



Flexsafe[®] RM

Disposable Cultivation Chambers for Rocking Motion Bioreactors

Product Information

The Flexsafe[®] RM is a single use bioreactor bag available in multiple sizes and configurations depending on customer requirements. The control of the complete manufacturing process, from the resin to the final bag, ensures consistent and reproducible quality of the Flexsafe[®] bioprocessing bags. This has been proven by the excellent and lot-to lot consistent cell growth performance of this new multilayer polyethylene film.



Applications

Our BIOSTAT[®] RM bioreactors use rocking motion mixing technology which is ideal for cell cultivation with low shear stress. Easy to use, it is hassle free and applicable to all cell types, including

- mammalian cells
- plant cells
- insect cells
- microbial cells
- stem cells and
- T-cells.

Flexibility and Configurations

The Flexsafe[®] RM bags are available in 1 L, 2 L, 10 L, 20 L, 50 L, 100 L and 200 L size. Bags are available as basic, optical and perfusion configurations.

Basic bags are designed for use in seed train and production applications without pH and DO control.

Optical bags feature integrated single use opto-chemical pH and DO sensors, which are already pre-calibrated. Used together with the BIOSTAT[®] RM control tower, they allow high end cultivation with full process automation.

Basic and optical bags up to 50 L size are also available with screw caps (38 mm diameter). The screw cap can be used for the insertion | removal of larger objects inside a laminar flow cabinet, e.g. microcarriers.

Perfusion bags are available in two versions:

A) With an integrated 1.2 μm perfusion membrane (PES). The membrane is fixed at the bottom of the bag, forming a compartment for removal of cell free media. The wave created by the agitation moves over the surface of the membrane, thereby flushing the membrane with every rocking motion. This innovative and patented design* ensures low fouling and long cultivation times.

B) ATF perfusion bags are designed for the convenient connection to an external cell retention device via OPTA connector.

* Perfusion bag design protected by Sartorius patents US 9,017,977 B2 and EP2268788B1

Easy Implementation

Flexsafe® RM Bags are supplied gamma irradiated and ready to use. The Flexsafe® RM bag is mounted on the bag holder of the rocker easily and secured on both sides through fixation clamps.

Sensors

Precise and reliable single-use sensors for pH and DO come pre-installed and sterilized with the bag. The sensors are pre-calibrated and the calibration data is supplied together with the bag.

2L to 200L bags are also available with integrated sensors for measurement of viable biomass (ViaMass). All 2nd generation BIOSTAT® B with RM systems can be equipped with the BioPAT® ViaMass electronics. Please contact your local Sartorius Stedim Biotech representative for further information.



Figure 1: Viable biomass sensor (BioPAT® ViaMass) integrated in the Flexsafe® RM bag – connection to the hardware component.

Working Volumes and Surface Areas of Flexsafe® RM Standard Bags

Bag Size (Total Volume)	Min. Working Volume* [L]	Max. Working Volume [L]	Surface Area [mm ²]**
1 L	0.1	0.5	127296
2 L	0.2	1	172260
10 L	1	5	303360
20 L	2	10	633080
50 L	5	25	985320
100 L	10	50	1421724
200 L	20	100	2777064

* Bags with sensors might require higher min. working volumes

** Port holes were not considered

Validation and Extractable Testing

Flexsafe® RM Bags have been qualified applying the most complex and innovative test regimes. Biological, chemical and physical tests combined with extractable testing prove lowest extractable and leachable levels and excellent compatibility to the relevant pharmacopoeias and guidelines. For more information, please refer to our Validation Guide and Extractable Guide.

Quality Assurance

All relevant materials are selected following applicable regulations and standards such as FDA, CFR's, cGMPs and in-house guidelines. Finished Flexsafe® RM bags undergo final product quality control which is certified with a Quality Assurance certificate.

Technical Data

Flexsafe® RM Bag Sizes and Available Components

Total Volume (L)	1	2	10	20	50	100	200
Working volume (L)*	0.1–0.5	0.2–1	1–5	2–10	5–25	10–50	20–100
Bag Types							
Basic	•	•	•	•	•	•	•
Basic & optical with screw cap		•	•	•	•		
Optical		•	•	•	•	•	•
Perfusion with integrated membrane		•	•	•	•		
Perfusion with connection to ATF module		•	•	•	•	•	•
Basic, optical, perfusion & perfusion ATF with ViaMass		•	•	•	•	•	•

Main Components	Basic	Optical	Perfusion
Connectors	Female Male Luer Female Male MPC Clave® connector	Female Male Luer Female Male MPC Clave® connector	Female Male Luer Female Male MPC Clave® connector Opta® connector
Filters	Air Inlet Air Outlet	Air Inlet Air Outlet	Air Inlet Air Outlet
Ports	Sampling Fill harvest with dip tube Acid Base Screw Cap	Sampling Fill harvest with dip tube Acid Base Screw Cap	Sampling Fill harvest with dip tube Acid Base Perfusion feed harvest Screw Cap
Sensors	Single-use viable biomass (BioPAT® ViaMass) 10–50 L	Optical chemical pH Optical chemical DO Single-use viable biomass (BioPAT® ViaMass)**	Optical chemical pH Optical chemical DO Single-use viable biomass (BioPAT® ViaMass)**
Perfusion	–	–	Perfusion membrane PES 1.2 µm Opta aseptic connector to ATF system
Tubing material	LDPE, Silicone, PVC, C-Flex®, PharMed®, Natvar TPE		

* Bags with sensors might require higher minimum working volumes depending on rocking rate and angle. We recommend using 20% of the total volume as the minimum working volume.

** Manufactured under license from HAMILTON.

Bag Configurations

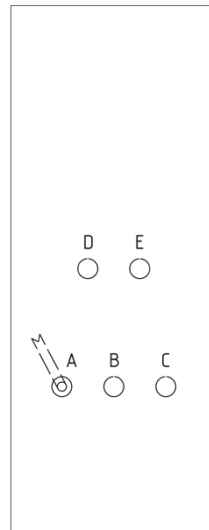
Flexsafe® RM Basic Bags

Flexsafe® RM 1L basic

DFB001L

Ports

- Port A Dip Tube Silicone, C-Flex® 374 tubing 1/8" x 1/4" (1000 mm), FM-Luer
- Port B Septum for needle-free sampling, FM-Luer
- Port C Silicone tubing 3/16" x 5/16" (50 mm), FM-Luer
- Port D Gas Outlet Filter with Check Valve, M-Luer
- Port E Gas Inlet Filter 1/4" Hose barb

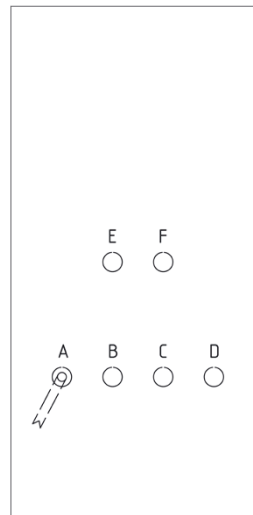


Flexsafe® RM 2L basic

DFB002L

Ports

- Port A Dip Tube Silicone, C-Flex® 374 tubing 1/8" x 1/4" (1000 mm), FM-Luer
- Port B Septum for needle-free sampling, FM-Luer
- Port C;D Silicone tubing 3/16" x 5/16" (50 mm), FM-Luer
- Port E Gas Outlet Filter with Check Valve, M-Luer
- Port F Gas Inlet Filter 1/4" Hose barb

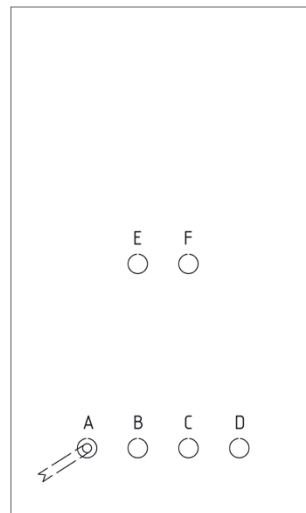


Flexsafe® RM 10L basic

DFB010L

Ports

- Port A Dip Tube Silicone, C-Flex® 374 tubing 1/4" x 7/16" (1000 mm), FM-MPC
- Port B C-Flex® 374 tubing 1/8" x 1/4" (1000 mm), FM-Luer
- Port C Septum for needle-free sampling, FM-Luer
- Port D Silicone tubing 3/16" x 5/16" (50 mm), FM-Luer
- Port E Gas Outlet Filter with Check Valve, M-Luer
- Port F Gas Inlet Filter 1/4" Hose barb



Flexsafe® RM 20L basic

DFB020L

Ports

Port A	Dip Tube Silicone, C-Flex® 374 tubing 1/4" x 7/16" (1000 mm), FM-MPC
Port B	C-Flex® 374 tubing 1/8" x 1/4" (1000 mm), FM-Luer
Port C	Septum for needle-free sampling, FM-Luer
Port D;G	Silicone tubing 3/16" x 5/16" (50 mm), FM-Luer
Port E	Gas Outlet Filter with Check Valve, M-Luer
Port F	Gas Inlet Filter 1/4" Hose barb

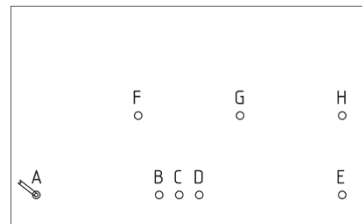


Flexsafe® RM 50L basic

DFB050L

Ports

Port A	Dip Tube Silicone, C-Flex® 374 tubing 1/4" x 7/16" (1000 mm), FM-MPC
Port B	C-Flex® 374 tubing 1/8" x 1/4" (1000 mm), FM-Luer
Port C	Septum for needle-free sampling, FM-Luer
Port D;H	Silicone tubing 3/16" x 5/16" (50 mm), FM-Luer
Port E	C-Flex® 374 tubing 1/4" x 7/16" (1000 mm), M-MPC
Port F	Gas Outlet Filter with Check Valve, M-Luer
Port G	Gas Inlet Filter 1/4" Hose barb

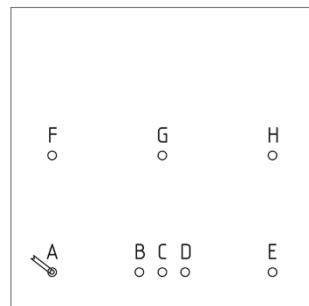


Flexsafe® RM 50L basic (US)

DFB050L----01US

Ports

Port A	Dip Tube Silicone, C-Flex® 374 tubing 1/4" x 7/16" (1000 mm), FM-MPC
Port B	C-Flex® 374 tubing 1/8" x 1/4" (1000 mm), FM-Luer
Port C	Septum for needle-free sampling, FM-Luer
Port D;H	Silicone tubing 3/16" x 5/16" (50 mm), FM-Luer
Port E	C-Flex® 374 tubing 1/4" x 7/16" (1000 mm), M-MPC
Port F	Gas Outlet Filter with Check Valve, M-Luer
Port G	Gas Inlet Filter 1/4" Hose barb



Flexsafe® RM 100L basic

DFB100L

Ports

Port A;C	Silicone tubing 3/16" x 5/16" (50 mm), FM-Luer
Port B	C-Flex® 374 tubing 3/8" x 5/8" (1000 mm), M-MPC
Port D;E	Septum for needle-free sampling, FM-Luer
Port F	C-Flex® 374 tubing 1/8" x 1/4" (1000 mm), FM-Luer
Port G	Gas Outlet Filter, M-Luer
Port H;I	Gas Inlet Outlet Filter 1/4" Hose barb
Port J	Dip Tube Silicone, C-Flex® 374 tubing 3/8" x 5/8" (1000 mm), M-MPC



Flexsafe® RM 200L basic

DFB200L

Ports

Port A;C Silicone tubing $\frac{3}{16}$ " \times $\frac{5}{16}$ " (50 mm), FM-Luer

Port B C-Flex® 374 tubing $\frac{3}{8}$ " \times $\frac{5}{8}$ " (1000 mm), M-MPC

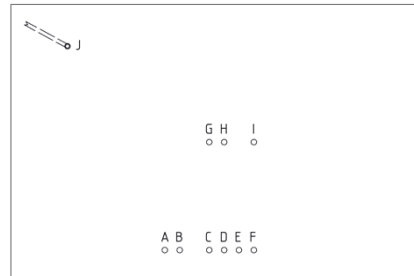
Port D; E Septum for needle-free sampling, FM-Luer

Port F C-Flex® 374 tubing $\frac{1}{8}$ " \times $\frac{1}{4}$ " (1000 mm), FM-Luer

Port G Gas Outlet Filter, M-Luer

Port H;I Gas Inlet | Outlet Filter $\frac{1}{4}$ " Hose barb

Port J Dip Tube Silicone, C-Flex® 374 tubing $\frac{3}{8}$ " \times $\frac{5}{8}$ " (1000 mm), M-MPC



Flexsafe® RM 2L basic Screw Cap

DFB002L----01SC

Ports

Port A Dip Tube Silicone, C-Flex® 374 tubing $\frac{1}{8}$ " \times $\frac{1}{4}$ " (1000 mm), FM-Luer

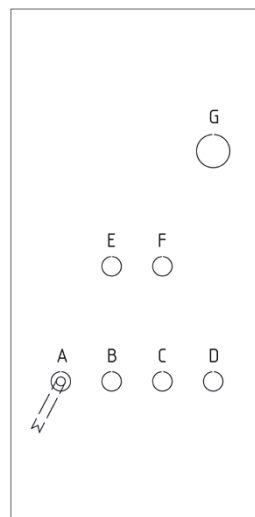
Port B Septum for needle-free sampling, FM-Luer

Port C;D Silicone tubing $\frac{3}{16}$ " \times $\frac{5}{16}$ " (50 mm), FM-Luer

Port E Gas Outlet Filter with Check Valve, M-Luer

Port F Gas Inlet Filter $\frac{1}{4}$ " Hose barb

Port G Screw Cap 38 mm



Flexsafe® RM 10L basic Screw Cap

DFB010L----01SC

Ports

Port A Dip Tube Silicone, C-Flex® 374 tubing $\frac{1}{4}$ " \times $\frac{7}{16}$ " (1000 mm), FM-MPC

Port B C-Flex® 374 tubing $\frac{1}{8}$ " \times $\frac{1}{4}$ " (1000 mm), FM-Luer

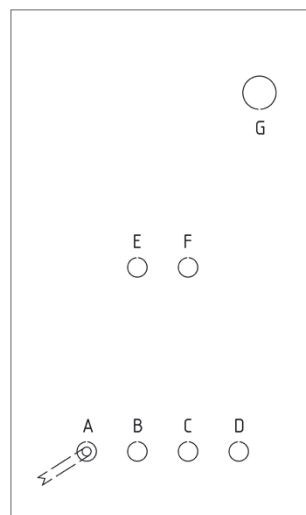
Port C Septum for needle-free sampling, FM-Luer

Port D Silicone tubing $\frac{3}{16}$ " \times $\frac{5}{16}$ " (50 mm), FM-Luer

Port E Gas Outlet Filter with Check Valve, M-Luer

Port F Gas Inlet Filter $\frac{1}{4}$ " Hose barb

Port G Screw Cap 38 mm

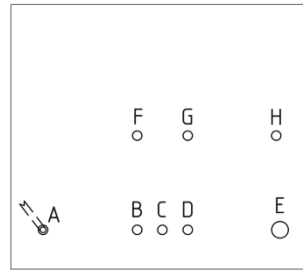


Flexsafe® RM 20L basic Screw Cap

DFB020L----01SC

Ports

Port A	Dip Tube Silicone, C-Flex® 374 tubing 1/4" × 7/16" (1000 mm), FM-MPC
Port B	C-Flex® 374 tubing 1/8" × 1/4" (1000 mm), FM-Luer
Port C	Septum for needle-free sampling, FM-Luer
Port D;H	Silicone tubing 3/16" × 5/16" (50 mm), FM-Luer
Port E	Screw Cap 38 mm
Port F	Gas Outlet Filter with Check Valve, M-Luer
Port G	Gas Inlet Filter 1/4" Hose barb

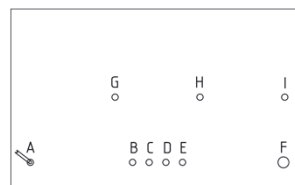


Flexsafe® RM 50L basic Screw Cap

DFB050L----01SC

Ports

Port A	Dip Tube Silicone, C-Flex® 374 tubing 1/4" × 7/16" (1000 mm), FM-MPC
Port B	C-Flex® 374 tubing 1/8" × 1/4" (1000 mm), FM-Luer
Port C	Septum for needle-free sampling, FM-Luer
Port D;I	Silicone tubing 3/16" × 5/16" (50 mm), FM-Luer
Port E	C-Flex® 374 tubing 1/4" × 7/16" (1000 mm), M-MPC
Port F	Screw Cap 38 mm
Port G	Gas Outlet Filter with Check Valve, M-Luer
Port H	Gas Inlet Filter 1/4" Hose barb

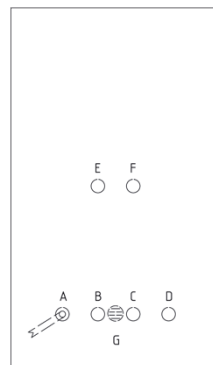


Flexsafe® RM 10L basic ViaMass

DFB010L----VM

Ports

Port A	Dip Tube Silicone, C-Flex® 374 tubing 1/4" × 7/16" (1000 mm), FM-MPC
Port B	C-Flex® 374 tubing 1/8" × 1/4" (1000 mm), FM-Luer
Port C	Septum for needle-free sampling, FM-Luer
Port D	Silicone tubing 3/16" × 5/16" (50 mm), FM-Luer
Port E	Gas Outlet Filter with Check Valve, M-Luer
Port F	Gas Inlet Filter 1/4" Hose barb
Port G	BioPAT® ViaMass sensor



Flexsafe® RM 20L basic ViaMass

DFB020L----VM

Ports

Port A Dip Tube Silicone, C-Flex® 374 tubing 1/4" x 7/16" (1000 mm), FM-MPC

Port B C-Flex® 374 tubing 1/8" x 1/4" (1000 mm), FM-Luer

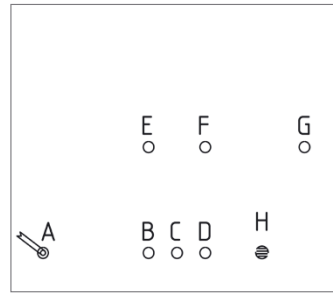
Port C Septum for needle-free sampling, FM-Luer

Port D;G Silicone tubing 3/16" x 5/16" (50 mm), FM-Luer

Port E Gas Outlet Filter with Check Valve, M-Luer

Port F Gas Inlet Filter 1/4" Hose barb

Port H BioPAT® ViaMass sensor



Flexsafe® RM 50L basic ViaMass

DFB050L----VM

Ports

Port A Dip Tube Silicone, C-Flex® 374 tubing 1/4" x 7/16" (1000 mm), FM-MPC

Port B C-Flex® 374 tubing 1/8" x 1/4" (1000 mm), FM-Luer

Port C Septum for needle-free sampling, FM-Luer

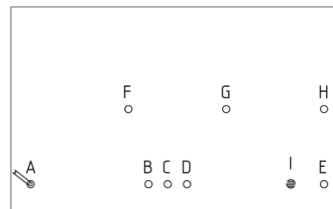
Port D;H Silicone tubing 3/16" x 5/16" (50 mm), FM-Luer

Port E C-Flex® tubing 1/4" x 7/16" (1000 mm), M-MPC

Port F Gas Outlet Filter with Check Valve, M-Luer

Port H Gas Inlet Filter 1/4" Hose barb

Port I BioPAT® ViaMass sensor



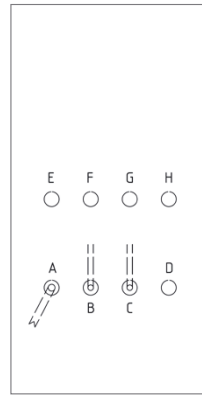
Flexsafe® RM Optical Bags

Flexsafe® RM 2L optical

DFO002L

Ports

Port A	Dip Tube Silicone, C-Flex® 374 tubing 1/8" × 1/4" (1000 mm), FM-Luer
Port B	DO sensor
Port C	pH sensor
Port D	Septum for needle-free sampling, FM-Luer
Port E;H	Silicone tubing 3/16" × 5/16" (50 mm), FM-Luer
Port F	Gas Outlet Filter with Check Valve, M-Luer
Port G	Gas Inlet Filter 1/4" Hose barb

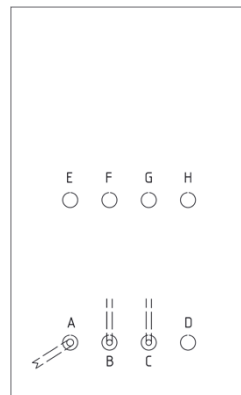


Flexsafe® RM 10L optical

DFO010L

Ports

Port A	Dip Tube Silicone, C-Flex® 374 tubing 1/4" × 7/16" (1000 mm), FM-MPC
Port B	DO sensor
Port C	pH sensor
Port D	Septum for needle-free sampling, FM-Luer
Port E	C-Flex® 374 tubing 1/8" × 1/4" (1000 mm), FM-Luer
Port F	Gas Outlet Filter with Check Valve, M-Luer
Port G	Gas Inlet Filter 1/4" Hose barb
Port H	Silicone tubing 3/16" × 5/16" (50 mm), FM-Luer

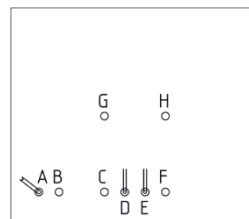


Flexsafe® RM 20L optical

DFO020L

Ports

Port A	Dip Tube Silicone, C-Flex® 374 tubing 1/4" × 7/16" (1000 mm), FM-MPC
Port B	C-Flex® 374 tubing 1/8" × 1/4" (1000 mm), FM-Luer
Port C	Septum for needle-free sampling, FM-Luer
Port D	DO sensor
Port E	pH sensor
Port F	Silicone tubing 3/16" × 5/16" (50 mm), FM-Luer
Port G	Gas Outlet Filter with Check Valve, M-Luer
Port H	Gas Inlet Filter 1/4" Hose barb

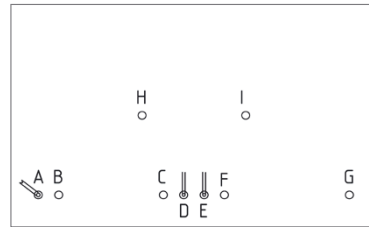


Flexsafe® RM 50L optical

DFO050L

Ports

Port A	Dip Tube Silicone, C-Flex® 374 tubing 1/4" x 7/16" (1000 mm), FM-MPC
Port B	C-Flex® 374 tubing 1/8" x 1/4" (1000 mm), FM-Luer
Port C	Septum for needle-free sampling, FM-Luer
Port D	DO sensor
Port E	pH sensor
Port F	Silicone tubing 3/16" x 5/16" (50 mm), FM-Luer
Port G	C-Flex® 374 tubing 1/4" x 7/16" (1000 mm), M-MPC
Port H	Gas Outlet Filter with Check Valve, M-Luer
Port I	Gas Inlet Filter 1/4" Hose barb



Flexsafe® RM 100L optical

DFO100L

Ports

Port A	C-Flex® 374 tubing 3/8" x 5/8" (1000 mm), M-MPC
Port B	Silicone tubing 3/16" x 5/16" (50 mm), FM-Luer
Port C; D	Septum for needle-free sampling, FM-Luer
Port E	DO sensor
Port F	pH sensor
Port G	C-Flex® 374 tubing 1/8" x 1/4" (1000 mm), FM-Luer
Port H	Gas Outlet Filter, M-Luer
Port I; J	Gas Inlet Outlet Filter 1/4" Hose barb
Port K	Dip Tube Silicone, C-Flex® 374 tubing 3/8" x 5/8" (1000 mm), M-MPC

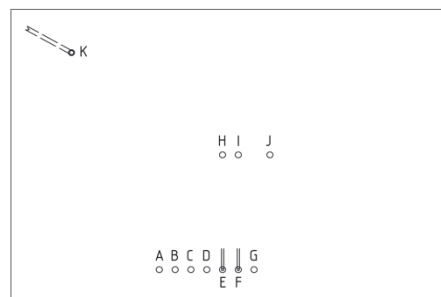


Flexsafe® RM 200L optical

DFO200L

Ports

Port A	C-Flex® 374 tubing 3/8" x 5/8" (1000 mm), M-MPC
Port B	Silicone tubing 3/16" x 5/16" (50 mm), FM-Luer
Port C; D	Septum for needle-free sampling, FM-Luer
Port E	DO sensor
Port F	pH sensor
Port G	C-Flex® 374 tubing 1/8" x 1/4" (1000 mm), FM-Luer
Port H	Gas Outlet Filter, M-Luer
Port I; J	Gas Inlet Outlet Filter 1/4" Hose barb
Port K	Dip Tube Silicone, C-Flex® 374 tubing 3/8" x 5/8" (1000 mm), M-MPC

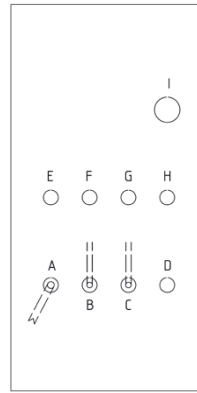


Flexsafe® RM 2L optical Screw Cap

DF0002L----01SC

Ports

Port A	Dip Tube Silicone, C-Flex® 374 tubing 1/8" x 1/4" (1000 mm), FM-Luer
Port B	DO sensor
Port C	pH sensor
Port D	Septum for needle-free sampling, FM-Luer
Port E; H	Silicone tubing 3/16" x 5/16" (50 mm), FM-Luer
Port F	Gas Outlet Filter with Check Valve, M-Luer
Port G	Gas Inlet Filter 1/4" Hose barb
Port I	Screw Cap 38 mm

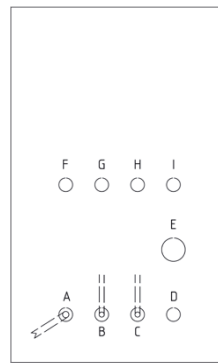


Flexsafe® RM 10L optical Screw Cap

DF0010L----01SC

Ports

Port A	Dip Tube Silicone, C-Flex® 374 tubing 1/4" x 7/16" (1000 mm), FM-MPC
Port B	DO sensor
Port C	pH sensor
Port D	Septum for needle-free sampling, FM-Luer
Port E	Screw Cap 38 mm
Port F	C-Flex® 374 tubing 1/8" x 1/4" (1000 mm), FM-Luer
Port G	Gas Outlet Filter with Check Valve, M-Luer
Port H	Gas Inlet Filter 1/4" Hose barb
Port I	Silicone tubing 3/16" x 5/16" (50 mm), FM-Luer
Port K	Dip Tube Silicone, C-Flex® 374 tubing 3/8" x 5/8" (1000 mm), M-MPC

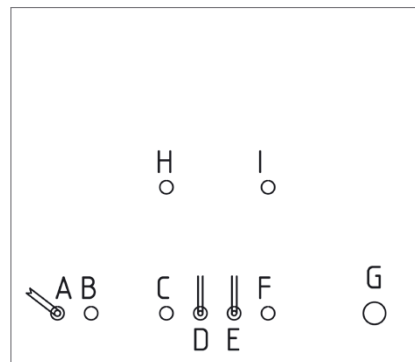


Flexsafe® RM 20L optical Screw Cap

DF0020L----01SC

Ports

Port A	Dip Tube Silicone, C-Flex® 374 tubing 1/4" x 7/16" (1000 mm), FM-MPC
Port B	C-Flex® 374 tubing 1/8" x 1/4" (1000 mm), FM-Luer
Port C	Septum for needle-free sampling, FM-Luer
Port D	DO sensor
Port E	pH sensor
Port F	Silicone tubing 3/16" x 5/16" (50 mm), FM-Luer
Port G	Screw Cap 38 mm
Port H	Gas Outlet Filter with Check Valve, M-Luer
Port I	Gas Inlet Filter 1/4" Hose barb

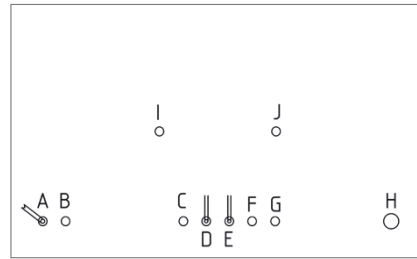


Flexsafe® RM 50L optical Screw Cap

DF0050L----01SC

Ports

Port A	Dip Tube Silicone, C-Flex® 374 tubing 1/4" x 7/16" (1000 mm), FM-MPC
Port B	C-Flex® 374 tubing 1/8" x 1/4" (1000 mm), FM-Luer
Port C	Septum for needle-free sampling, FM-Luer
Port D	DO sensor
Port E	pH sensor
Port F	Silicone tubing 3/16" x 5/16" (50 mm), FM-Luer
Port G	C-Flex® 374 tubing 1/4" x 7/16" (1000 mm), M-MPC
Port H	Screw Cap 38 mm
Port I	Gas Outlet Filter with Check Valve, M-Luer
Port J	Gas Inlet Filter 1/4" Hose barb

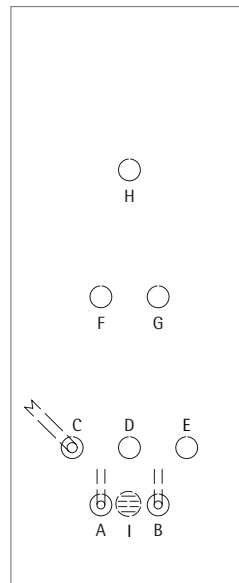


Flexsafe® RM 2L optical ViaMass

DF0002L--VM

Ports

Port A	DO sensor
Port B	pH sensor
Port C	Dip Tube Silicone, C-Flex® 374 tubing 1/4" x 7/16" (1000 mm), FM-Luer
Port D	Septum for needle-free sampling, FM-Luer
Port E	Silicone tubing 3/16" x 5/16" (50 mm), FM-Luer
Port F	Gas Outlet Filter with Check Valve, M-Luer
Port G	Gas Inlet Filter 1/4" Hose barb
Port H	Silicone tubing 3/16" x 5/16" (50 mm), FM-Luer
Port I	BioPAT® ViaMass sensor

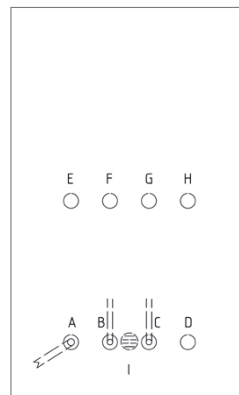


Flexsafe® RM 10L optical ViaMass

DF0010L----VM

Ports

Port A	Dip Tube Silicone, C-Flex® 374 tubing 1/4" x 7/16" (1000 mm), FM-MPC
Port B	DO sensor
Port C	pH sensor
Port D	Septum for needle-free sampling, FM-Luer
Port E	C-Flex® 374 tubing 1/8" x 1/4" (1000 mm), FM-Luer
Port F	Gas Outlet Filter with Check Valve, M-Luer
Port G	Gas Inlet Filter 1/4" Hose barb
Port H	Silicone tubing 3/16" x 5/16" (50 mm), FM-Luer
Port I	BioPAT® ViaMass sensor

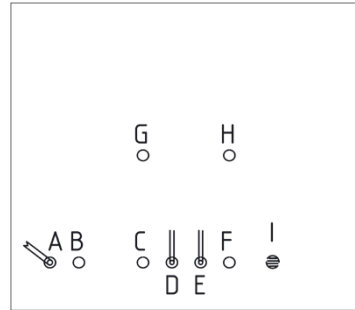


Flexsafe® RM 20L optical ViaMass

DFO020L----VM

Ports

Port A	Dip Tube Silicone, C-Flex® 374 tubing 1/4" x 7/16" (1000 mm), FM-MPC
Port B	C-Flex® 374 tubing 1/8" x 1/4" (1000 mm), FM-Luer
Port C	Septum for needle-free sampling, FM-Luer
Port D	DO sensor
Port E	pH sensor
Port F	Silicone tubing 3/16" x 5/16" (50 mm), FM-Luer
Port G	Gas Outlet Filter with Check Valve, M-Luer
Port H	Gas Inlet Filter 1/4" Hose barb
Port I	BioPAT® ViaMass sensor

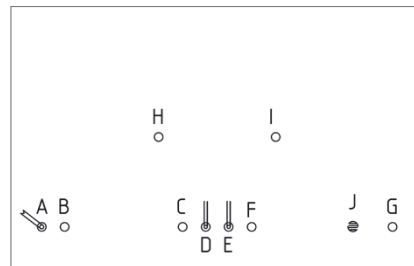


Flexsafe® RM 50L optical ViaMass

DFO050L----VM

Ports

Port A	Dip Tube Silicone, C-Flex® 374 tubing 1/4" x 7/16" (1000 mm), FM-MPC
Port B	C-Flex® 374 tubing 1/8" x 1/4" (1000 mm), FM-Luer
Port C	Septum for needle-free sampling, FM-Luer
Port D	DO sensor
Port E	pH sensor
Port F	Silicone tubing 3/16" x 5/16" (50 mm), FM-Luer
Port G	C-Flex® 374 tubing 1/4" x 7/16" (1000 mm), M-MPC
Port H	Gas Outlet Filter with Check Valve, M-Luer
Port I	Gas Inlet Filter 1/4" Hose barb
Port J	BioPAT® ViaMass sensor

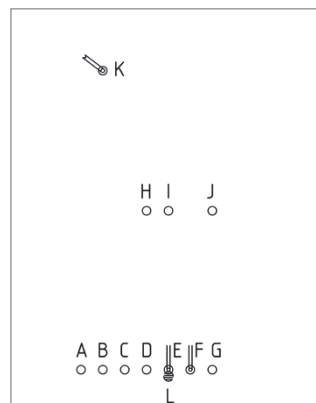


Flexsafe® RM 100L optical ViaMass

DFO100L----VM

Ports

Port A	C-Flex® 374 tubing 3/8" x 5/8" (1000 mm), M-MPC
Port B	Silicone tubing 3/16" x 5/16" (50 mm), FM-Luer
Port C; D	Septum for needle-free sampling, FM-Luer
Port E	DO sensor
Port F	pH sensor
Port G	C-Flex® 374 tubing 1/8" x 1/4" (1000 mm), FM-Luer
Port H	Gas Outlet Filter, M-Luer
Port I; J	Gas Inlet Outlet Filter 1/4" Hose barb
Port K	Dip Tube Silicone, C-Flex® 374 tubing 3/8" x 5/8" (1000 mm), M-MPC
Port L	BioPAT® ViaMass sensor



Flexsafe® RM 200L optical ViaMass

DFO200L----VM

Ports

Port A C-Flex® 374 tubing $\frac{3}{8}$ " \times $\frac{5}{8}$ " (1000 mm), M-MPC

Port B Silicone tubing $\frac{3}{16}$ " \times $\frac{5}{16}$ " (50 mm), FM-Luer

Port C; D Septum for needle-free sampling, FM-Luer

Port E DO sensor

Port F pH sensor

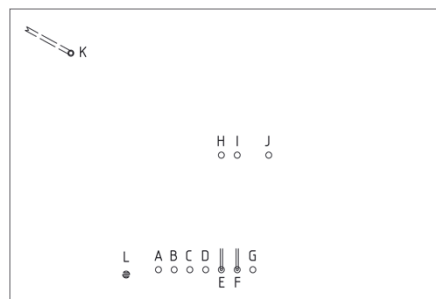
Port G C-Flex® 374 tubing $\frac{1}{8}$ " \times $\frac{1}{4}$ " (1000 mm), FM-Luer

Port H Gas Outlet Filter, M-Luer

Port I; J Gas Inlet | Outlet Filter $\frac{1}{4}$ " Hose barb

Port K Dip Tube Silicone, C-Flex® 374 tubing $\frac{3}{8}$ " \times $\frac{5}{8}$ " (1000 mm), M-MPC

Port L BioPAT® ViaMass sensor



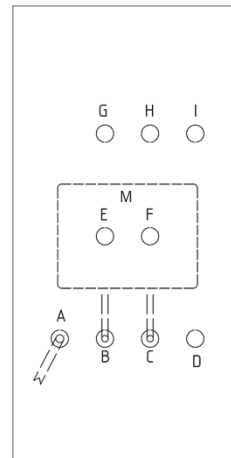
Flexsafe® RM Perfusion Membrane Bags

Flexsafe® RM 2L perfusion

DFP002L--SM

Ports

Port A	Dip Tube Silicone, C-Flex® 374 tubing 1/8" x 1/4" (1000 mm), PharMed® 1/16" x 3/16" (300 mm), FM-Luer (Perfusion Feed)
Port B	DO sensor
Port C	pH sensor
Port D	Septum for needle-free sampling, FM-Luer
Port E	Gas Outlet Filter with Check Valve, M-Luer
Port F	Gas Inlet Filter 1/4" Hose barb
Port G	Silicone tubing 3/16" x 5/16" (50 mm), FM-Luer
Port H	C-Flex® 374 tubing 1/8" x 1/4" (1000 mm), FM-Luer
Port I	C-Flex® 374 tubing 1/8" x 1/4" (1000 mm), PharMed® 1/16" x 3/16" (300 mm), FM-Luer (Perfusion Harvest)
M	Perfusion membrane, PES 1.2 µm, fixed at the bottom of the bag

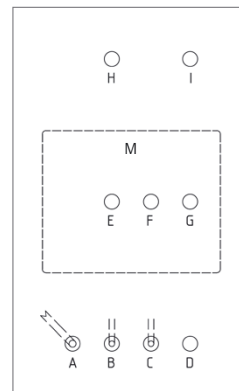


Flexsafe® RM 10L perfusion

DFP010L--SM

Ports

Port A	Dip Tube Silicone, C-Flex® 374 tubing 1/4" x 7/16" (1000 mm), FM-MPC
Port B	DO sensor
Port C	pH sensor
Port D	Septum for needle-free sampling, FM-Luer
Port E	Gas Outlet Filter with Check Valve, M-Luer
Port F	Gas Inlet Filter 1/4" Hose barb
Port G	C-Flex® 374 tubing 1/8" x 1/4" (1000 mm), PharMed® 1/16" x 3/16" (300 mm), FM-Luer (Perfusion Feed)
Port H	C-Flex® 374 tubing 1/8" x 1/4" (1000 mm), FM-Luer
Port I	C-Flex® 374 tubing 1/8" x 1/4" (1000 mm), PharMed® 1/16" x 3/16" (300 mm), FM-Luer (Perfusion Harvest)
M	Perfusion membrane, PES 1.2 µm, fixed at the bottom of the bag

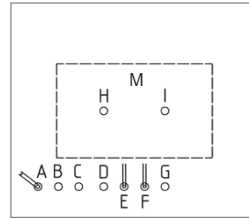


Flexsafe® RM 20L perfusion

DFP020L--SM

Ports

Port A	Dip Tube Silicone, C-Flex® 374 tubing 1/4" x 7/16" (1000 mm), FM-MPC
Port B	C-Flex® 374 tubing 1/8" x 1/4" (1000 mm), FM-Luer
Port C	C-Flex® 374 tubing 1/8" x 1/4" (1000 mm), PharMed® 1/8" x 1/4" (300 mm), FM-Luer (Perfusion Feed)
Port D	Septum for needle-free sampling, FM-Luer
Port E	DO sensor
Port F	pH sensor
Port G	C-Flex® 374 tubing 1/8" x 1/4" (1000 mm), PharMed® 1/8" x 1/4" (300 mm), FM-Luer (Perfusion Harvest)
Port H	Gas Outlet Filter with Check Valve, M-Luer
Port I	Gas Inlet Filter 1/4" Hose barb
M	Perfusion membrane, PES 1.2 µm, fixed at the bottom of the bag

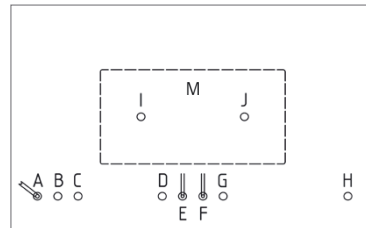


Flexsafe® RM 50L perfusion

DFP050L--SM

Ports

Port A	Dip Tube Silicone; C-Flex® 374 tubing 1/4" x 7/16" (1000 mm), FM-MPC
Port B	C-Flex® 374 tubing 1/8" x 1/4" (1000 mm), FM-Luer
Port C	C-Flex® 374 tubing 1/8" x 1/4" (1000 mm), PharMed® 1/8" x 1/4" (300 mm), FM-Luer (Perfusion Feed)
Port D	Septum for needle-free sampling, FM-Luer
Port E	DO sensor
Port F	pH sensor
Port G	C-Flex® 374 tubing 1/8" x 1/4" (1000 mm), PharMed® 1/8" x 1/4" (300 mm), FM-Luer (Perfusion Harvest)
Port H	C-Flex® 374 tubing 1/4" x 7/16" (1000 mm), M-MPC
Port I	Gas Outlet Filter with Check Valve, M-Luer
Port J	Gas Inlet Filter 1/4" Hose barb
M	Perfusion membrane, PES 1.2 µm, fixed at the bottom of the bag

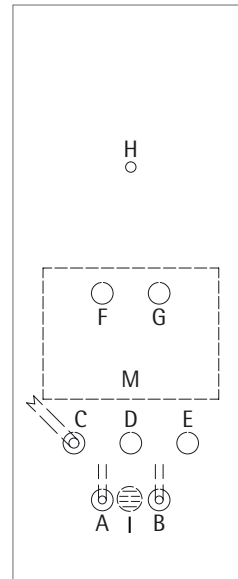


Flexsafe® RM TX 2L perfusion ViaMass, TPE

DFT002L--SMVM1

Ports

Port A	DO sensor
Port B	pH sensor
Port C	Dip Tube Silicone, C-Flex® 374 tubing 1/8" x 1/4" (1000 mm), PharMed® 1/16" x 3/16" (300 mm), C-Flex® 374 1/8" x 1/4" (500 mm) press-in plug (Perfusion Feed)
Port D	Septum for needle-free sampling, FM-Luer
Port E	C-Flex® 374 tubing 1/8" x 1/4" (1000 mm), PharMed® 1/16" x 3/16" (300 mm), C-Flex® 374 1/8" x 1/4" (500 mm), press-in plug (Perfusion Harvest)
Port F	Gas Outlet Filter, Sartopore® Air Midisart with Check Valve, M-Luer
Port G	Gas Inlet Filter, Sartopore® Air Midisart
Port H	Harvest port: C-Flex® 374 tubing 1/8" x 1/4" (1000 mm)
Port I	BioPAT® ViaMass sensor
M	Perfusion membrane, PES 1.2 µm, fixed at the bottom of the bag

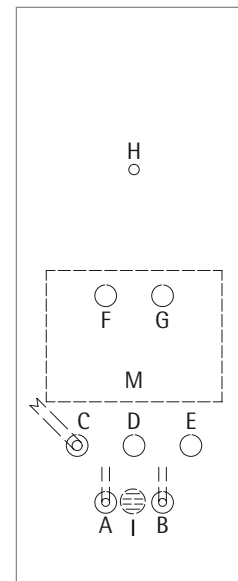


Flexsafe® RM TX 2L perfusion ViaMass, PVC

DFT002L--SMVM2

Ports

Port A	DO sensor
Port B	pH sensor
Port C	Dip Tube Silicone, C-Flex® 374 tubing 1/8" x 1/4" (1000 mm), PharMed® 1/16" x 3/16" (300 mm), Tygon 3/32" x 5/32" (500 mm), press-in plug, (Perfusion Feed)
Port D	Septum for needle-free sampling, FM-Luer
Port E	C-Flex® 374 tubing 1/8" x 1/4" (1000 mm), PharMed® 1/16" x 3/16" (300 mm), Tygon 3/32" x 5/32" (500 mm), press-in plug (Perfusion Harvest)
Port F	Gas Outlet Filter, Sartopore® Air Midisart with Check Valve, M-Luer
Port G	Gas Inlet Filter, Sartopore® Air Midisart
Port H	Harvest port: Silicone tubing 1/8" x 1/4" (50 mm), Tygon 3/32" x 5/32" (1000 mm), press-in plug
Port I	BioPAT® ViaMass sensor
M	Perfusion membrane, PES 1.2 µm, fixed at the bottom of the bag

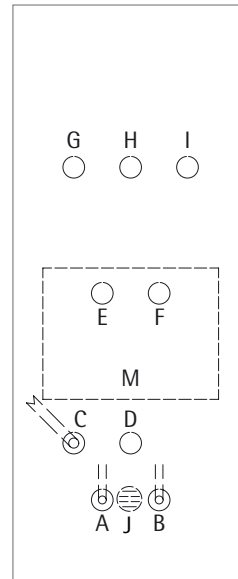


Flexsafe® RM 2L perfusion ViaMass

DFP002L--SMVM

Ports

Port A	DO sensor
Port B	pH sensor
Port C	Dip Tube Silicone, C-Flex® 374 tubing 1/8" x 1/4" (1000 mm), PharMed® 1/16" x 3/16" (300 mm), FM-Luer, (Perfusion Feed)
Port D	Septum for needle-free sampling, FM-Luer
Port E	Gas Outlet Filter with Check Valve, M-Luer
Port F	Gas Inlet Filter, 1/4" Hose barb
Port G	Silicone tubing 3/16" x 5/16" (50 mm), FM-Luer
Port H	C-Flex® 374 tubing 1/8" x 1/4" (1000 mm), FM-Luer
Port I	C-Flex® 374 tubing 1/8" x 1/4" (1000 mm), PharMed® 1/16" x 3/16" (300 mm), FM-Luer, (Perfusion Harvest)
Port J	BioPAT® ViaMass sensor
M	Perfusion membrane, PES 1.2 µm, fixed at the bottom of the bag

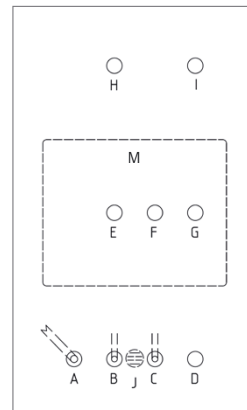


Flexsafe® RM 10L perfusion ViaMass

DFP010L--SMVM

Ports

Port A	Dip Tube Silicone, C-Flex® 374 tubing 1/4" x 7/16" (1000 mm), FM-MPC
Port B	DO sensor
Port C	pH sensor
Port D	Septum for needle-free sampling, FM-Luer
Port E	Gas Outlet Filter with Check Valve, M-Luer
Port F	Gas Inlet Filter 1/4" Hose barb
Port G	C-Flex® 374 tubing 1/8" x 1/4" (1000 mm), PharMed® 1/16" x 3/16" (300 mm), FM-Luer (Perfusion Feed)
Port H	C-Flex® 374 tubing 1/8" x 1/4" (1000 mm), FM-Luer
Port I	C-Flex® 374 tubing 1/8" x 1/4" (1000 mm), PharMed® 1/16" x 3/16" (300 mm), FM-Luer (Perfusion Harvest)
Port J	BioPAT® ViaMass sensor
M	Perfusion membrane, PES 1.2 µm, fixed at the bottom of the bag

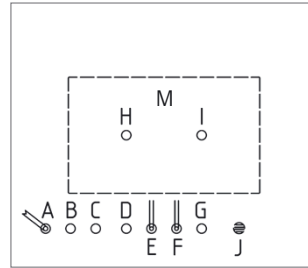


Flexsafe® RM 20L perfusion ViaMass

DFP020L--SMVM

Ports

Port A	Dip Tube Silicone, C-Flex® 374 tubing 1/4" x 7/16" (1000 mm), FM-MPC
Port B	C-Flex® 374 tubing 1/8" x 1/4" (1000 mm), FM-Luer
Port C	C-Flex® 374 tubing 1/8" x 1/4" (1000 mm), PharMed® 1/8" x 1/4" (300 mm), FM-Luer (Perfusion Feed)
Port D	Septum for needle-free sampling, FM-Luer
Port E	DO sensor
Port F	pH sensor
Port G	C-Flex® 374 tubing 1/8" x 1/4" (1000 mm), PharMed® 1/8" x 1/4" (300 mm), FM-Luer (Perfusion Harvest)
Port H	Gas Outlet Filter with Check Valve, M-Luer
Port I	Gas Inlet Filter 1/4" Hose barb
Port J	BioPAT® ViaMass sensor
M	Perfusion membrane, PES 1.2 µm, fixed at the bottom of the bag

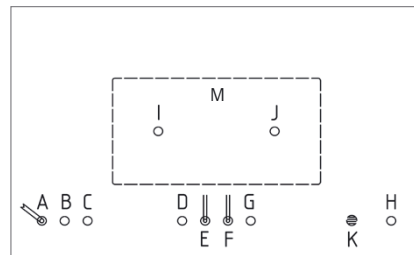


Flexsafe® RM 50L perfusion ViaMass

DFP050L--SMVM

Ports

Port A	Dip Tube Silicone, C-Flex® 374 tubing 1/4" x 7/16" (1000 mm), FM-MPC
Port B	C-Flex® 374 tubing 1/8" x 1/4" (1000 mm), FM-Luer
Port C	C-Flex® 374 tubing 1/8" x 1/4" (1000 mm), PharMed® 1/8" x 1/4" (300 mm), FM-Luer (Perfusion Feed)
Port D	Septum for needle-free sampling, FM-Luer
Port E	DO sensor
Port F	pH sensor
Port G	C-Flex® 374 tubing 1/8" x 1/4" (1000 mm), PharMed® 1/8" x 1/4" (300 mm), FM-Luer (Perfusion Harvest)
Port H	C-Flex® 374 tubing 1/4" x 7/16" (1000 mm), M-MPC
Port I	Gas Outlet Filter with Check Valve, M-Luer
Port J	Gas Inlet Filter 1/4" Hose barb
Port K	BioPAT® ViaMass sensor
M	Perfusion membrane, PES 1.2 µm, fixed at the bottom of the bag

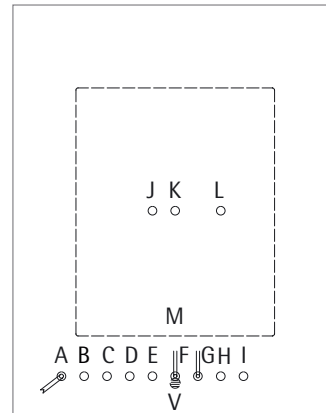


Flexsafe® RM 100L perfusion ViaMass

DFP100L--SMVM

Ports

Port A	Dip Tube Silicone, C-Flex® 374 tubing 3/8" × 5/8" (1000 mm), M-MPC
Port B	C-Flex® 374 tubing 1/8" × 1/4" (1000 mm), FM-Luer
Port C	C-Flex® 374 tubing 1/4" × 7/16" (1000 mm), PharMed® 3/16" × 5/16" (300 mm), FM-Luer (Perfusion Feed)
Port D	C-Flex® 374 tubing 3/8" × 5/8" (1000 mm), M-MPC
Port E	Septum for needle-free sampling, FM-Luer
Port F	DO sensor
Port G	pH sensor
Port H	C-Flex® 374 tubing 1/4" × 7/16" (1000 mm), PharMed® 3/16" × 5/16" (300 mm), FM-Luer (Perfusion Harvest)
Port I	Septum for needle-free sampling, FM-Luer
Port J	Gas Outlet Filter, M-Luer, 1/4" Hose barb
Port K	Gas Inlet Outlet Filter, 1/4" Hose barb
Port L	Gas Inlet, 1/4" Hose barb
Port V	BioPAT® ViaMass sensor
M	Perfusion membrane, PES 1.2 µm, fixed at the bottom of the bag

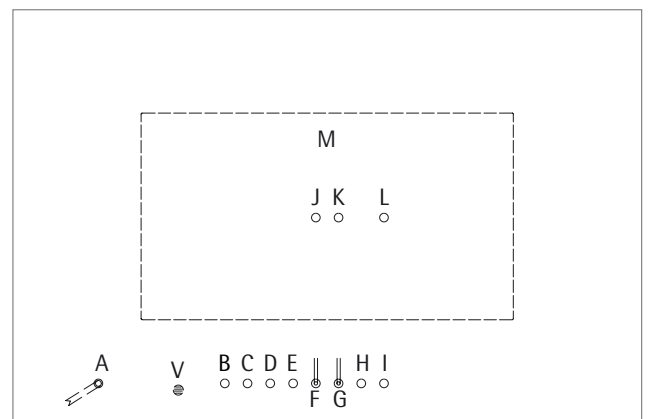


Flexsafe® RM 200L perfusion ViaMass

DFP200L--SMVM

Ports

Port A	Dip Tube Silicon, C-Flex® 374 tubing 3/8" × 5/8" (1000 mm), M-MPC
Port B	C-Flex® 374 tubing 1/8" × 1/4" (1000 mm), Silicone, FM-Luer
Port C	C-Flex® 374 tubing 1/4" × 7/16" (1000 mm), PharMed® 3/16" × 5/16" (300 mm), FM-Luer (Perfusion Feed)
Port D	C-Flex® 374 tubing 3/8" × 5/8" (1000 mm), M-MPC
Port E	Septum for needle-free sampling, FM-Luer
Port F	DO sensor
Port G	pH sensor
Port H	Septum for needle-free sampling, FM-Luer
Port I	C-Flex® 374 tubing 1/4" × 7/16" (1000 mm), PharMed® 3/16" × 5/16" (300 mm), FM-Luer (Perfusion Harvest)
Port J	Gas Outlet Filter, M-Luer, 1/4" Hose barb
Port K	Gas Inlet Outlet Filter, 1/4" Hose barb
Port L	Gas Inlet Filter 1/4" Hose barb
Port V	BioPAT® ViaMass sensor
M	Perfusion membrane, PES 1.2 µm, fixed at the bottom of the bag



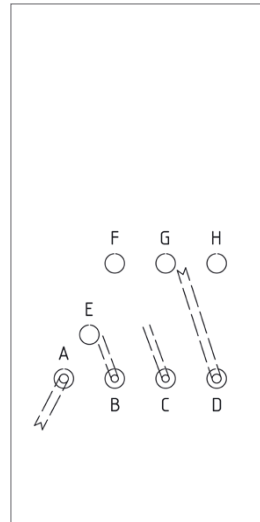
Flexsafe® RM Perfusion ATF Bags

Flexsafe® RM 2L perfusion ATF

DFP002L--AT

Ports

Port A	Dip Tube Silicone, C-Flex® 374 tubing 1/8" × 1/4" (1000 mm), FM-Luer
Port B	DO sensor
Port C	pH sensor
Port D	Dip Tube Silicone, Silicone tubing 3/8" × 5/8" (80 mm), M-Opta SFT-D to connect ATF system
Port E	Septum for needle-free sampling, FM-Luer
Port F	Gas Outlet Filter with Check Valve, M-Luer
Port G	Gas Inlet Filter 1/4" Hose barb
Port H	Silicone tubing 3/16" × 5/16" (50 mm), FM-Luer

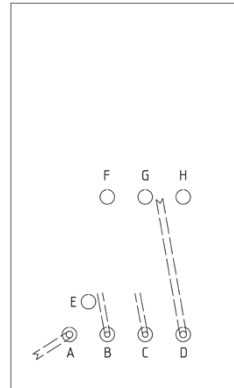


Flexsafe® RM 10L perfusion ATF

DFP010L--AT

Ports

Port A	Dip Tube Silicone, C-Flex® 374 tubing 1/4" × 7/16" (1000 mm), FM-MPC
Port B	DO sensor
Port C	pH sensor
Port D	Dip Tube Silicone, Silicone tubing 3/8" × 5/8" (80 mm), M-Opta SFT-D to connect ATF system
Port E	Septum for needle-free sampling, FM-Luer
Port F	Gas Outlet Filter with Check Valve, M-Luer
Port G	Gas Inlet Filter 1/4" Hose barb
Port H	C-Flex® 374 tubing 1/8" × 1/4" (1000 mm), FM-Luer

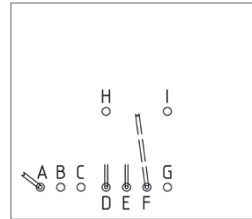


Flexsafe® RM 20L perfusion ATF

DFP020L--AT

Ports

Port A	Dip Tube Silicone, C-Flex® 374 tubing 1/4" x 7/16" (1000 mm), FM-MPC
Port B	C-Flex® 374 tubing 1/8" x 1/4" (1000 mm), FM-Luer
Port C	Silicone tubing 3/16" x 5/16" (50 mm), FM-Luer
Port D	DO sensor
Port E	pH sensor
Port F	Dip Tube Silicone, Silicone tubing 3/8" x 5/8" (80 mm), M-Opta SFT-D to connect ATF system
Port G	Septum for needle-free sampling, FM-Luer
Port H	Gas Outlet Filter with Check Valve, M-Luer
Port I	Gas Inlet Filter 1/4" Hose barb

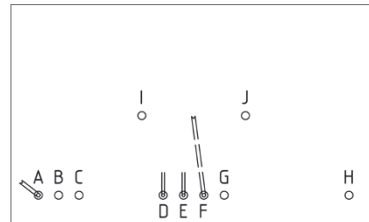


Flexsafe® RM 50L perfusion ATF

DFP050L--AT

Ports

Port A	Dip Tube Silicone, C-Flex® 374 tubing 1/4" x 7/16" (1000 mm), FM-MPC
Port B	C-Flex® 374 tubing 1/8" x 1/4" (1000 mm), FM-Luer
Port C	Silicone tubing 3/16" x 5/16" (50 mm), FM-Luer
Port D	DO sensor
Port E	pH sensor
Port F	Dip Tube Silicone, Silicone tubing 3/8" x 5/8" (80 mm), M-Opta SFT-D to connect ATF system
Port G	Septum for needle-free sampling, FM-Luer
Port H	C-Flex® 374 tubing 1/4" x 7/16" (1000 mm), M-MPC
Port I	Gas Outlet Filter with Check Valve, M-Luer
Port J	Gas Inlet Filter 1/4" Hose barb

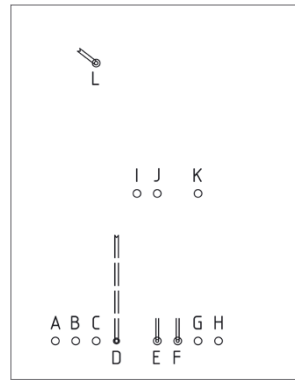


Flexsafe® RM 100L perfusion ATF

DFP100L--AT

Ports

Port A	C-Flex® 374 tubing $\frac{3}{8}$ " \times $\frac{5}{8}$ " (1000 mm), M-MPC
Port B	Silicone tubing $\frac{3}{16}$ " \times $\frac{5}{16}$ " (50 mm), FM-Luer
Port C	C-Flex® 374 tubing $\frac{1}{8}$ " \times $\frac{1}{4}$ " (1000 mm), FM-Luer
Port D	Dip Tube Silicone, Silicone tubing $\frac{1}{2}$ " \times $\frac{3}{4}$ " (150 mm), M-Opta SFT-I to connect ATF system
Port E	DO sensor
Port F	pH sensor
Port G; H	Septum for needle-free sampling, FM-Luer
Port I	Gas Outlet Filter, M-Luer
Port J; K	Gas Inlet Outlet Filter $\frac{1}{4}$ " Hose barb
Port L	Dip Tube Silicone, C-Flex® 374 tubing $\frac{3}{8}$ " \times $\frac{5}{8}$ " (1000 mm), M-MPC

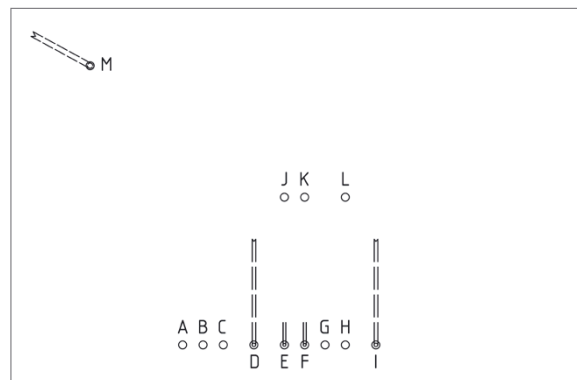


Flexsafe® RM 200L perfusion ATF

DFP200L--AT

Ports

Port A	C-Flex® 374 tubing $\frac{3}{8}$ " \times $\frac{5}{8}$ " (1000 mm), M-MPC
Port B	Silicone tubing $\frac{3}{16}$ " \times $\frac{5}{16}$ " (50 mm), FM-Luer
Port C	C-Flex® 374 tubing $\frac{1}{8}$ " \times $\frac{1}{4}$ " (1000 mm), FM-Luer
Port D; I	Dip Tube Silicone, Silicone tubing $\frac{1}{2}$ " \times $\frac{3}{4}$ " (150 mm), M-Opta SFT-I to connect ATF system
Port E	DO sensor
Port F	pH sensor
Port G; H	Septum for needle-free sampling, FM-Luer
Port J	Gas Outlet Filter, M-Luer
Port K; L	Gas Inlet Filter $\frac{1}{4}$ " Hose barb
Port M	Dip Tube Silicone, C-Flex® 374 tubing $\frac{3}{8}$ " \times $\frac{5}{8}$ " (1000 mm), M-MPC

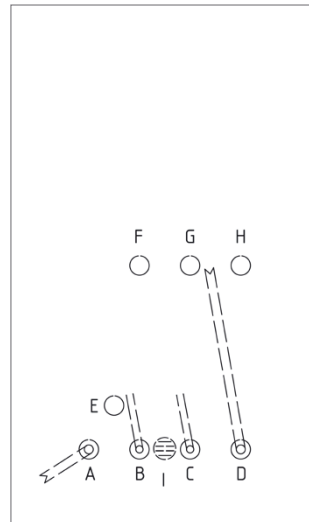


Flexsafe® RM 10L ATF ViaMass

DFP010L--ATVM

Ports

Port A	Dip Tube Silicone, C-Flex® 374 tubing 1/4" x 7/16" (1000 mm), FM-MPC
Port B	DO sensor
Port C	pH sensor
Port D	Dip Tube Silicone, Silicone tubing 3/8" x 5/8" (80 mm), M-Opta SFT-D to connect ATF system
Port E	Septum for needle-free sampling, FM-Luer
Port F	Gas Outlet Filter with Check Valve, M-Luer
Port G	Gas Inlet Filter 1/4" Hose barb
Port H	C-Flex® 374 tubing 1/8" x 1/4" (1000 mm), FM-Luer
Port I	BioPAT® ViaMass sensor

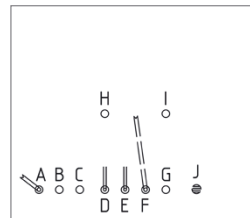


Flexsafe® RM 20L ATF ViaMass

DFP020L--ATVM

Ports

Port A	Dip Tube Silicone, C-Flex® 374 tubing 1/4" x 7/16" (1000 mm), FM-MPC
Port B	C-Flex® 374 tubing 1/8" x 1/4" (1000 mm), FM-Luer
Port C	Silicone tubing 3/16" x 5/16" (50 mm), FM-Luer
Port D	DO sensor
Port E	pH sensor
Port F	Dip Tube Silicone, Silicone tubing 3/8" x 5/8" (80 mm), M-Opta SFT-D to connect ATF system
Port G	Septum for needle-free sampling, FM-Luer
Port H	Gas Outlet Filter with Check Valve, M-Luer
Port I	Gas Inlet Filter 1/4" Hose barb
Port J	BioPAT® ViaMass sensor

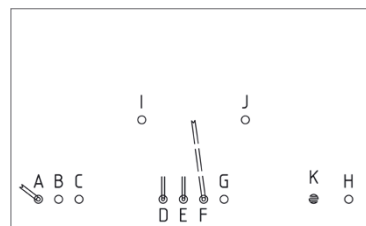


Flexsafe® RM 50L ATF ViaMass

DFP050L--ATVM

Ports

Port A	Dip Tube Silicone, C-Flex® 374 tubing 1/4" x 7/16" (1000 mm), FM-MPC
Port B	C-Flex® 374 tubing 1/8" x 1/4" (1000 mm), FM-Luer
Port C	Silicone tubing 3/16" x 5/16" (50 mm), FM-Luer
Port D	DO sensor
Port E	pH sensor
Port F	Dip Tube Silicone, Silicone tubing 3/8" x 5/8" (80 mm), M-Opta SFT-D to connect ATF system
Port G	Septum for needle-free sampling, FM-Luer
Port H	C-Flex® 374 tubing 1/4" x 7/16" (1000 mm), M-MPC
Port I	Gas Outlet Filter with Check Valve, M-Luer
Port J	Gas Inlet Filter 1/4" Hose barb
Port K	BioPAT® ViaMass sensor

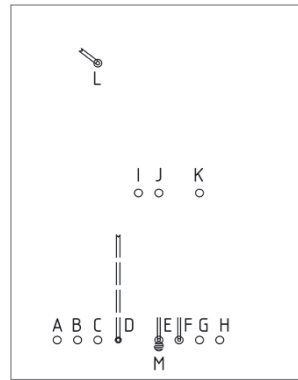


Flexsafe® RM 100L ATF ViaMass

DFP100L--ATVM

Ports

Port A	C-Flex® 374 tubing 3/8" × 5/8" (1000 mm), M-MPC
Port B	Silicone tubing 3/16" × 5/16" (50 mm), FM-Luer
Port C	C-Flex® 374 tubing 1/8" × 1/4" (1000 mm), FM-Luer
Port D	Dip Tube Silicone, Silicone tubing 1/2" × 3/4" (150 mm), M-Opta SFT-I to connect ATF system
Port E	DO sensor
Port F	pH sensor
Port G; H	Septum for needle-free sampling, FM-Luer
Port I	Gas Outlet Filter, M-Luer
Port J; K	Gas Inlet Outlet Filter 1/4" Hose barb
Port L	Dip Tube Silicone, C-Flex® 374 tubing 3/8" × 5/8" (1000 mm), M-MPC
Port M	BioPAT® ViaMass sensor

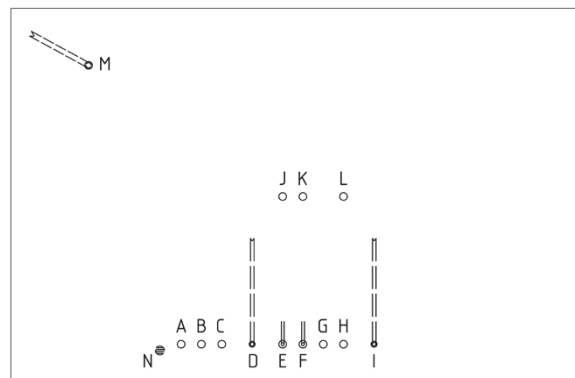


Flexsafe® RM 200L ATF ViaMass

DFP200L--ATVM

Ports

Port A	C-Flex® 374 tubing 3/8" × 5/8" (1000 mm), M-MPC
Port B	Silicone tubing 3/16" × 5/16" (50 mm), FM-Luer
Port C	C-Flex® 374 tubing 1/8" × 1/4" (1000 mm), FM-Luer
Port D; I	Dip Tube Silicone, Silicone tubing 1/2" × 3/4" (150 mm), M-Opta SFT-I to connect ATF system
Port E	DO sensor
Port F	pH sensor
Port G; H	Septum for needle-free sampling, FM-Luer
Port J	Gas Outlet Filter, M-Luer
Port K; L	Gas Inlet Filter 1/4" Hose barb
Port M	Dip Tube Silicone, C-Flex® 374 tubing 3/8" × 5/8" (1000 mm), M-MPC
Port N	BioPAT® ViaMass sensor



Ordering Information

Bag Accessories

Order Code	Description
DS-----GF	Light conductor cable for Flexsafe® RM optical and perfusion (1 piece)
DS-----CGF	Clamp for fiber optic cable fixation (1 piece)
DS-----CV	Check valves for outlet filter of Flexsafe® RM (50 pcs)
DZ-----R2FH	Exhaust filter heater Flexsafe® RM
DZ-----R3FH	Exhaust filter heater Flexsafe® RM, type Midisart
DZ-----BH1	Flexsafe® RM Harvest Device for gravimetric harvesting

C-Flex® and PharMed® are registered trademarks of Saint-Gobain Performance Plastics Corporation.

Minimum Order Quantities

Article Number	Product Description	Quantity per Order Code Bags per Box	Min. Order Quantity Number of Bags	Min. Order Quantity Number of Boxes
Flexsafe® RM Basic Bags				
DFB001L	Flexsafe® RM 1L basic	5	10	2
DFB002L	Flexsafe® RM 2L basic	5	5	1
DFB002L----01SC	Flexsafe® RM 2L basic SC	5	10	2
DFB010L	Flexsafe® RM 10L basic	5	5	1
DFB010L----01SC	Flexsafe® RM 10L basic SC	5	10	2
DFB020L	Flexsafe® RM 20L basic	5	5	1
DFB020L----01SC	Flexsafe® RM 20L basic SC	5	10	2
DFB050L	Flexsafe® RM 50L basic	5	5	1
DFB050L----01SC	Flexsafe® RM 50L basic screw cap	5	10	2
DFB050L----01US	Flexsafe® RM 50L basic US rocker	5	5	1
DFB100L	Flexsafe® RM 100L basic	2	4	2
DFB200L	Flexsafe® RM 200L basic	2	4	2
Flexsafe® RM Optical Bags				
DFO002L	Flexsafe® RM 2L optical	5	5	1
DFO002L----01SC	Flexsafe® RM 2L optical SC	5	10	2
DFO010L	Flexsafe® RM 10L optical	5	5	1
DFO010L----01SC	Flexsafe® RM 10L optical SC	5	10	2
DFO020L	Flexsafe® RM 20L optical	5	5	1
DFO020L----01SC	Flexsafe® RM 20L optical SC	5	10	2
DFO050L	Flexsafe® RM 50L optical	5	5	1
DFO050L----01SC	Flexsafe® RM 50L optical SC	5	10	2
DFO100L	Flexsafe® RM 100L optical	2	4	2
DFO200L	Flexsafe® RM 200L optical	2	4	2

Article Number	Product Description	Quantity per Order Code Bags per Box	Min. Order Quantity Number of Bags	Min. Order Quantity Number of Boxes
Flexsafe® RM Perfusion Bags				
DFP002L--SM	Flexsafe® RM 2L perfusion 1.2 µm	3	3	1
DFP010L--SM	Flexsafe® RM 10L perfusion 1.2 µm	3	3	1
DFP020L--SM	Flexsafe® RM 20L perfusion 1.2 µm	3	3	1
DFP050L--SM	Flexsafe® RM 50L perfusion 1.2 µm	3	3	1
DFP002L--AT	Flexsafe® RM 2L perfusion ATF	3	3	1
DFP010L--AT	Flexsafe® RM 10L perfusion ATF	3	3	1
DFP020L--AT	Flexsafe® RM 20L perfusion ATF	3	3	1
DFP050L--AT	Flexsafe® RM 50L perfusion ATF	3	3	1
DFP100L--AT	Flexsafe® RM 100L perfusion ATF	2	4	2
DFP200L--AT	Flexsafe® RM 200L perfusion ATF	2	4	2
Flexsafe® RM with integrated ViamaSS Sensor				
DFB010L----VM	Flexsafe® RM 10L basic ViaMass	5	5	1
DFB020L----VM	Flexsafe® RM 20L basic ViaMass	5	5	1
DFB050L----VM	Flexsafe® RM 50L basic ViaMass	5	5	1
DFO002L--VM	Flexsafe® RM 2L optical ViaMass	3	3	1
DFO010L----VM	Flexsafe® RM 10L optical ViaMass	5	5	1
DFO020L----VM	Flexsafe® RM 20L optical ViaMass	5	5	1
DFO050L----VM	Flexsafe® RM 50L optical ViaMass	5	5	1
DFO100L----VM	Flexsafe® RM 100L opt ViaMass	2	4	2
DFO200L----VM	Flexsafe® RM 200L opt ViaMass	2	4	2
DFT002L--SMVM1	Flexsafe® RM TX 2L perf. ViaMass, TPE	3	3	1
DFT002L--SMVM2	Flexsafe® RM TX 2L perf. ViaMass, PVC	3	3	1
DFP002L--SMVM	Flexsafe® RM 2L perfusion ViaMass	3	3	1
DFP010L--SMVM	Flexsafe® RM 10L perfusion ViaMass	3	3	1
DFP020L--SMVM	Flexsafe® RM 20L perfusion ViaMass	3	3	1
DFP050L--SMVM	Flexsafe® RM 50L perfusion ViaMass	3	3	1
DFP100L--SMVM	Flexsafe® RM 100L perfusion ViaMass	2	2	1
DFP200L--SMVM	Flexsafe® RM 200L perfusion ViaMass	2	2	1
DFP010L--ATVM	Flexsafe® RM 10L ATF ViaMass	3	3	1
DFP020L--ATVM	Flexsafe® RM 20L ATF ViaMass	3	3	1
DFP050L--ATVM	Flexsafe® RM 50L ATF ViaMass	3	3	1
DFP100L--ATVM	Flexsafe® RM 100L ATF ViaMass	2	4	2
DFP200L--ATVM	Flexsafe® RM 200L ATF ViaMass	2	4	2

Sales and Service Contacts

For further contacts, visit www.sartorius-stedim.com

Europe

Germany

Sartorius Stedim Biotech GmbH
August-Spindler-Strasse 11
37079 Goettingen
Phone +49.551.308.0

Sartorius Stedim Systems GmbH
Robert-Bosch-Strasse 5-7
34302 Guxhagen
Phone +49.5665.407.0

France

Sartorius Stedim FMT S.A.S.
ZI des Paluds
Avenue de Jouques - CS 91051
13781 Aubagne Cedex
Phone +33.442.845600

Sartorius Stedim France SAS
ZI des Paluds
Avenue de Jouques - CS 71058
13781 Aubagne Cedex
Phone +33.442.845600

Austria

Sartorius Stedim Austria GmbH
Modecenterstrasse 22
1030 Vienna
Phone +43.1.7965763.18

Belgium

Sartorius Stedim Belgium N.V.
Rue Colonel Bourg 105
1030 Bruxelles
Phone +32.2.756.06.80

Hungary

Sartorius Stedim Hungária Kft.
Kagyló u. 5
2092 Budakeszi
Phone +36.23.457.227

Italy

Sartorius Stedim Italy S.r.l.
Via dell'Antella, 76/A
50012 Antella-Bagno a Ripoli (FI)
Phone +39.055.63.40.41

Netherlands

Sartorius Stedim Netherlands B.V.
Phone +31.30.60.25.080
filtratie.nederland@sartorius-stedim.com

Poland

Sartorius Stedim Poland Sp. z o.o.
ul. Wrzesinska 70
62-025 Kostrzyn
Phone +48.61.647.38.40

Russian Federation

LLC "Sartorius Stedim RUS"
Vasilyevsky Island
5th line 70, Lit. A
199178 St. Petersburg
Phone +7.812.327.53.27

Spain

Sartorius Stedim Spain, S.A.U.
Avda. de la Industria, 32
Edificio PAYMA
28108 Alcobendas (Madrid)
Phone +34.913.586.098

Switzerland

Sartorius Stedim Switzerland AG
Ringstrasse 24 a
8317 Tagelswangen
Phone +41.52.354.36.36

U.K.

Sartorius Stedim UK Ltd.
Longmead Business Centre
Blenheim Road, Epsom
Surrey KT19 9 QQ
Phone +44.1372.737159

Ukraine

LLC "Sartorius Stedim RUS"
Post Box 440 "B"
01001 Kiev, Ukraine
Phone +380.44.411.4918

Americas

USA

Sartorius Stedim North America Inc.
5 Orville Drive, Suite 200
Bohemia, NY 11716
Toll-Free +1.800.368.7178

Argentina

Sartorius Argentina S.A.
Int. A. Ávalos 4251
B1605ECS Munro
Buenos Aires
Phone +54.11.4721.0505

Brazil

Sartorius do Brasil Ltda
Avenida Senador Vergueiro 2962
São Bernardo do Campo
CEP 09600-000 - SP- Brasil
Phone +55.11.4362.8900

Mexico

Sartorius de México, S.A. de C.V.
Libramiento Norte de Tepotzotlan s/n,
Colonia Barrio Tlacateco,
Municipio de Tepotzotlan,
Estado de México,
C.P. 54605
Phone +52.55.5562.1102
leadsmex@sartorius.com

Asia | Pacific

Australia

Sartorius Stedim Australia Pty. Ltd.
Unit 5, 7-11 Rodeo Drive
Dandenong South Vic 3175
Phone +61.3.8762.1800

China

Sartorius Stedim (Shanghai)
Trading Co., Ltd.
3rd Floor, North Wing, Tower 1
No. 4560 Jinke Road
Zhangjiang Hi-Tech Park
Pudong District
Shanghai 201210, P.R. China
Phone +86.21.6878.2300

Sartorius Stedim (Shanghai)
Trading Co., Ltd.
Beijing Branch Office
No. 33 Yu'an Road
Airport Industrial Park Zone B
Shunyi District, Beijing 101300
Phone +86.10.8042.6501

Sartorius Stedim (Shanghai)
Trading Co., Ltd.
Guangzhou Branch Office
Room 1105
Xing Guang Ying Jing Building
No. 119, Shui Yin Road
Yue Xiu District, Guangzhou 510075
Phone +86.20.3836.4193

India

Sartorius Stedim India Pvt. Ltd.
#69/2-69/3, NH 48, Jakkasandra
Nelamangala Tq
562 123 Bangalore, India
Phone +91.80.4350.5250

Japan

Sartorius Stedim Japan K.K.
4th Fl., Daiwa Shinagawa North Bldg.
8-11, Kita-Shinagawa 1-chome
Shinagawa-ku, Tokyo, 140-0001 Japan
Phone +81.3.4331.4300

Malaysia

Sartorius Stedim Malaysia Sdn. Bhd.
Lot L3-E-3B, Enterprise 4
Technology Park Malaysia
Bukit Jalil
57000 Kuala Lumpur, Malaysia
Phone +60.3.8996.0622

Singapore

Sartorius Stedim Singapore Pte. Ltd.
10 Science Park Rd
The Alpha #02-13/14
Singapore Science Park II
Singapore 117684
Phone +65.6872.3966

South Korea

Sartorius Korea Biotech Co., Ltd.
8th Floor, Solid Space B/D,
PanGyoYeok-Ro 220, Bundang-Gu
SeongNam-Si, GyeongGi-Do, 463-400
Phone +82.31.622.5700



▶ www.sartorius-stedim.com