



MicropreSure® On-line Filtration Monitors

Ready-to-use sampling and culturing devices for in-process testing of bottled water, wine, beer and soft drinks

- ▶ *Fast and reliable in-process collection*
- ▶ *Closed design avoids extraneous contamination*
- ▶ *Aseptic technique is simplified since no membrane handling is required*
- ▶ *Continuous on-line sampling and filtration in one step*
- ▶ *Increased sample sensitivity with larger sampling volumes*

Microbiological monitoring is critical and sometimes difficult especially when contaminant levels are low. The best microbial monitoring program will include trend analysis during which levels of microbial contamination are monitored over the long term. Any fluctuations in levels of microbial contamination—especially an upward trend coincidental with a process, raw material or equipment change can be an early warning that something more serious might be occurring. Trend monitoring cannot be implemented unless sufficient sample volume is tested, to ensure the microorganism count will be representative.

By reducing the sampling process to a few simple steps within a closed system, the MicropreSure On-line Filtration Monitor improves in-process microbiological testing for beverage producers. Trend monitoring can be accomplished simply and reliably by using MicropreSure monitors to sample purified water, CIP rinse water and final product before and after the last filtration step.

Saves Steps, Speeds In-Process Sampling

The MicropreSure On-line Filtration Monitor saves steps and speeds sampling, providing an easy tool to track the cleanliness of beverage production lines. It uses the pressure in tanks or pressurized lines to process and collect samples through a microporous membrane within an enclosed chamber. And because the single-use monitors are securely locked together, sampling pressurized water lines will not create water leaks.

No Risk of External Contamination

MicropreSure monitors are closed throughout the entire test, so there's no risk of adventitious contamination while sampling in a production

environment. Organisms are captured on the membrane right at the collection site, ensuring a representative sample and reliable test results. Membrane handling is not required, so operator skill and environmental control are not critical.

Less Equipment to Handle

MicropreSure On-line Filtration Monitors are shipped sterilized and ready to use. Operators won't need to sterilize bulky sample containers and transport them back to the lab. After processing, microbes are contained and protected within the lightweight MicropreSure devices that are easily carried.

Continuous On-line Sampling

A limited 100 mL sample may not reveal all microbial contaminants. The MicropreSure monitor processes any volume sample through its enclosed housing. In addition, the strong fit between the Luer fitting and the sanitary sampling valve means you can continuously sample over an extended period of time. Results can then reflect the average contamination over a batch, a shift, or a day.

Convenient, In-Process Microbiological Analysis

MicropreSure monitors are an innovative, convenient tool that allows beverage samples to be aseptically prepared, right at the collecting site. The membrane remains protected in its own housing until microbial enumeration.

MicropreSure On-line Filtration Monitors can Replace Traditional Multiple-Step Methods

- No assembly
- No sterilization
- No sample containers to transport
- No risk of external contamination
- No membrane handling

In-Process Water Analysis

Fast and easy preparation of in-process water samples using the MicropreSure On-line Filtration Monitor.



1. *Sample* directly through the MicropreSure monitor via the sanitary sampling valve.



2. *Remove* excess liquid remaining in the dome with a syringe.



3. *Insert* broth medium via the base or the dome and remove any excess media with a syringe then incubate the MicropreSure monitor.

Specifications

Dimensions

Monitor Height:	45 mm (1.75 in.)
Filter Diameter:	47 mm
Filter Area:	9.10 cm ²
Filter Pore Size:	0.45 µm
Pressure Limit at 25 °C:	3 bar (43.5 psi)
Pressure Limit at 90 °C:	1 bar (14.5 psi)
Temperature Range:	5 °C – 90 °C

Materials

Filtration Chamber/Base:	Polycarbonate
Membrane:	Mixed esters of cellulose, white or black, gridded
Filtration Support:	Cellulose pad

This Millipore product is manufactured in accordance with a Quality Management System that is approved by an accredited registering body to the appropriate ISO® 9000 Quality Systems Standard.

Ordering Information

MicropreSure On-Line Filtration Samplers, Sterilized

Gridded Membrane Color	Pore Size	Qty/Pk	Catalogue No.
White	0.45 µm	48	MSHA WGM 48
Black	0.45 µm	48	MSHA BGM 48

MSOpener™ Manifold

Description	Qty/Pk	Catalogue No.
Complete vacuum manifold for accessing membrane	1	MSOP ENR 01
Sterile Sampling Tube with Luer Fitting	100	M000 000 01

Media (2 mL ampoules)

Tomato Juice Broth	20	MX00 TJ2 20
TGE with Indicator	50	M000 00P 2T
TSB	20	MX00 TT2 20
Wallerstein® Differential Broth	20	MX00 WD2 20
	50	M000 00P 2D
Wallerstein® Nutrient Broth	20	MX00 WN2 20
	50	M000 00P 2N
Yeast and Mold Broth	20	MX00 YM2 20

Valves and Valve Adapters

Identifying the Sampling Port Outlet and Choosing the Valve Adapter

If the sampling port outlet is a male Luer port (such as an ESP or Milliflex®-P valve), use the MicropreSure On-line Filtration Monitor without a sampling port adapter.

If the sampling port outlet has a Tri-Clover® connection, install a MicropreSure sanitary sampling valve. Use the correct valve as follows:

Valve	Connection Size	Catalogue No.
Tri-Clover	1 1/2 in.	MXPE SPT CL
NPT	1/4 in.	MXPE SP1 4N
NPT	1/8 in.	MXPE SP1 8N

Valve Adapter	Outer Diameter	Catalogue No.
Simple tubing	3 mm	MSOS T03 03
	6 mm	MSOS T06 03
	8 mm	MSOS T08 03
	12 mm	MSOS T12 03
	20 mm	MSOS T20 03
	3/16 in.	MSST 316 03
	1/4 in.	MSOS T14 03
	3/8 in.	MSOS T38 03
Male threaded connection	1/8 in. Gas	MSFM 18G 03
	1/8 in. NPT	MSFM 18N 03
	1/4 in. Gas	MSFM 14G 03
	1/4 in. NPT	MSFM 14N 03
Female threaded connection	1/8 in. Gas	MSLM 18G 03
	1/8 in. NPT	MSLM 18N 03
	1/4 in. Gas	MSLM 14G 03
	1/4 in. NPT	MSLM 14N 03
Tri-Clover	3/4 in.	MSOT C34 03
	Mini Clamp	MSOT CMC 03
	1 1/2 in.	MSOT C12 03

To Place an Order or Receive Technical Assistance

For additional information call your
nearest Millipore office:

In the U.S. and Canada, call toll-free
1-800-MILLIPORE (1-800-645-5476)

In the U.S., Canada and Puerto Rico,
fax orders to **1-800-MILLIFX
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