



## 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 cm<sup>2</sup>. 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 cm<sup>2</sup> (0.22 ft<sup>2</sup>) 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 10<sup>7</sup> organisms/cm<sup>2</sup> 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<sup>(1)</sup>

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)

<sup>(1)</sup> 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 <sup>2</sup> (0.22 ft <sup>2</sup> )
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## Ordering Information

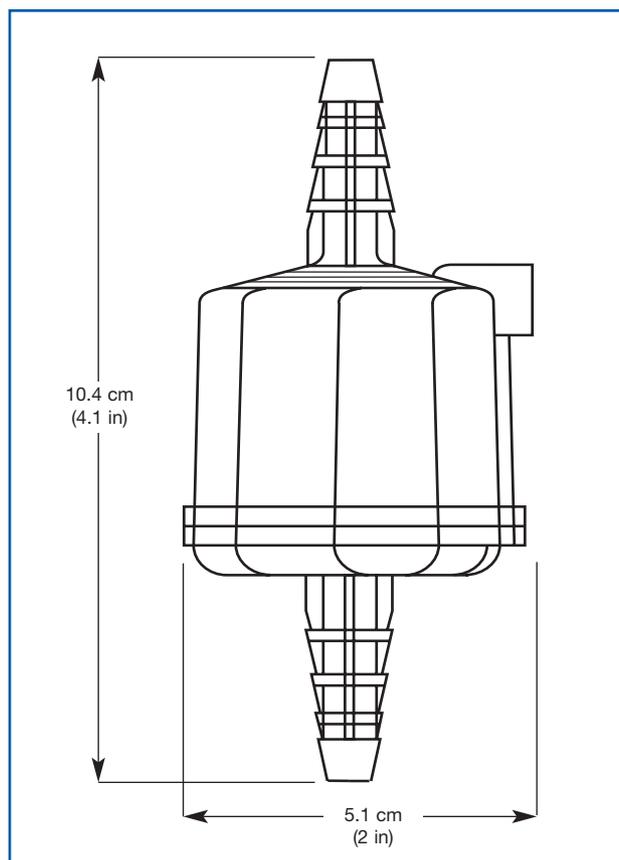
Part Number***	Grade	Description
KA02DFLP2G	0.2 µm	Non-sterile with filling bell****
KA02DFLP2S	0.2 µm	Pre-sterilized with filling bell****
KA02DJLP2G	0.1 µm	Non-sterile with filling bell****
KA02DJLP2S	0.1 µm	Pre-sterilized with filling bell****

\*\*\* 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<sup>(2)</sup>

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

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



Life Sciences

New York - USA

+1 516 484 5400 phone

+1 516 625 3610 fax

pharmafilter@pall.com e-mail

Portsmouth - Europe

+44 (0)23 9230 3303 phone

+44 (0)23 9230 2506 fax

BioPharmUK@europe.pall.com e-mail

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