



Mini Kleenpak™ capsule with Fluorodyne® II membrane

Description

Pall® Mini **Kleenpak** capsules with **Fluorodyne** II membrane are designed for applications where the use of a filter with a low surface area is critical, having a surface area of just 200 cm². The capsules also have a very low hold-up volume of ≤ 6 mL which makes them especially suited to the filtration of high value/low volume products, for replacement of disc filters and for scale-up and scale-down activities, without having product losses during filtration.

They contain the **Fluorodyne** II PVDF membrane, and are suited to the sterile filtration of products containing low concentration of active ingredients or preservatives.

Key Features

- Low area pleated membrane capsule filter (200 cm² (0.22 ft²) filter area)
- Available presterilized by gamma irradiation or suitable for autoclaving (see Ordering Information table on reverse)
- Very low hold-up volume - typically ≤ 6 mL
- **Fluorodyne** II membrane with a very high transmission of proteins and preservatives
- A choice of two sterilizing grades: DFL and DJL (0.2 and 0.1 µm) with **Fluorodyne** II membrane for maximum flexibility and enhanced sterility assurance
- **Fluorodyne** II grade DJL filters with integral prefiltration layer for long service life
- Fully integrity testable using the forward flow test



High Quality Standards

- Validated with *Brevundimonas diminuta* (ATCC 19146) at a challenge level of 10⁷ organisms/cm² filter area
- 100% integrity tested during manufacturing
- Integrity test (forward flow) correlated to removal efficiency
- Manufactured under clean conditions in a controlled environment
- Each filter supplied with a Certificate of Test
- Comprehensive validation guide available

Materials of Construction

Membrane layers	Hydrophilic PVDF
Support and Drainage layers	Polypropylene
Capsule	Polypropylene
Vent	Polypropylene
Sealing Technology	Thermal bonding
Filling Bell (not shown in drawing)	Polycarbonate

Operating Parameters⁽¹⁾

Max Operating Pressure	4.1 bar (60 psi) at 30°C (86°F)
Max Operating Temperature	80°C (176°F) at 2.1 bar (30 psi)

⁽¹⁾ In compatible fluids which do not soften, swell or adversely affect the filter or its materials of construction.

Sterilization

Autoclave*	3 x 1 hour cycles at 140°C (284°F)
Gamma Irradiation**	Up to 50 kGrays

* For G option only

** Consult Pall for more details

Warning: Pre-sterilized units should not be resterilized.

This product must not be sterilized *in-situ* by passing steam through under pressure. Please consult instruction leaflets for fuller recommendations.

Extractables

< 1 mg in water at 20°C (68°F) for non-irradiated filter
≤ 5 mg in water at 20°C (68°F) for gamma irradiated filter

Typical Effective Filtration Area

200 cm ² (0.22 ft ²)

Ordering Information

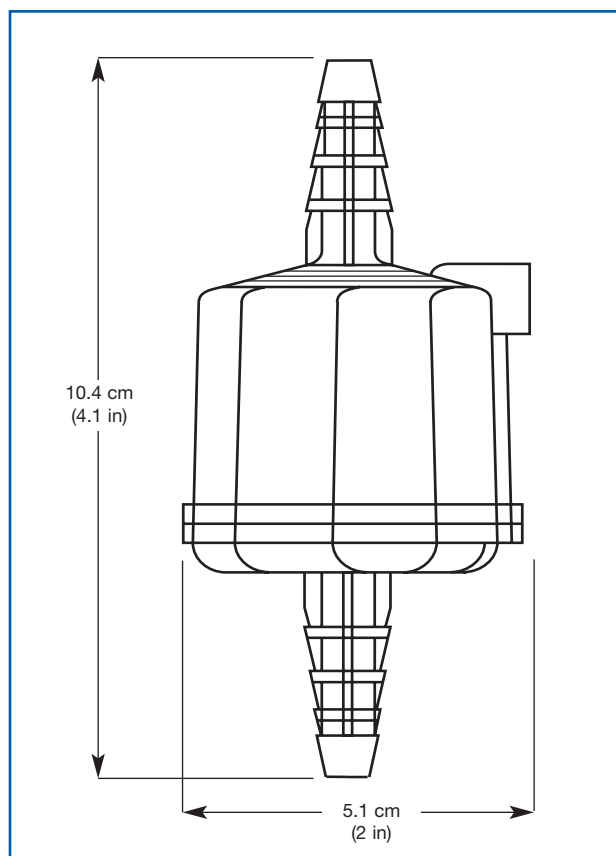
Part Number***	Grade	Description
KA02DFLP2G	0.2 µm	Non-sterile with filling bell****
KA02DFLP2S	0.2 µm	Pre-sterilized with filling bell****
KA02DJLP2G	0.1 µm	Non-sterile with filling bell****
KA02DJLP2S	0.1 µm	Pre-sterilized with filling bell****

*** Part number represents one box containing 3 Mini Kleenpak filters.

****The filling bell can be removed easily.

1 bar = 100 KPa

Dimensions



Typical Flow Rates⁽²⁾

DFL	225 mL/min at 100 mbar (1.4 psi) differential pressure
DJL	100 mL/min at 100 mbar (1.4 psi) differential pressure

⁽²⁾ For fluids at 1cP viscosity. For other viscosities, divide flow rate by viscosity in cP.



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