



## Data Sheet

### ***AseptiVent® VF-γ***

## **Gamma Irradiatable PVDF Capsule Filters for Sterile Filtration of Air/Gases in Biopharmaceuticals**

Biopharmaceutical manufacturing involves sterile filtration of air and gases for a multitude of critical processes such as air sparging, bioreactor venting, fermentor exhaust etc. The critical nature of biopharmaceutical processes and associated high costs require the highest degree of reliability for the filter device with regard to its retention efficiency, flow rates, service life and mechanical and thermal stability.

In order to do away with validation, energy and cleaning costs associated with reusable process assemblies and bioreactors, biopharma industry is moving towards single use disposable systems. Gamma sterilizable hydrophobic membrane filter devices offering high quality and reliability have become a necessity.

**mdi** gamma sterilizable *AseptiVent® VF-γ* hydrophobic PVDF membrane capsule filters with a wide range of end connections and different sizes for linear scalability are specially designed for use with disposable single use assemblies for biopharmaceutical processes.

These filters are validated for microbial retention with liquid bacterial challenge test to ensure reliable performance under worst case conditions.

### **Applications**

- Sterile air sparging
- Sterile venting
- Fermentor exhaust

### **Key Features**

- Absolute retention
- 100% integrity tested
- High hydrophobicity
- High air flow rates
- Low Bioburden, <1000 cfu/device
- Endotoxin level certified to be <0.25 EU/ml
- Widest range of end connections
- Products available for total scalability from seed reactors to process scale bioreactors/fermentors
- Total traceability (unique serial number for each filter)
- Individual certificate of quality for each device
- Sterilizable by Gamma irradiation

## Quality Assurance

**mdi** quality management system emphasizes on quality by design rather than by end product testing. Robust processes are developed for product manufacturing and are continuously monitored to ensure that the products meet their predetermined specifications and lot to lot reproducibility is ensured.

### Certificate of Quality

Each *AseptiVent® VF-γ* is accompanied by individual certificate of quality to ensure traceable documentation at user's end.

It certifies the product compliance to various regulatory as well as user requirements.

### Validated for Microbial Retention

Even though *AseptiVent® VF-γ* is used for air/gas filtration, it is validated by liquid bacterial challenge test to subject the filter to most stringent conditions for higher degree of assurance.

Integrity test data have been correlated to actual microbial retention with *Brevundimonas diminuta* ATCC 19146 as per ASTM F838 to establish acceptable integrity test values.

Samples from each lot are subjected to microbial challenge test before final lot release.

### 100% Integrity Tested

Each *AseptiVent® VF-γ* capsule filter is tested for integrity to comply with validated Acceptable Integrity Test Specifications.

### Pressure, Temperature Endurance

*AseptiVent® VF-γ* capsule filters are validated to endure high operating pressure and temperature conditions which may be encountered during use.

These filters are also validated to meet pre-determined burst pressure specifications to ensure user safety in case of inadvertent pressure build-up.

### Bioburden Testing

Device bioburden is tested as per ISO 11737-1 and assured to be <1000 cfu/device.

### Endotoxin Testing

Aqueous extracts exhibit <0.25 EU/ml as established by *Lumulus Amebocyte Lysate* (LAL) test.

### Gamma Sterilizability

*AseptiVent® VF-γ* are gamma sterilizable with up to 50 kGy of gamma irradiation.

### Total Traceability

*AseptiVent® VF-γ* capsule filters come with completely traceable lot numbers and unique identification number to facilitate easy and fast retrieval of manufacturing and quality control data associated with each filter.

These unique lot and identification numbers are laser etched on each filter device and also printed on the labels of the box in which individual filter is packed.

### Packaging Integrity

*AseptiVent® VF-γ* capsule filters are fitted with vent caps and are packed in double polyethylene bags to ensure package integrity during transit as well as to prevent particulate contamination while transferring to clean room assembly or process areas.

### Other Regulatory Compliance

- Complies with USFDA 21 CFR 210.3(b)(6) for fiber release
- Complies with USFDA 21 CFR 177.1520 for indirect food additives
- Materials of construction tested for toxicity as per Biological Reactivity Tests, In vivo, USP <88> for class VI Plastics

## Widest Range of End Connections

Critical nature of biopharmaceutical processes involving steps such as sterile venting, air sparging, fermentor exhaust etc requires high quality, reliable, flexible and functionally convenient connectivity with filters.

**mdi** filters offer a wide range of reliable end connections for functional convenience and customized connectivity.

## Validated for Performance

These end connections are manufactured with tight dimension tolerance and are validated for strength and connection integrity under extreme use conditions as well as for their ability to withstand prevalent sterilization methods including gamma irradiation and autoclaving.



**3/4" Sanitary Flange**



**1 1/2" Sanitary Flange**



**1/2" HB**



**1/2" Single Stepped HB**



**1/4" SHB**



**Quick Connector**



**Male Luer Slip Outlet  
for 25 mm**



**Female Luer Lock Inlet  
for 25 mm**

Some end connections  
available with **AseptiVent® VF-γ**

## Customized Connectivity

**mdi** filters are available in a wide range of end connections and are also customized to offer different inlet-outlet combinations to meet the unique connectivity needs in biopharmaceutical process assemblies where, for example, stainless steel components with sanitary flange connections are sometimes required to be connected to single use disposable systems through quick-connectors or hose barb connections.



**1 1/2" Sanitary Flange  
to 1/2" Barb Hose**

**1 1/2" Sanitary Flange  
to 3/4" Sanitary Flange**



**HighSecurity  
1/2" hose barb connection**

# Linear Upscaling from R&D to Production Process

## Datasheet

Scientists in process development labs working with cell factories or small bioreactors require small area hydrophobic filters for air/gas filtration or sterile venting.

A scale up of these processes for larger productions requires larger area devices.

**mdi** offers a wide range of *AseptiVent® VF-γ* Hydrophobic PVDF capsule filters to provide linear scale up from lab scale to pilot scale to full scale biopharmaceutical manufacturing processes. The appropriate size filter can be selected on the basis of the bioreactor size and required flow rates.



*AseptiVent® VF-γ*  
25 mm, 5 cm<sup>2</sup>



*AseptiVent® VF-γ*  
50 mm, 20 cm<sup>2</sup>



*AseptiVent® VF-γ*  
1", 250 cm<sup>2</sup>



*AseptiVent® VF-γ*  
2", 500 cm<sup>2</sup>



*AseptiVent® VF-γ*  
5", 1000 cm<sup>2</sup>



*AseptiVent® VF-γ*  
8", 2000 cm<sup>2</sup>

| Bioreactor Size              | Filter Devices                | EFA* (Nominal)       |
|------------------------------|-------------------------------|----------------------|
| 200 ml Cell Factories        | <i>AseptiVent® VF-γ</i> 25 mm | 5 cm <sup>2</sup>    |
| Up to 1 liter Cell Factories | <i>AseptiVent® VF-γ</i> 37 mm | 10 cm <sup>2</sup>   |
| Up to 5 liter                | <i>AseptiVent® VF-γ</i> 50 mm | 20 cm <sup>2</sup>   |
| Up to 50 liter               | <i>AseptiVent® VF-γ</i> 1"    | 250 cm <sup>2</sup>  |
| Upto 100 liter               | <i>AseptiVent® VF-γ</i> 2"    | 500 cm <sup>2</sup>  |
| Upto 300 liter               | <i>AseptiVent® VF-γ</i> 5"    | 1000 cm <sup>2</sup> |
| Upto 1000 liter              | <i>AseptiVent® VF-γ</i> 8"    | 2000 cm <sup>2</sup> |
| Upto 5000 liter              | <i>AseptiVent® VF-γ</i> 10"   | 6000 cm <sup>2</sup> |



*AseptiVent® VF-γ*  
10", 6000 cm<sup>2</sup>

**\*Effective Filtration Area**

# Specifications

## 0.2µm AseptiVent® VF-γ

# Datasheet

### Construction

|                                     |                            |                    |                    |
|-------------------------------------|----------------------------|--------------------|--------------------|
| Size                                | 25 mm                      | 37 mm              | 50 mm              |
| Effective Filtration Area (Nominal) | 5 cm <sup>2</sup>          | 10 cm <sup>2</sup> | 20 cm <sup>2</sup> |
| Membrane                            | 0.2 µm Hydrophobic PVDF    |                    |                    |
| Support Layers                      | Polyester                  |                    |                    |
| Plastic Parts                       | Gamma Stable Polypropylene |                    |                    |
| Operational Radius                  | 15 mm                      | 23 mm              | 28 mm              |

### Operational

|  |   |
|--|---|
| Max. Operating Temperature                         | 80° C @ ≤ 0.5 Kg/cm <sup>2</sup> (7psi)   |
| Max. Differential Pressure                         | 1.5 Kg/cm <sup>2</sup> (22 psi) @ 30° C   |
| Minimum Acceptable Bubble Point with 50% IPA/Water | ≥ 1.27 Kg/cm <sup>2</sup> (18 psi)  |
| Sterilization By Gamma Irradiation                 | Gamma Irradiatable up to 50 kGy.<br>These filters must not be autoclaved or in-line steam sterilized. |

### Assurance

|                             |   |
|-----------------------------|---|
| Toxicity                    | Passes biological reactivity test, In Vivo, as per USP <88> for Class VI plastics                           |
| Bioburden                   | Bioburden level is < 1000 cfu/filter device as per ISO 11737-1  |
| Bacterial Retention         | LRV> 7 for <i>B. diminuta</i> per cm <sup>2</sup> of filter area as per ASTM F 838                          |
| Bacterial Endotoxin         | Aqueous extracts exhibit < 0.25 EU/ml as established by Limulus Amebocyte Lysate (LAL) Test as per USP <85> |
| Non Fiber Releasing         | Passes test as per USP and comply with USFDA 21 CFR Part 210.3(b)(6) for fiber release                      |
| Particle Shedding           | The filtrate complies with USP <788> test for particulate matter in injections                              |
| Oxidizable Substances       | Passes test as per USP <1231>   |
| Indirect Food Additive      | All Polypropylene components meet the FDA Indirect Food Additive requirements cited in 21 CFR 177.1520      |
| Good Manufacturing Practice | These products are manufactured in a facility which adheres to Good Manufacturing Practices                 |
| Quality Management System   | ISO-9001 Certified  |
| USFDA                       | DMF No. 015554  |

# Specifications

# Datasheet

## 0.2µm AseptiVent® VF-γ (1", 2", 5", 8")

### Construction

| Size                                  | 1"                                  | 2"                 | 5"                  | 8"                   |
|---------------------------------------|-------------------------------------|--------------------|---------------------|----------------------|
| Effective Filtration Area (Nominal)   | 250cm <sup>2</sup>                  | 500cm <sup>2</sup> | 1000cm <sup>2</sup> | 2000 cm <sup>2</sup> |
| Membrane                              | 0.2 µm Hydrophobic PVDF             |                    |                     |                      |
| Support Layers                        | Polyester                           |                    |                     |                      |
| Body and Core                         | Gamma Stable Polypropylene          |                    |                     |                      |
| Operational Radius (with Vent/ Drain) | 30 mm                               | 65 mm              | 65 mm               | 65 mm                |
| Vent and Drain                        | ¼" Hose Barb with Silicone "O" ring |                    |                     |                      |

### Operational

|  |   |
|--|---|
| Max. Operating Temperature                   | 80° C @ 2 Kg/cm <sup>2</sup> (30psi)  |
| Max. Differential Pressure                   | 4Kg/cm <sup>2</sup> (60psi) @ 30° C   |
| Minimum Acceptable Bubble Point with 50% IPA | ≥ 1.27 Kg/cm <sup>2</sup> (18 psi)  |
| Sterilization By Gamma Irradiation           | Gamma Irradiatable up to 50 kGy.<br>These filters must not be autoclaved or in-line steam sterilized. |

### Assurance

|                             |   |
|-----------------------------|---|
| Toxicity                    | Passes biological reactivity test, In Vivo, as per USP <88> for Class VI plastics                           |
| Bioburden                   | Bioburden level is < 1000 cfu/filter device as per ISO 11737-1  |
| Bacterial Retention         | LRV> 7 for <i>B. diminuta</i> per cm <sup>2</sup> of filter area as per ASTM F 838                          |
| Bacterial Endotoxin         | Aqueous extracts exhibit < 0.25 EU/ml as established by Limulus Amebocyte Lysate (LAL) Test as per USP <85> |
| Non Fiber Releasing         | Passes test as per USP and comply with USFDA 21 CFR Part 210.3(b)(6) for fiber release                      |
| Particle Shedding           | The filtrate complies with USP <788> test for particulate matter in injections                              |
| Oxidizable Substances       | Passes test as per USP <1231>   |
| Indirect Food Additive      | All Polypropylene components meet the FDA Indirect Food Additive requirements cited in 21 CFR 177.1520      |
| Good Manufacturing Practice | These products are manufactured in a facility which adheres to Good Manufacturing Practices                 |
| Quality Management System   | ISO-9001 Certified  |
| USFDA                       | DMF No. 015554  |

# Specifications

# Datasheet

## 0.2µm AseptiVent® VF-γ 5", 10", 20", 30"

### Construction

| Size                                  | 5"                                  | 10"                 | 20"                  | 30"                   |
|---------------------------------------|-------------------------------------|---------------------|----------------------|-----------------------|
| Effective Filtration Area (Nominal)   | 3000cm <sup>2</sup>                 | 6000cm <sup>2</sup> | 12000cm <sup>2</sup> | 18000 cm <sup>2</sup> |
| Membrane                              | 0.2 µm Hydrophobic PVDF             |                     |                      |                       |
| Support Layers                        | Polyester                           |                     |                      |                       |
| Body and Core                         | Gamma Stable Polypropylene          |                     |                      |                       |
| Operational Radius (with Vent/ Drain) | 78 mm                               | 78 mm               | 78 mm                | 78 mm                 |
| Vent and Drain                        | ¼" Hose Barb with Silicone "O" ring |                     |                      |                       |

### Operational

|  |   |
|--|---|
| Max. Operating Temperature                   | 80° C @ 2Kg/cm <sup>2</sup> (30psi)   |
| Max. Differential Pressure                   | 4Kg/cm <sup>2</sup> (60psi) @ 30° C   |
| Minimum Acceptable Bubble Point with 50% IPA | ≥ 1.27 Kg/cm <sup>2</sup> (18 psi)  |
| Sterilization By Gamma Irradiation           | Gamma Irradiatable up to 50 kGy.<br>These filters must not be autoclaved or in-line steam sterilized. |

### Assurance

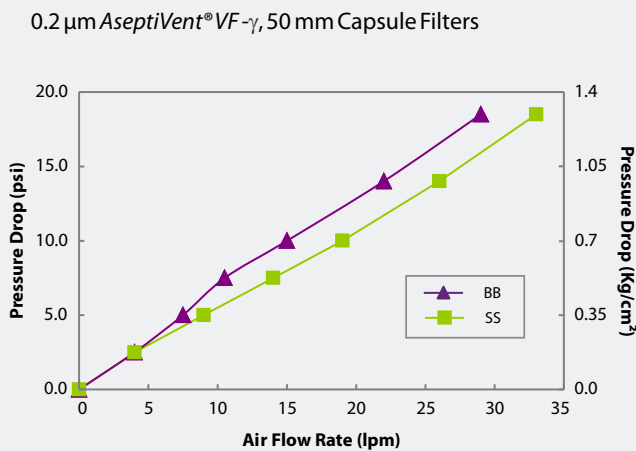
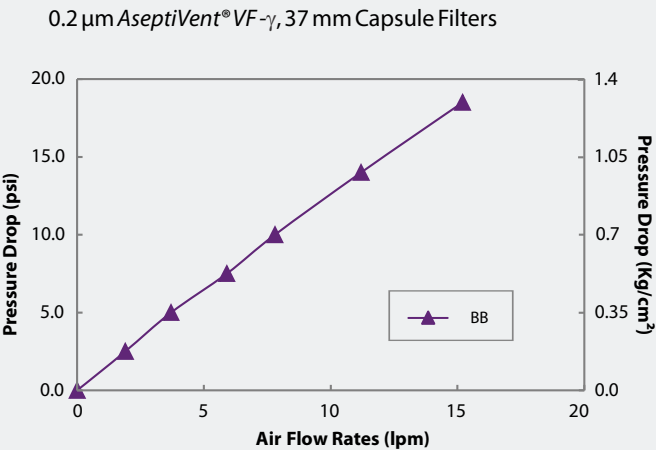
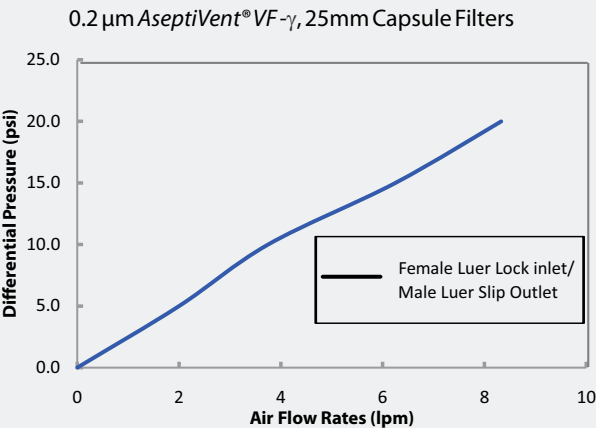
|                             |   |
|-----------------------------|---|
| Toxicity                    | Passes Biological reactivity test, In Vivo, as per USP <88> for Class VI plastics                           |
| Bioburden                   | Bioburden level is < 1000 cfu/filter device as per ISO 11737-1  |
| Bacterial Retention         | LRV> 7 for <i>B. diminuta</i> per cm <sup>2</sup> of filter area as per ASTM F 838                          |
| Bacterial Endotoxin         | Aqueous extracts exhibit < 0.25 EU/ml as established by Limulus Amebocyte Lysate (LAL) Test as per USP <85> |
| Non Fiber Releasing         | Passes test as per USP and comply with USFDA 21 CFR Part 210.3(b)(6) for fiber release                      |
| Particle Shedding           | The filtrate complies with USP <788> test for particulate matter in injections                              |
| Oxidizable Substances       | Passes test as per USP <1231>   |
| Indirect Food Additive      | All Polypropylene components meet the FDA Indirect Food Additive requirements cited in 21 CFR 177.1520      |
| Good Manufacturing Practice | These products are manufactured in a facility which adheres to Good Manufacturing Practices                 |
| Quality Management System   | ISO-9001 Certified  |
| USFDA                       | DMF No. 015554  |

# Typical Air Flow Rates

# Datasheet

AseptiVent® VF-γ is produced using a high hydrophobicity PVDF membrane. This ensures good flow rates even with high moisture content in the inlet air.

AseptiVent® VF-γ capsule filters are designed to offer high air/gas flow rates at low differential pressures.



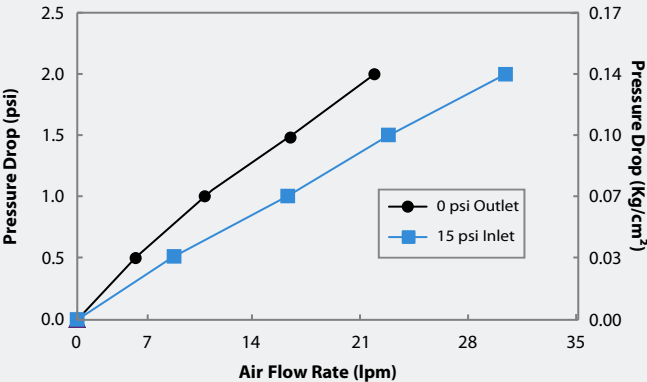
End Connection Type:      B: ¼" Stepped Hose Barb      S: ¾" Sanitary Flange      D: ½" Hose Barb



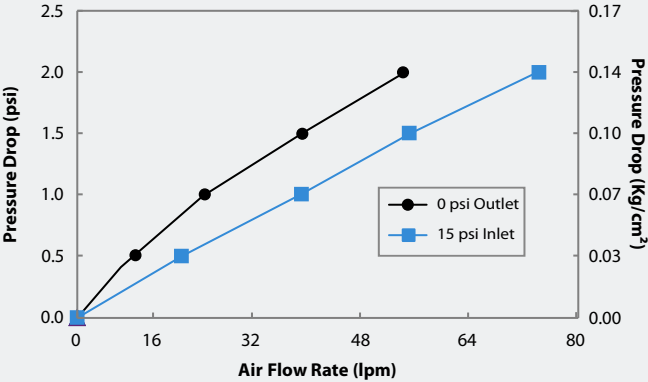
# Typical Air Flow Rates

# Datasheet

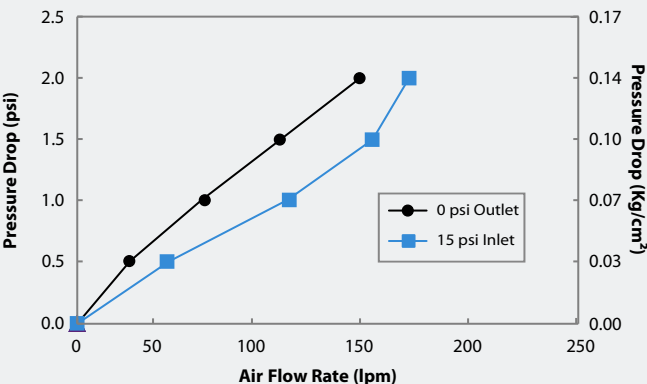
0.2 µm AseptiVent® VF-γ, 1" Capsule Filters, EE Connection



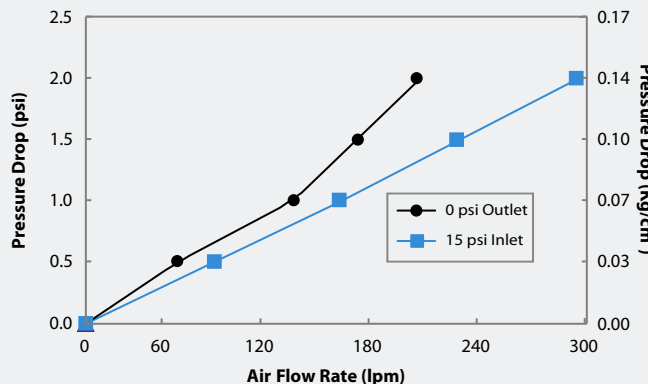
0.2 µm AseptiVent® VF-γ, 2" Capsule Filters, EE Connection



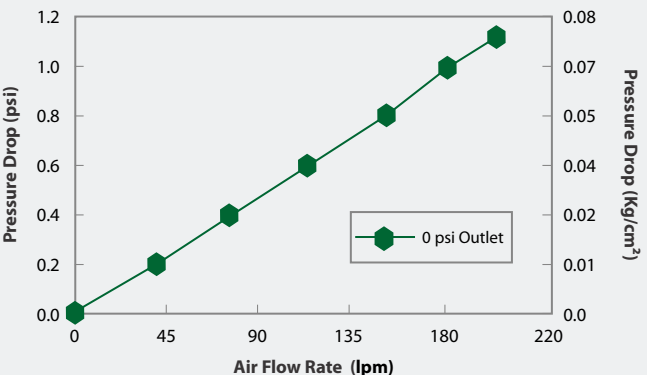
0.2 µm AseptiVent® VF-γ, 5" Capsule Filters, EE Connection



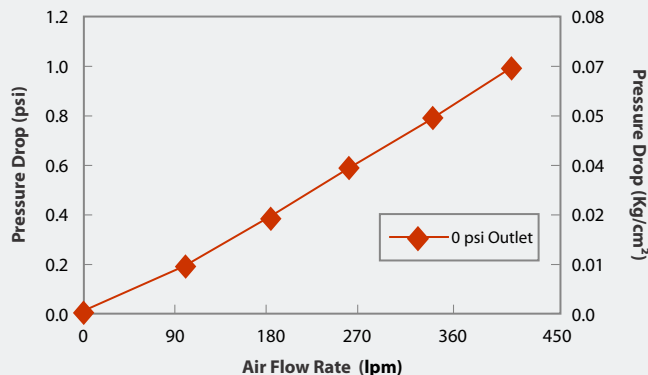
0.2 µm AseptiVent® VF-γ, 8" Capsule Filters, EE Connection



0.2 µm AseptiVent® VF-γ, 5" Large Capsule Filters, EE Connection



0.2 µm AseptiVent® VF-γ, 10" Capsule Filters, EE Connection



End Connection Type: E: 1½" Sanitary Flange

## 0.2 µm AseptiVent® VF-γ 25mm PVDF Membrane Capsule filter

| Type             |      | Size  |      | Pore Size |      | Inlet/Outlet     |      | Radiation Sterilizable |      | X | Sterility     |      | Pack Size |      |
|------------------|------|-------|------|-----------|------|------------------|------|------------------------|------|---|---------------|------|-----------|------|
|                  | Code |       | Code |           | Code |                  | Code |                        | Code |   |               | Code |           | Code |
| AseptiVent® VF-γ | IVFX | 25 mm | 06   | 0.2µm     | 01   | 1/8" Hose Barb   | H    | Yes                    | R    |   | Non Sterile   | 1    | 100       | 04   |
|                  |      |       |      |           |      | Female Luer Lock | M    | No*                    | X    |   | Gamma Sterile | 3    |           |      |
|                  |      |       |      |           |      | Male Luer Slip   | N    |                        |      |   |               |      |           |      |
|                  |      |       |      |           |      | Male Luer Lock   | L    |                        |      |   |               |      |           |      |
|                  |      |       |      |           |      | 1/4" Hose Barb   | B    |                        |      |   |               |      |           |      |

**Example:**

|      |    |    |    |   |   |   |    |
|------|----|----|----|---|---|---|----|
| IVFX | 06 | 01 | MN | R | X | 1 | 04 |
|------|----|----|----|---|---|---|----|

\* Gamma irradiated filters cannot be gamma sterilized again

Example for Non Sterile: IVFX0601MNRX104

Example for gamma Sterile: IVFX0601MNXX304

## 0.2 µm AseptiVent® VF-γ 37mm, 50mm PVDF Membrane Capsule filter

| Type             |      | Size  |      | Pore Size |      | Inlet/Outlet       |      | Radiation Sterilizable |      | X | Sterility     |      | Pack Size |      |
|------------------|------|-------|------|-----------|------|--------------------|------|------------------------|------|---|---------------|------|-----------|------|
|                  | Code |       | Code |           | Code |                    | Code |                        | Code |   |               | Code |           | Code |
| AseptiVent® VF-γ | IVFX | 37 mm | 08   | 0.2µm     | 01   | ¼" SHB             | B    | Yes                    | R    |   | Non Sterile   | 1    | 10        | 02   |
|                  |      | 50 mm | 10   |           |      | ¾" Sanitary Flange | S    | No*                    | X    |   | Gamma Sterile | 3    |           |      |

**Example:**

|      |    |    |    |   |   |   |    |
|------|----|----|----|---|---|---|----|
| IVFX | 10 | 01 | BB | R | X | 1 | 02 |
|------|----|----|----|---|---|---|----|

\* Gamma irradiated filters cannot be gamma sterilized again

Example for Non Sterile: IVFX0801BBRX102

Example for gamma Sterile: IVFX0801BBXX302

**Note: Inlet/Outlet Connections and Pack Sizes available with different diameter filters as follows:**

| Connections Available     |             |      |      |
|---------------------------|-------------|------|------|
| Inlet/Outlet              | 25mm        | 37mm | 50mm |
| ¼" - ¾" Stepped Hose Barb | X           | √    | √    |
| ¾" Sanitary Flange        | X           | X    | √    |
| Female Luer Lock          | Inlet Only  | X    | X    |
| Male Luer Slip            | Outlet Only | X    | X    |
| ⅛" Hose Barb              | √           | X    | X    |
| Male Luer Lock            | Outlet Only | X    | X    |
| ¼" Hose Barb              | √           | X    | X    |

| Dimension (in mm)                                | Inline Capsule Filters |      |      |
|--|------------------------|------|------|
| Inlet/ Outlet                                    | 25mm                   | 37mm | 50mm |
| ¼" - ¾" Stepped Hose Barb I/O                    | -                      | 64   | 79   |
| ¼" Single Step Hose Barb I/O                     | 38                     | -    | -    |
| ¾" Sanitary Flange I/O                           | -                      | -    | 51   |
| Female Luer Lock Inlet/<br>Male Luer Slip Outlet | 23                     | -    | -    |
| ⅛" Hose Barb I/O                                 | 36                     | -    | -    |
| Operational Radius                               | 15                     | 23   | 28   |

# Ordering Information

# Datasheet

## 0.2 µm AseptiVent® VF-γ PVDF Membrane Capsule filter

| Type             |      | Size |      | Pore Size |      | Inlet/Outlet             |      | Radiation Sterilizable |      | X | Sterility     |      | Pack Size |      |
|------------------|------|------|------|-----------|------|--------------------------|------|------------------------|------|---|---------------|------|-----------|------|
|                  | Code |      | Code |           | Code |                          | Code |                        | Code |   |               | Code |           | Code |
| AseptiVent® VF-γ | DVLX | 1"   | 51   | 0.2µm     | 01   | ¼" SHB                   | A    | Yes                    | R    |   | Non Sterile   | 1    | 1         | 01   |
|                  |      | 2"   | 52   |           |      | ½" Hose Barb             | D    | No*                    | X    |   | Gamma Sterile | 3    |           |      |
|                  |      | 5"   | 53   |           |      | Single Step ½" Hose Barb | Q    |                        |      |   |               |      |           |      |
|                  |      | 8"   | 57   |           |      | 1½" Sanitary Flange      | E    |                        |      |   |               |      |           |      |
|                  |      |      |      |           |      | ¾" Sanitary Flange       | S    |                        |      |   |               |      |           |      |
|                  |      |      |      |           |      | Quick Connector          | J    |                        |      |   |               |      |           |      |
|                  |      |      |      |           |      | ½" Single Step Hose Barb | Q    |                        |      |   |               |      |           |      |
|                  |      |      |      |           |      | Female Luer Lock         | U    |                        |      |   |               |      |           |      |
|                  |      |      |      |           |      | Male Luer Slip           | W    |                        |      |   |               |      |           |      |
|                  |      |      |      |           |      | ⅜" Hose Barb             | N    |                        |      |   |               |      |           |      |
|                  |      |      |      |           |      | ⅝" Hose Barb             | I    |                        |      |   |               |      |           |      |

### Example:

|      |    |    |    |   |   |   |    |
|------|----|----|----|---|---|---|----|
| DVLX | 57 | 01 | EE | R | X | 1 | 01 |
|------|----|----|----|---|---|---|----|

\* Gamma irradiated filters cannot be gamma sterilized again

Example for Non Sterile: DVLX5301QQRX101

Example for gamma Sterile: DVLX5301QQXX301

**Note: Inlet/Outlet Connections available with different Sizes/Length as follows:**

| Inlet/Outlet             | Size/Length |    |             |    | Dimensions (in mm)   |  | Small Capsule Filters |     |     |     |
|--------------------------|-------------|----|-------------|----|--|--|-----------------------|-----|-----|-----|
|                          | 1"          | 2" | 5"          | 8" | End Connections  |  | 1"                    | 2"  | 5"  | 8"  |
| 1/4" Stepped Hose Barb   | √           | √  | √           | √  | ¼" SHB I/O   |  | 94                    | 122 | 172 | 223 |
| ½" Hose Barb             | √           | √  | √           | √  | ¾" Sanitary Flange Inlet I/O                                 |  | 85                    | 104 | 155 | 206 |
| 1½" Sanitary Flange      | √           | √  | √           | √  | Quick Connector  |  | 100                   | 113 | 164 | 218 |
| ¾" Sanitary Flange       | √           | √  | √           | √  | 1½" Sanitary Flange I/O                                      |  | 92                    | 112 | 164 | 216 |
| Quick Connector          | √           | √  | √           | √  | ½" Hose Barb I/O   |  | 90                    | 112 | 162 | 214 |
| ½" Single Step Hose Barb | X           | √  | √           | √  | ½" Single Step Hose Barb I/O                                 |  | -                     | 115 | 165 | 218 |
| Female Luer Lock         | √           | √  | √           | √  | 1½" Sanitary Flange Inlet<br>½" Single Step Hose Barb Outlet |  | -                     | 112 | 165 | 216 |
| Male Luer Slip           | Outlet Only | X  | X           | X  | 3/8" Hose Barb I/O   |  | -                     | 115 | 167 | 217 |
| ⅜" Hose Barb             | √           | √  | Outlet Only | X  | Operational Radius   |  | 40                    | 65  | 65  | 65  |
| ⅝" Hose Barb             | X           | √  | √           | √  |  |  |                       |     |     |     |

# Ordering Information

# Datasheet

## 0.2 µm AseptiVent® VF-γ PVDF Membrane Capsule filter

| Type             |      | Size |      | Pore Size |      | Inlet/Outlet             |      | Radiation Sterilizable |      | Inline/T-Line |      | Sterility     |      | Pack Size |      |
|------------------|------|------|------|-----------|------|--------------------------|------|------------------------|------|---------------|------|---------------|------|-----------|------|
|                  | Code |      | Code |           | Code |                          | Code |                        | Code |               | Code |               | Code |           | Code |
| AseptiVent® VF-γ | LVLX | 5"   | 53   | 0.2µm     | 01   | ½" Single Step Hose Barb | Q    | Yes                    | R    | Inline        | X    | Non Sterile   | 1    | 1         | 01   |
|                  |      | 10"  | 54   |           |      | 1½" Sanitary Flange      | E    | No*                    | X    | T-line**      | T    | Gamma Sterile | 3    |           |      |
|                  |      | 20"  | 55   |           |      | ¾" Sanitary Flange       | S    |                        |      |               |      |               |      |           |      |
|                  |      | 30"  | 56   |           |      | ¾" Hose Barb             | I    |                        |      |               |      |               |      |           |      |
|                  |      |      |      |           |      | 1" Hose Barb             | Z    |                        |      |               |      |               |      |           |      |

### Example:

|      |    |    |    |   |   |   |    |
|------|----|----|----|---|---|---|----|
| LVLX | 54 | 01 | EE | R | X | 1 | 01 |
|------|----|----|----|---|---|---|----|

\* Gamma irradiated filters cannot be gamma sterilized again

Example for Non Sterile: LVLX5401QQRX101

Example for gamma Sterile: LVLX5401QQXX301

\*\* T-line is not available in 5" Capsule filter

\*\* T-line Capsule Filter are available with 1½" Sanitary Flange I/O Connections Only

**Note: Inlet/Outlet Connections available with different Sizes/Length as follows:**

| Inlet/Outlet             | Inline |     |     |     | T-Line |     |     | Dimensions (in mm)                               | Inline Capsule Filters |     |     |     | T-line Capsule Filters |     |     |
|--------------------------|--------|-----|-----|-----|--------|-----|-----|--|------------------------|-----|-----|-----|------------------------|-----|-----|
|                          | 5"     | 10" | 20" | 30" | 10"    | 20" | 30" |  | 5"                     | 10" | 20" | 30" | 10"                    | 20" | 30" |
| ½" Single Step Hose Barb | √      | √   | √   | √   | X      | X   | X   | End Connections                                  |                        |     |     |     |                        |     |     |
| 1½" Sanitary Flange      | √      | √   | √   | √   | √      | √   | √   | 1½" Sanitary Flange I/O                          | 205                    | 330 | 600 | 855 | 340                    | 580 | 840 |
| ¾" Sanitary Flange       | √      | √   | X   | X   | X      | X   | X   | ¾" Sanitary Flange I/O                           | 214                    | 335 | x   | x   | x                      | x   | x   |
| ¾" Hose Barb             | √      | √   | √   | √   | X      | X   | X   | ½" Single Step Hose Barb I/O                     | 218                    | 336 | 630 | 890 | x                      | x   | x   |
| 1" Hose Barb             | X      | √   | √   | √   | X      | X   | X   | 1½" Sanitary Flange Inlet<br>½" Hose Barb Outlet | 212                    | 334 | 620 | 870 | x                      | x   | x   |
|                          |        |     |     |     |        |     |     | ¾" Hose Barb I/O                                 | 211                    | 332 | 634 | 878 | x                      | x   | x   |
|                          |        |     |     |     |        |     |     | 1" Hose Barb I/O                                 | x                      | 405 | 635 | 895 | x                      | x   | x   |
|                          |        |     |     |     |        |     |     | Operational Radius                               | 80                     | 80  | 80  | 80  | 80                     | 80  | 80  |

## Advanced Microdevices Pvt. Ltd.

20-21, Industrial Area, Ambala Cantt-133 006, INDIA

Tel : +91-171-2699290, 2699471

E-mail : info@mdimembrane.com

Website : www.mdimembrane.com