

KAREI™**PVDF Series**

SPECIFICATIONS

ABSOLUTE MICRON RATING

0.1, 0.2, 0.45, 0.6 and 0.8 micron

FILTRATION AREA/ 10 INCHES FILTER CARTRIDGE

> 0.68 m²

NOMINAL LENGTH

125, 250, 500, 750, 1000 mm or

127, 254, 508, 762, 1016 mm

NOMINAL INNER/OUTER DIAMETER (ID/OD)

Standard : 30/ 68 mm

Note: 28mm inner diameter is available upon request.

MEDIA MATERIAL

I) Natural : Hydrophobic PVDF

(0.2 um: For gas applications)

II) Modify : Hydrophilic PVDF

(0.1, 0.2, 0.45, 0.6 & 0.8 um: For liquid applications)

SUPPORTING MATERIAL

Pure Polypropylene or PVDF

INNER CORE, CAGE AND END ADAPTOR MATERIAL

Standard : High Strength Pure Polypropylene

RPG : Reinforced Polypropylene With Glass

HPE : High Density Polyethylene

PVDF : PVDF

SEALING TECHNIQUE

Thermal Bonding

END STYLE

1) DOE : Double Opened End

2) SOE : Single Opened End

i) S2C : SOE, 222 O-Ring With Closed End

ii) S2F : SOE, 222 O-Ring With Finned End

iii) S6C : SOE, 226 O-Ring With Closed End

iv) S6F : SOE, 226 O-Ring With Finned End

Note: Extended adaptor and stainless steel reinforcement ring for SOE filter cartridge is available upon request.

GASKET AND O-RING MATERIAL

1) Standard : EPDM

2) V : Viton

3) S : Silicone

4) T : Teflon

5) FEP : Teflon Encapsulated Viton

6) PVDF : PVDF

OPERATING CONDITIONS

MAX. FORWARD DIFFERENTIAL PRESSURE

80 PSID (5.5 Bar) at 25 °C (131 °F)

MAX. REVERSE DIFFERENTIAL PRESSURE

50 PSID at 25 °C (77 °F)

MAX. OPERATING TEMPERATURE

90°C at 2.1 Bar (30 PSI)

CHANGE OUT DIFFERENTIAL PRESSURE

3.4 Bar (50 PSI) At 90°C

DESCRIPTIONS

PVDF cartridge filters are made of high purity grade of Polyvinylidene Fluoride membrane in Class 10K clean room environment in order to meet the most stringent requirements in electronic and process chemical filtrations.

PVDF and PP construction provides excellent chemical compatibility and suitable for wide range of applications.

Available in natural Hydrophobic or modified Hydrophilic forms.

Absolute fixed pore rating of 0.1, 0.2, 0.45, 0.6 and 0.8 um provide excellent particles removal and bacteria retention capabilities. Eliminates shedding and particles unloading.

Hydrophobic PVDF membrane with absolute rating of 0.2 um in water is capable to perform 0.01 um >99.999% efficiency in air and gas stream.

PVDF has superior flow rate and low pressure drops. Make it the ideal choice for broad range of liquid and bulk air filtrations.

All parts are thermally welded without surfactants, additives and binders eliminate extractable.

100% integrity tested to ensure product consistency.

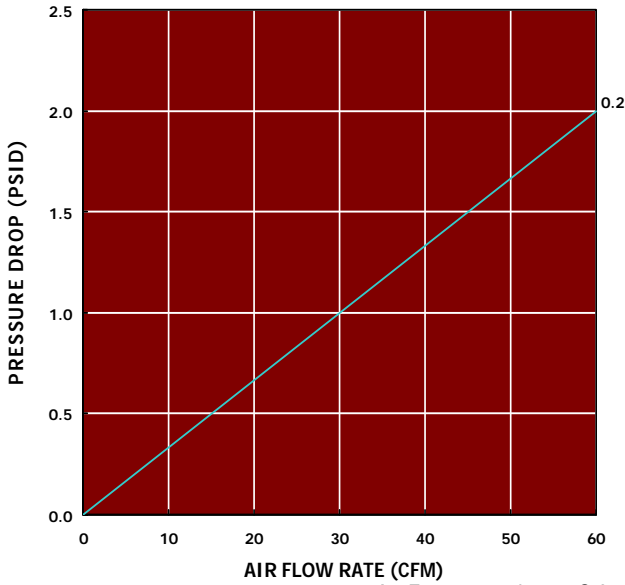
Comply with FDA Code Of Federal Regulation Title 21 for food and beverage use.

Meet USP Class VI-121°C Plastic reactivity test for Biosafety.

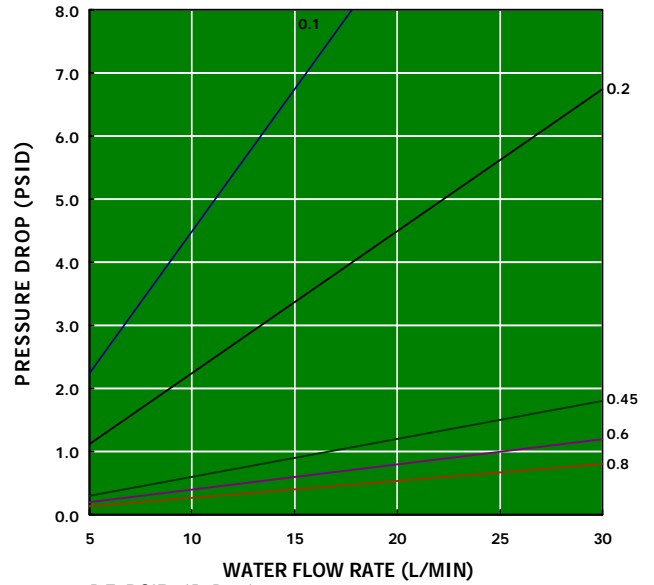
A guaranteed quality product (ISO 9001 certified).

Cartridges will be rinsed-up to 18 MΩ-cm D.I. water with a minimum of throughput, <150 Liters.

AIR PRESSURE DROP (10 INCHES CARTRIDGE)-PVDF-HB



WATER PRESSURE DROP (10 INCHES CARTRIDGE)-PVDF-HL



Air Temperature: 24 °C, Inlet Pressure: 15 PSID (1 Bar)

STERILIZATION AND SANITIZATION METHODS

| | |
|-----------------------|---|
| Autoclave | 125 °C (257°F) for 30-45 minutes at maximum differential pressure of 7 PSI (0.5 Bar). |
| In-line Stream | 140 °C (284°F) for 45-60 minutes at 2 PSID (0.14 Bar) ΔP. |
| Hot Water | 88 °C (190°F) at 5 PSI (0.3 Bar) up to 50 minutes. |

KAREI-PVDF can be subjected to multiple sterilization cycles while maintain its integrity.

INTEGRITY TEST – MINIMUM BUBBLE POINT

| Micron | 0.2HB | 0.1HL | 0.2HL | 0.45HL | 0.65HL | 0.8HL |
|--|------------------------|-------|-------|---------------------|-------------------|-------|
| BAR | >1.2 | >5.3 | >4.8 | >3.3 | >1.9 | >1.0 |
| PSIG | >18 | >77 | >70 | >48 | >28 | >15 |
| Measured | 3 : 2 IPA/ Water | | | Water | Water | Water |
| Log Retention Value Of Bacteria | ≥7 | | | ≥7 | ≥7 | - |
| Bacteria | Brevundimonas Diminuta | | | Serratia Marcescens | Sacch. Cerevisiae | - |

ORDERING GUIDE

KAREI – PVDF – (A) – (B) – (C) – (D) – (E) – (F)

| | |
|--------------------------------------|--|
| (A) MICRON | 02=0.2 (For HB model) 01=0.1, 02=0.2, 04=0.45, 06=0.6, 08=0.8 um (For HL model) |
| (B) TYPE | HB=Hydrophobic membrane, HL=Hydrophilic membrane HLA= ALL PVDF Filter Cartridge |
| (C) LENGTH | 125, 250, 500, 750, 1000 or 127, 254, 508, 762, 1016 mm |
| (D) END STYLE | None=Double Opened End (DOE) S2C=222 & Closed End, S2F=222 & Finned End, S6C=226 & Closed End, S6F=226 & Finned End Note: For SOE with extended adaptor, please include the code of 'EX'. |
| (E) GASKET/ O-RING MATERIAL | None=EPDM, V=Viton, S=Silicone, T=Teflon, FEP=Teflon Encapsulated Viton Note : For SOE with stainless steel reinforcement ring, please include the code of 'R'. |
| (F) PARTS MATERIAL | None=Polypropylene, RPG=Reinforced PP With Glass, HPE=High Density PE |

EXAMPLE:

- 1) KAREI-PVDF-02HB-250-DOE (PVDF, 0.2 um, Hydrophobic membrane, 250mm, DOE, EPDM gasket, PP parts material)
- 2) KAREI-PVDF-01HLA-250-DOE (PVDF, 0.1 um, All PVDF filter cartridge, 250mm, DOE, PVDF gasket)
- 3) KAREI-PVDF-01HL-250-S2C-EX-VR-RPG (PVDF, 0.1 um, Hydrophilic membrane, 250mm, SOE, 222 Viton O-Ring with extended adaptor and stainless steel reinforcement ring, Closed end, Reinforced PP with glass parts material)

Note: We cannot anticipate all conditions under which this information and our products, or the products of other manufacturers in combination with our products, may be used. We accept no responsibility for results obtained by the applications. Users are advised to make their own testing under actual condition to determine the safety and suitability of each product or product combination for their own purposes and applications. Buyers and users assume all responsibility for liability performance or damage. We reserve the entire right to modify the information without prior notice due to continuous R & D.