has an additional option of a protective coating for corrosive service and standard temperature probe.

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# Enardo FVFA Series

## Free Vent Flame Arrestor

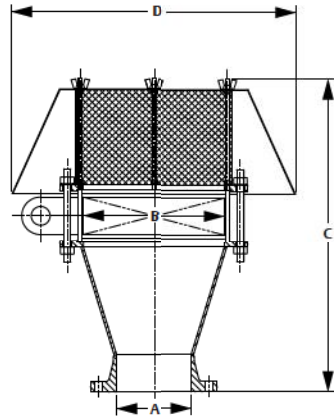


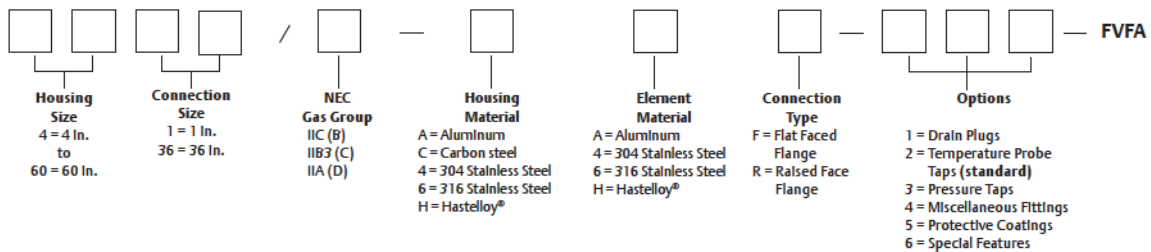
Figure 3. Standard Enardo™ FVFA Dimensions

Table 2. Standard Enardo FVFA Dimensions<sup>(1)</sup>

MODEL	A (NOMINAL CONNECTION SIZE)		B (HOUSING SIZE)		C (HEIGHT)		D (OUTSIDE DIAMETER)		APPROXIMATE WEIGHT	
	In.	mm	In.	mm	In.	mm	In.	mm	Lb	kg
Enardo 401	1	25	4	100	16.63	422	12	305	50	23
Enardo 402	2	50	4	100	17	432	12	305	52	23.5
Enardo 602	2	50	6	150	18	457	18	457	54	24.5
Enardo 802	2	50	8	200	18	457	18	457	77	34.9
Enardo 803	3	75	8	200	18	457	18	457	81	36.7
Enardo 804	4	100	8	200	18	457	18	457	86	39.0
Enardo 1206	6	150	12	300	25.00	635	22	559	149	67.6
Enardo 1608	8	200	16	400	33.38	848	30	762	243	110.2
Enardo 2010	10	250	20	500	35.75	908	36	914	360	163.3
Enardo 2412	12	300	24	600	39.50	1003	44	1118	549	249.0

1. 14 to 36 In. / 350 to 900 mm and over – Dimensions available on request. Dimensions may vary somewhat from those given above. Allow for a tolerance of ±1.00 In. / 25 mm. Specific dimensions available on request.

### Key to Enardo FVFA Model Number



### Example:

2 0 1 0 / D — A 4 F — 5 — **FVFA**

Indicates a Free Vent Flame Arrestor with a 20 in. Aluminum housing and 10 in. flat faced flange connection and a 304 Stainless steel NEC Group “D” flame cell element. It also has an additional option of a protective coating for corrosive service.

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