

Enardo 7 Series

Deflagration Flame Arrestor

Introduction

Enardo™ 7 Series deflagration flame arrestors are designed to stop the propagation of confined low pressure deflagrations. The Enardo 7 Series is typically used for end-of-line and near 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.

The Enardo 7 Series prevents flame propagation by absorbing and dissipating heat using spiral wound crimped ribbon flame cells. These cells allow maximum flow with maximum protection.

Designed with flanged connections, this arrestor allows removal of the flame cell element for easy cleaning and replacement without removing the arrestor body from the pipe connection. 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 1 in. / 25 mm through 12 in. / 300 mm, D (IIA) and C (IIB3).

Factory Mutual Approved 2 in. / 50 mm through 12 inches / 300 mm, D (IIA).



Figure 1. Enardo 7 Series

Models and Available Sizes

Enardo 7 Series Deflagration Flame Arrestor: 1 to 36 in. / 25 to 900 mm

Enardo EN-7 Series ISO-16852 Certified: 1 to 12 in. / 25 to 300 mm⁽¹⁾

Enardo 7 Series Factory Mutual 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, Hastelloy® and Exotic

Gas Group

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

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
- Bi-directional Design
- Standard Temperature Probe on EN Models
- Available in ANSI, DIN and JIS Flanges



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EN Certified Model

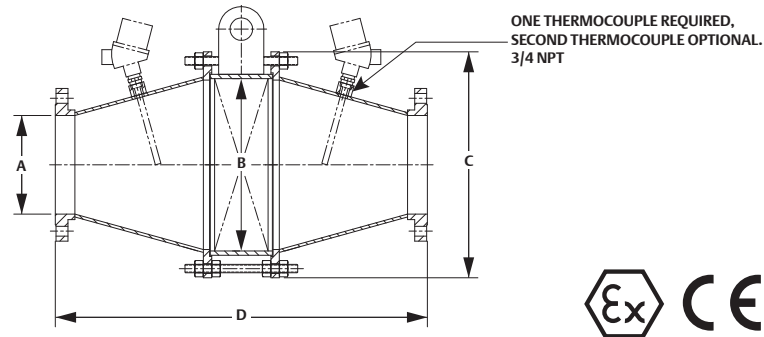
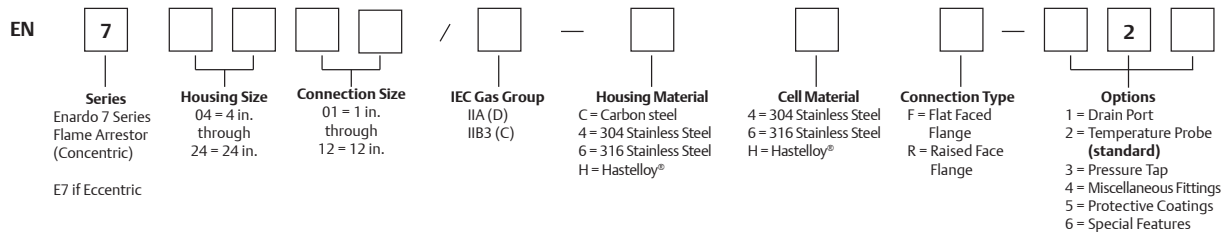


Figure 2. Enardo™ EN-7 Series Flame Arrestor Dimensions

| MODEL | A (NOMINAL CONNECTION SIZE) | | B (HOUSING SIZE) | | C (OUTSIDE DIAMETER) | | D (OVERALL LENGTH) | | APPROXIMATE WEIGHT | |
|-----------------|--------------------------------|-----|---------------------|-----|-------------------------|-----|-----------------------|------|--------------------|------|
| | In. | mm | In. | mm | In. | mm | In. | mm | Lbs | kg |
| Enardo EN-70402 | 2 | 50 | 4 | 100 | 7.75 | 197 | 15.25 | 387 | 65 | 29.5 |
| Enardo EN-70602 | 2 | 50 | 6 | 150 | 10.25 | 260 | 16 | 406 | 68 | 31 |
| Enardo EN-70603 | 3 | 75 | 6 | 150 | 10.25 | 260 | 16 | 406 | 72 | 32.5 |
| Enardo EN-70803 | 3 | 75 | 8 | 200 | 12 | 305 | 16 | 406 | 95 | 43 |
| Enardo EN-70804 | 4 | 100 | 8 | 200 | 12 | 305 | 16 | 406 | 101 | 46 |
| Enardo EN-71204 | 4 | 100 | 12 | 300 | 16 | 406 | 21 | 533 | 168 | 76 |
| Enardo EN-71206 | 6 | 150 | 12 | 300 | 16 | 406 | 21 | 533 | 181 | 82 |
| Enardo EN-71606 | 6 | 150 | 16 | 400 | 20 | 508 | 33 | 838 | 278 | 126 |
| Enardo EN-71608 | 8 | 200 | 16 | 400 | 20 | 508 | 33 | 838 | 298 | 135 |
| Enardo EN-72008 | 8 | 200 | 20 | 500 | 24 | 610 | 38 | 965 | 386 | 175 |
| Enardo EN-72010 | 10 | 250 | 20 | 500 | 24 | 610 | 38 | 965 | 443 | 201 |
| Enardo EN-72410 | 10 | 250 | 24 | 600 | 29 | 737 | 41 | 1041 | 622 | 282 |
| Enardo EN-72412 | 12 | 300 | 24 | 600 | 29 | 737 | 41 | 1041 | 672 | 305 |

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-7 Series Flame Arrestor Model Number



Example:



Indicates a 10 in. Concentric Enardo EN-7 Series Deflagration Flame Arrestor with a 20 in. Carbon steel housing. ANSI 150 lbs. raised faced flange connections and 304 Stainless steel IEC Group "IIA" flame cell element. It also has additional options of drain plugs and standard temperature probe.



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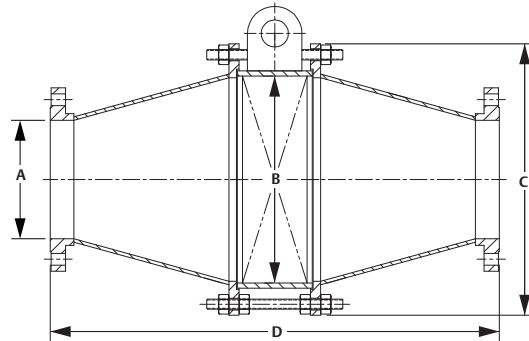
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Enardo 7 Series

Deflagration Flame Arrestor

Carbon Steel and Stainless Steel Housings



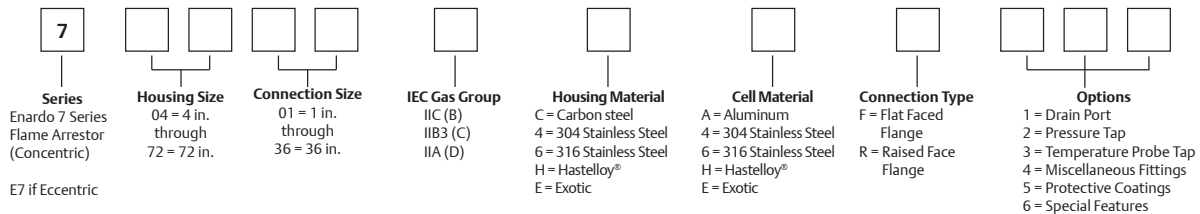
*Not all models are available with FM approval. Consult Flame Arrester Certifications page for more information.

Figure 3. Standard Enardo™ 7 Series Flame Arrester Dimensions

| MODEL | A (NOMINAL CONNECTION SIZE) | | B (HOUSING SIZE) | | C (OUTSIDE DIAMETER) | | D (OVERALL LENGTH) | | APPROXIMATE WEIGHT (GROUP D MODELS) | |
|--------------|--------------------------------|-----|---------------------|-----|-------------------------|-----|-----------------------|------|--|-------|
| | In. | mm | In. | mm | In. | mm | In. | mm | Lbs | kg |
| Enardo 70401 | 1 | 25 | 4 | 100 | 7.75 | 197 | 15.63 | 397 | 60 | 27 |
| Enardo 70402 | 2 | 50 | 4 | 100 | 7.75 | 197 | 15.25 | 387 | 63 | 29 |
| Enardo 70602 | 2 | 50 | 6 | 150 | 10.25 | 260 | 16 | 406 | 66 | 30 |
| Enardo 70802 | 2 | 50 | 8 | 200 | 12 | 305 | 16 | 406 | 85 | 38.6 |
| Enardo 70603 | 3 | 75 | 6 | 150 | 10.25 | 260 | 16 | 406 | 70 | 31.8 |
| Enardo 70803 | 3 | 75 | 8 | 200 | 12 | 305 | 16 | 406 | 90 | 40.8 |
| Enardo 70804 | 4 | 100 | 8 | 200 | 12 | 305 | 16 | 406 | 95 | 43.1 |
| Enardo 71006 | 6 | 150 | 10 | 250 | 14 | 356 | 21 | 533 | 135 | 61.2 |
| Enardo 71206 | 6 | 150 | 12 | 300 | 16 | 406 | 21 | 533 | 165 | 74.8 |
| Enardo 71408 | 8 | 200 | 14 | 350 | 18 | 457 | 25 | 635 | 225 | 102.1 |
| Enardo 71608 | 8 | 200 | 16 | 400 | 20 | 508 | 33 | 838 | 270 | 122.5 |
| Enardo 71810 | 10 | 250 | 18 | 450 | 22 | 559 | 30 | 762 | 335 | 152.0 |
| Enardo 72010 | 10 | 250 | 20 | 500 | 24 | 610 | 38 | 965 | 400 | 181.4 |
| Enardo 72212 | 12 | 300 | 22 | 550 | 26 | 660 | 34 | 863 | 477 | 216 |
| Enardo 72412 | 12 | 300 | 24 | 600 | 29 | 737 | 41 | 1041 | 590 | 268 |

1. 14 inches to 36 in. 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 7 Series Flame Arrester Model Number



Example:



Indicates a 10 in. Concentric Enardo 7 Series Deflagration Flame Arrestor with a 20 in. Carbon steel housing, ANSI 150 lbs. raised faced flange connections and 304 S stainless steel NEC Group “D” flame cell element. It also has additional options of drain plugs and temperature probe taps.



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Aluminum Housing

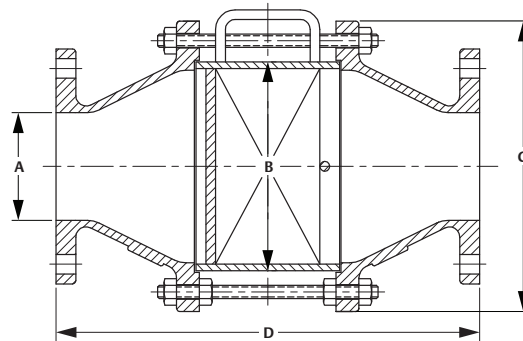


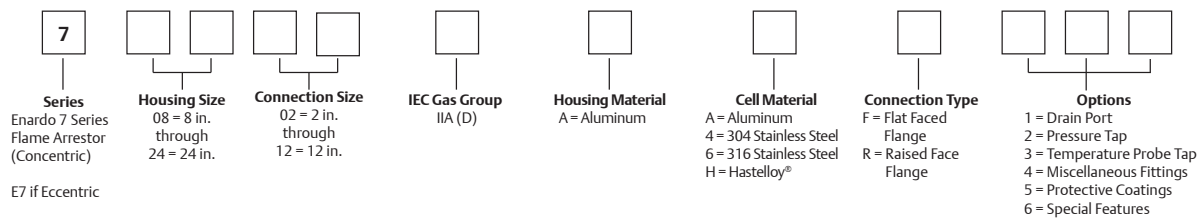
Figure 4. Cast Aluminum Enardo™ 7 Series Flame Arrestor Dimensions

Table 3. Cast Aluminum Enardo 7 Series Flame Arrestor Dimensions⁽¹⁾

| MODEL | A (NOMINAL CONNECTION SIZE) | | B (HOUSING SIZE) | | C (OUTSIDE DIAMETER) | | D (OVERALL LENGTH) | | APPROXIMATE WEIGHT WITH ALUMINUM CELL (GROUP D MODELS) | | APPROXIMATE WEIGHT WITH STAINLESS STEEL CELL (GROUP D MODELS) | |
|--------------|--------------------------------|-----|---------------------|-----|-------------------------|-----|-----------------------|------|--|------|---|-------|
| | In. | mm | In. | mm | In. | mm | In. | mm | Lbs | kg | Lbs | kg |
| Enardo 70802 | 2 | 50 | 8 | 200 | 11.13 | 283 | 16.50 | 419 | 24 | 10.9 | 33 | 15.0 |
| Enardo 70803 | 3 | 75 | 8 | 200 | 11.13 | 283 | 16.50 | 419 | 27 | 12.2 | 36 | 16.3 |
| Enardo 70804 | 4 | 100 | 8 | 200 | 11.13 | 283 | 16.50 | 419 | 31 | 14.1 | 40 | 18.1 |
| Enardo 71006 | 6 | 150 | 10 | 250 | 13.13 | 334 | 21.50 | 546 | 46 | 20.9 | 73 | 33.1 |
| Enardo 71206 | 6 | 150 | 12 | 300 | 15.13 | 384 | 21.50 | 546 | 60 | 27.2 | 85 | 38.6 |
| Enardo 71408 | 8 | 200 | 14 | 350 | 17.13 | 435 | 25.63 | 651 | 80 | 36.3 | 113 | 51.3 |
| Enardo 71608 | 8 | 200 | 16 | 400 | 19.13 | 486 | 25.50 | 648 | 95 | 43.1 | 138 | 62.6 |
| Enardo 72010 | 10 | 250 | 20 | 500 | 24.38 | 619 | 30.63 | 778 | 180 | 81.6 | 245 | 111.1 |
| Enardo 72212 | 12 | 300 | 22 | 550 | 26 | 660 | 34 | 863 | 190 | 86 | 255 | 116 |
| Enardo 72412 | 12 | 300 | 24 | 600 | 29 | 737 | 41 | 1041 | 230 | 104 | 315 | 143 |

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 Cast Aluminum Enardo 7 Series Flame Arrestor Model Number



Example:



Indicates a Concentric Enardo 7 Series Deflagration Flame Arrestor with a 20 in. Aluminum housing, ANSI 10 in. flat faced flange connections and 304 Stainless steel NEC Group "D" flame cell element. It also has additional options of drain plugs and temperature probe taps.



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