

There is more to clean environments than meets the eye

Leading solutions for air monitoring

The new MAS-100 VF[®]



VF = Volume Flow

EMD Millipore Corp. is a subsidiary of Merck KGaA, Darmstadt, Germany

Overview

The new MAS-100 VF® active Air Sampler was especially developed for controlled environments requiring microbial control. Regulatory expectations require air monitoring in manufacturing facilities because microbial contamination may influence quality and reduce shelf life. The MAS-100 VF® uses 90 – 100 mm standard Petri dishes, is easy to handle, easy to operate and its compact design is ideal for monitoring your environment. Its electronic speed control maintains an accurate flow rate.

Like all MAS-100® systems, the MAS-100 VF® samples at a flow rate of 100 litres per minute. The perforated lid is the same as on the standard MAS-100® sampler.

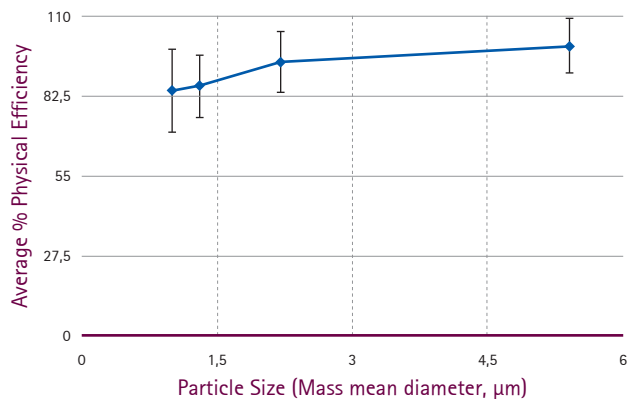
The simple user menu is easily accessed and operated by a single touch slide control. Sampling volumes are programmable from 1 – 1,000 litres, with 5 preset volumes to ensure reproducible results.



Functional principle

The MAS-100 VF® is an Air Sampler that is based on the Anderson impaction principle. The resulting air flow is directed onto a standard Petri dish containing an agar medium. After the collection cycle, the Petri dish is incubated and the colonies subsequently counted.

MAS-100 VF® Physical Efficiency



Advantages

- Compact design
- Calibration certificate on instrument
- Menu operated software
- Easy handling
- Unique directional air flow
- Ideal for USP <797> monitoring
- Same physical efficiency performance as other instruments of the MAS-100® Family

Overview Touch Panel

Screen with back light
(flashes to show status)

Left key: Back/decrease value
(to go one step back hold key
for at least 2 seconds)

Slider: Touch slider is enabled when
left and right keys are illuminated

Start key: Switch ON/OFF (hold
key for at least 2 seconds) Start/Stop
measurement, confirm values

Clock key: To configure date/time,
hold for more than 4 seconds

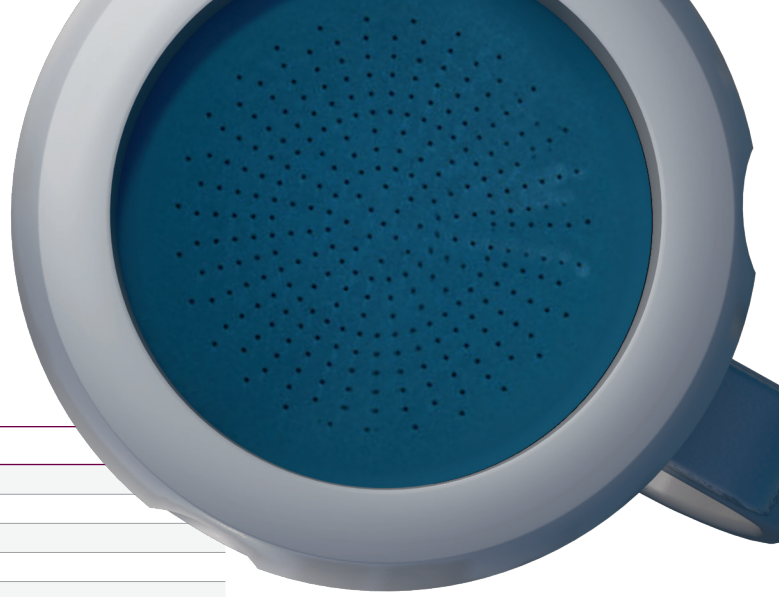
All keys have backlight:
For each menu, the enabled
keys are illuminated

Right key: Next/increase value
(to return to home screen hold
key for at least 2 seconds)

Status LED:
White: Standby
Flashing white: Running
Flashing red/green: Warning
Red + display flashing: Alarm

Key Features

- Validated using heipha® culture media
- New, easy to use, slide controls
- 5 preset volumes
- 300 x 0.6 mm sample head 100 LPM flow rate
- Impaction speed of 19.6 m/s
- New on-board software platform
- Instrument acts as a server similar to an internet mode
- PDF of calibration certificate on instrument
- Open system: use of standard Petri dishes
- d50 value better than 0.8 µm
- Event log stored in the MAS-100 VF®
- Electronic flow detection
- Time and date displayed
- Calibration reminder (programmable from 1 – 12 months)
- Li-ion rechargeable battery, intelligent charging



Technical Specifications

Feature	Specification
Height	179 mm
Diameter	109 mm
Depth with handle	148 mm
Weight	1.75 kg (with sampling head)
Material	Anodized aluminum
Diameter of sampling head	10 cm
Nominal airflow	100 LPM \pm 4 %
Sampling volume	Preset values: 50, 100, 250, 500 and 1,000 litres Each volume can be preset to a value from 1 to 1,000 litres
Airflow regulation	Electronic
Petri dish support	For standard Petri dishes and contact plates
Tripod screw	1/4" and 3/8" for use with optional tripod
Rechargeable batteries	Rechargeable Li-ion battery pack
Motor	6V
Display	Alphanumeric liquid crystal display, 2 x 8 characters
RTC battery	RTC (real time clock) battery – Lifetime: Approximately 10 years
Operating conditions	Temperature 5 to 40°C, humidity 0 to 80 % RH (non-condensing)
Control unit	Microprocessor
CE Approval	Emission: EN 61326:1997/A1:1998, EN 55022:1998 +A1:00 Immunity: EN 61326-1:1997/A1:1998, EN 61000-4-2:1995 +A1:98 +A2:01, EN 61000-4-3:1998 +A1:98 +A2:01, EN 61000-4-4:1995 +A1:01 +A2:01, EN 61000-4-5:1995 +A1:01, EN 61000-4-6:1996 +A1:01, EN 61000-4-8:1993 +A1:01, EN 61000-4-11:1994 +A1:98 +A2:01
Power Unit/Battery Charger	100 to 240 V AC/47 – 63 Hz
Output	5 V DC/2000 mA

Ordering Information

Description	Catalog No.
MAS-100 VF® Air Sampler	1.17103.0001

Functionality Testing Report

Description	Catalog No.
MAS-100 VF® Functionality Testing Report	MAVFLTFT1

Accessories

Description	Catalog No.
MAS-100 NT® Extra perforated lid (300-hole)	1.09195.0001
MAS-100 VF® Power Supply	1.17104.0001
MAS-100 VF® Petri dish clamps, 3	1.17171.0001



Related products

heipha® ICR Settle Plates (triple-bagged, gamma-irradiated, non-lockable)	Package size	Ord. No.
Sabouraud Dextrose Agar – ICR	20	1.46577.0020
	120	1.46577.0120
Sabouraud Dextrose Agar + LT – ICR (SDA with lecithin and Polysorbate (Tween®) 80)	20	1.46081.0020
	120	1.46081.0120
Sabouraud Dextrose Agar + LHTH – ICR 30 ml (SDA with lecithin, Polysorbate (Tween®) 80, histidine and thiosulfate)	20	1.46005.0020
	120	1.46005.0120
Sabouraud Dextrose Agar selective + LHTH – ICR (SDA with lecithin, Polysorbate (Tween®) 80, histidine and thiosulfate and irradiation-resistant antibiotics for growth inhibition of accompanying bacterial flora)	20	1.46016.0020
	120	1.46016.0120
Tryptic Soy Agar – ICR	20	1.46001.0020
	120	1.46001.0120
Tryptic Soy Agar + LT – ICR (TSA with lecithin and Polysorbate (Tween®) 80)	20	1.46050.0020
	120	1.46050.0120
Tryptic Soy Agar + LHTH – ICR (TSA with lecithin, Polysorbate (Tween®) 80, histidine and thiosulfate)	20	1.46069.0020
	120	1.46069.0120
Tryptic Soy Agar + LT + Cephas – ICR (TSA with lecithin and Polysorbate (Tween®) 80 and specific beta-lactamase mixture for inactivation of a broad spectrum of penicillins, cephalosporins and carbapenems)	20	1.46076.0020
	120	1.46076.0120
Tryptic Soy Agar + LHTH + Penase – ICR (TSA with lecithin, Polysorbate (Tween®) 80, histidine, thiosulfate and beta-lactamase for inactivation of penicillins)	20	1.46013.0020
	120	1.46013.0120
Vegetable Peptone Agar + LHTH – ICR (PSA (caseine peptone replaced by vegetable peptone) with lecithin, Polysorbate (Tween®) 80, histidine and thiosulfate)	20	1.46658.0020
	120	1.46658.0120

heipha® ICRplus Settle Plates (triple-bagged, gamma-irradiated, lockable)	Package size	Ord. No.
TSA + LHTH – ICR+ (Tryptic Soy Agar with neutralizers lecithin, Polysorbate (Tween®) 80, histidine and sodium thiosulfate)	20	1.46683.0020
	120	1.46683.0120
TSA + LT – ICR+ (Tryptic Soy Agar with neutralizers lecithin and Polysorbate (Tween®) 80)	20	1.46684.0020
	120	1.46684.0120
TSA – ICR+ (Tryptic Soy Agar)	20	1.46685.0020
	120	1.46685.0120
Chocolate Agar + LTH – ICR+ (Chocolate Agar with neutralizers lecithin, Polysorbate (Tween®) 80 and histidine)	20	1.46686.0020

heipha® ICR and ICRplus Settle Plates

The heipha® ICR Settle Plates are produced under aseptic conditions, gamma-irradiated and triple-bagged, making them optimal for active air monitoring with MAS-100® Microbial Air Samplers. All of the MAS-100® Air Samplers have been validated according to ISO 14698 using heipha® ICR and ICRplus Settle Plates – they all showed the same reliable results in physical and biological efficiency testing.



Related Services

- **Functionality Testing Report**

Save precious time using our ready-to-use document.

- **On-Site Qualification**

Simplify the execution of your Air Sampler qualification. Our highly trained validation engineers will fill in the Functionality Testing Report in your lab.

- **Service agreements**

Stay efficient and ensure reliability of your Air Sampler over time with our yearly preventative maintenance and extended warranty. Not available in all areas

Please contact your local sales representative for more information or a quotation.



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