Operating Instructions

Microsart e.motion Dispenser

16713----BO | 16713----PS

Membrane Filter Dispenser



1000029800

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1 About These Instructions

1.1 Scope

These instructions apply to the device in the following versions:

Device	Model
Microsart e.motion dispenser with AC adapter	16713----PS
Microsart e.motion dispenser with built-in battery and AC adapter	16713----BO

1.2 Target Groups

These instructions are designed for the following target groups. The target groups must possess the knowledge listed.

Target group	Knowledge/responsibilities
User	The user is familiar with the operation of the device and the associated work processes. They know the dangers that can occur when working with the device and can avoid these dangers. The user has been trained in the operation of the device. Training takes place within the scope of startup and is performed by the operating engineer/laboratory manager or the operator of the device.
Operating engineer/ laboratory manager	The operating engineer/laboratory manager makes decisions about the use and configuration of the device. The operating engineer/laboratory manager is trained in the operation of the device. Training takes places within the scope of startup and is performed by the operator.

Target group	Knowledge/responsibilities
Operator	The operator of the device is responsible for compliance with safety requirements and workplace safety regulations. The operator must ensure that all persons who work on the device have access to the relevant information and have been instructed in work on the device.

1.3 Symbols Used

1.3.1 Warnings

⚠ WARNING
Denotes a danger with risk that death or severe injury may result if it is **not** avoided.

⚠ CAUTION
Denotes a danger with risk that moderate or minor injury may result if it is **not** avoided.

NOTICE
Denotes a danger that can result in property damage if the risk is **not** avoided.

1.3.2 Other Symbols

▶ Required action: Describes actions which must be carried out.

▷ Result: Describes the result of the activities carried out.

2 Safety Instructions

2.1 Intended Use

The Microsart e.motion dispenser is used to dispense membrane filters from their individual packaging. The device is intended for use in microbiological laboratories.

Do **not** use this device in potentially explosive environments. The device may only be used indoors.

The device may only be used with the equipment and under the operating conditions described in the Specifications. You may **not** modify the device or make any technical changes.

Any further use beyond this is considered **improper** and is prohibited. If the equipment is used in a manner not specified by Sartorius, the protection provided by the equipment may be impaired. These instructions are part of the device. The device is intended exclusively for use in accordance with these instructions.

2.2 Personnel Qualification

All persons working on the device must possess the necessary knowledge (for a description, see Chapter "1.2 Target Groups," page 6).

The actions described are addressed to the "user." If individual actions must be carried out by other target groups or by Sartorius Service personnel: The qualification required will be indicated.

2.3 Significance of These Instructions

Failure to follow the instructions in this manual can have serious consequences, e.g. exposure of individuals to electrical, mechanical or chemical hazards.

- Before working with the device: Read the instructions carefully and in full.
- If the instructions are lost: Request a replacement or download the latest version from the Sartorius website (www.sartorius.com).
- The information contained in these instructions must be available to all individuals working on the device.

2.4 Proper Working Order of the Device

Damaged equipment or worn-out parts can cause malfunctions or lead to hard-to-detect hazards.

- Only operate the device when it is safe and in perfect working order.
- Have any malfunctions or damage repaired immediately by Sartorius Service.

2.5 Damage to the Electrical Equipment

Electrical switching elements are installed in the device. Damage to the insulation or individual components can be fatal. Contact with parts under voltage represents an immediate risk of death.

- Check the device for defects, such as loose connections or damage to the insulation.
- If the electrical equipment is defective, immediately switch off the power supply and contact Sartorius Service.
- Keep live parts away from moisture. Moisture can cause short circuits.

2.6 Work on the Electrical Equipment

Work on and modifications to the electrical equipment of the device may only be carried out by Sartorius Service personnel. The device may only be opened by Sartorius Service personnel.

2.7 Accessories, Consumables, and Spare Parts

The use of unsuitable accessories, consumables and spare parts can affect the functionality of the device, be hazardous and have the following consequences:

- Risk of injury to persons
- Damage to the device
- Malfunctions of the device
- Device failure

- ▶ Only use accessories, consumables, and spare parts supplied by Sartorius. Information on operational quality is available upon request from Sartorius.
- ▶ Only use accessories, consumables, and spare parts that are in proper working order.

2.8 Conduct in an Emergency

If there is immediate danger of personal injury or equipment damage, e.g. due to malfunctions or dangerous situations, take the device out of operation immediately.

- ▶ Disconnect the device from the power supply. To do so, set the on/off switch to position "0" and pull out the AC connection cable.
- ▶ Have any malfunctions repaired immediately by Sartorius Service.

2.9 Personal Protective Equipment

Personal protective equipment protects against risks arising from the equipment and the material being processed.

Protective equipment designation	Explanation/examples
Protective work clothing	Tight-fitting work clothing with low tear resistance, tight sleeves and without any projecting parts. Protects against being drawn in by moving parts or against chemicals, heat and injuries.
Head covering	Protects hair from being pulled into moving parts.

- Wear appropriate personal protective equipment.
- Also follow any instructions posted in the work area pertaining to personal protective equipment.

2.10 Unintentional or Unexpected Starting of the Device

If the on/off switch is set to position "I": The device may start up unintentionally after a power failure or after the power supply is connected. Hair or clothing may become caught or trapped in rotating or moving parts. This can lead to injuries.

- Set the on/off switch to position "0" in the event of a power failure.
- Always set the on/off switch to position "0" before commissioning the device.
- Wear personal protective equipment.

2.11 Rotating or Moving Parts

If clothing or body parts come into contact with rotating or moving parts: Clothing and body parts may become caught. This can lead to severe injury.

- Wear personal protective equipment.
- Carry out all work on the device, such as inserting, changing, and removing membrane filter strips, only according to the instructions.

3 Device Description

3.1 Device Overview

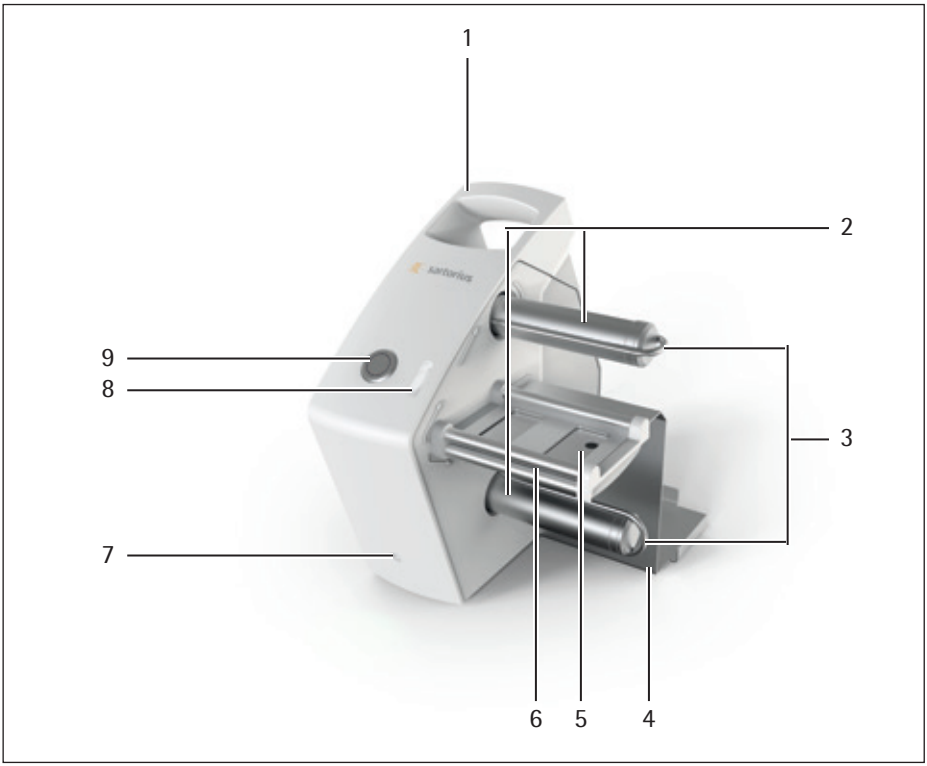


Fig. 1: Microsart e.motion dispenser, front view

No.	Name	Description
1	Handle	Used to transport the device.
2	Spool rollers	Spool transparent film and paper of empty membrane filter strips.
3	Holding clamps	Fix the membrane filter strips on the spool rollers.
4	Box holder	Holds the membrane filter package
5	Position sensor	Detects the positions of the membrane filters and shows the number of membrane filters still available.
6	Filter output	Separates the membrane filters from the membrane filter strip.
7	Power LED	Indicates whether the device has powered up.
8	Status LED with sensor	Shows the operating status of the device and starts the contact-free dispensing of a membrane filter in automatic mode.
9	Illuminated key	Used for the manual dispensing of the membrane filters and indicates manual mode.

3.2 Electrical Connections

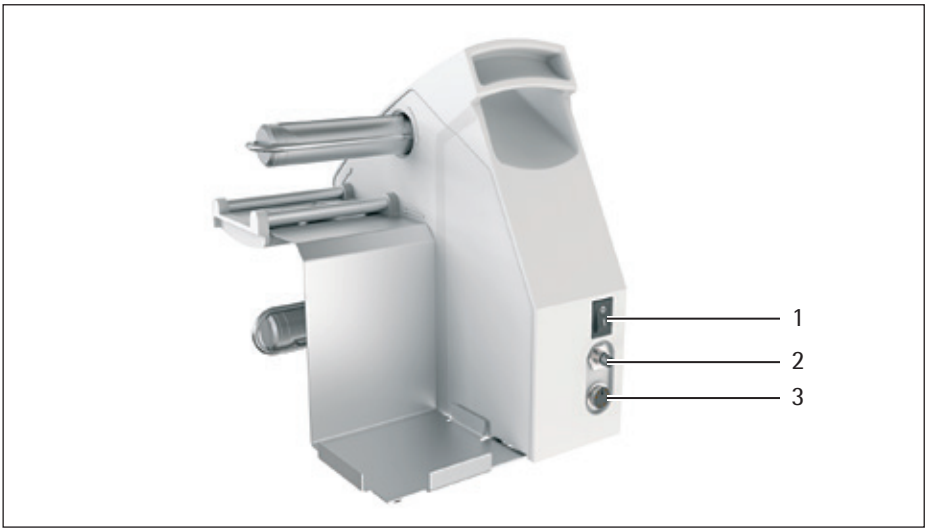


Fig. 2: Microsart e.motion dispenser, back view

No.	Name
1	On/off switch
2	Port for AC adapter (power supply)
3	Port for foot switch

3.3 Membrane Filter Dispensing

The device transports the membrane filter strip through the filter output and separates it from the individual packaging. The transparent film and paper of the empty membrane filter strips are spooled on the spool rollers.

The dispensed membrane filters are used for the microbiological examination of liquids that can be filtered and are placed in a culture medium and incubated after filtration. Quantification, i.e., the determination of the germ count, then follows.

Manual Mode

In manual mode, the membrane filters are dispensed by pressing the illuminated key or operating the foot switch. The device is set to this mode upon delivery.

Automatic Mode

In automatic mode, the membrane filters are dispensed by sensor without touching the device.

4 Installation

4.1 Scope of Delivery

The equipment supplied includes the following components:

Product	Quantity
Microsart e.motion dispenser Model: 16713----BO | Model: 16713----PS	1
AC adapter with country-specific power cord	1
Operating Instructions	1

4.2 Prerequisites for Installation

Procedure

▶ Make sure that the following conditions are met at the place of installation:

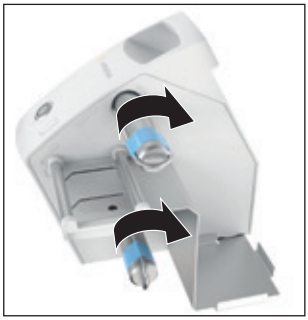
Condition	Characteristics
Ambient conditions	Suitability of the device has been checked according to the ambient conditions (see Chapter 13.2, page 37).
Setup surface	– Stable and level – Sufficient space for the device (for space requirements, see Chapter "13.1 Dimensions and Weight," page 37)

Condition	Characteristics
Access to operation-relevant parts	Convenient and reliable

4.3 Unpacking

Procedure

- ▶ Unpack the device.
- ▶ If the device is stored: Observe the information on storage (see Chapter 11.1, page 34).
- ▶ Install the device at the intended location.
- ▶ Remove the adhesive strips from the spool rollers.
- ▶ Keep all parts of the original packaging, e.g. to return the device.



5 Getting Started

5.1 Connecting the AC Adapter

Procedure

- **NOTICE** Device damage may be caused by using an unsuitable AC adapter! Using third-party AC adapters that are **not** authorized by Sartorius may cause damage to the device.
  - Only use Sartorius AC adapters.
  - If no suitable AC adapter is available: Contact Sartorius Service.
- Connect the country-specific power cord to the AC adapter.
- Connect the AC adapter to the designated port on the device and screw in tight.



5.2 Connecting the Power Supply

⚠ WARNING

Risk of fatal electric shock and device damager due to incorrect handling of power cords!

Incorrect handling of power cords can cause fatal electric shock or damage to the device.

- ▶ Connect to the power supply according to the regulations of your specific country.
- ▶ **Never** plug the power cord into the AC wall outlet when it is disconnected from the device.
- ▶ Make sure that the power plug or another suitable disconnecting device for the power supply can be easily reached in case of danger.

Procedure

- ▶ ⚠ **WARNING** Severe injuries caused by using defective power cords!
  - ▶ Check the power cord for damage, e.g., cracks in the insulation.
  - ▶ If the power cord is damaged: Contact Sartorius Service.
- ▶ ⚠ **WARNING** Risk of injury due to rotating spool rollers if device starts up unintentionally! Set the on/off switch to position "0."
- ▶ **NOTICE** Damage due to too high input voltage! Check whether the voltage specifications on the AC adapter match those of the power supply at the setup location.
  - ▶ If the input voltage is too high: Do **not** connect the device to the power supply.
  - ▶ Contact Sartorius Service.

- ▶ Check whether the country-specific power plug matches the power connections at the setup location.
  - ▶ If required: Contact Sartorius Service.
- ▶ Connect the AC adapter to the power supply.
- ▶ If model 16713----BO is to be used in battery operation: Fully charge the battery before starting up for the first time (for charge time, see Chapter "13.3.3 Device with Built-in Battery (Model 16713----BO)," page 39).
- ▶ If a foot switch is to be used: Connect the foot switch connection cable to the foot switch port.

6 Operation

6.1 Inserting the Membrane Filter Strip

Prerequisites

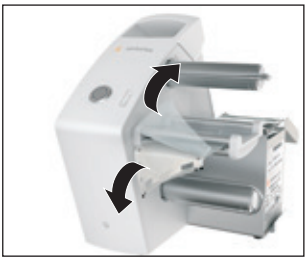
The device is switched off.

Procedure

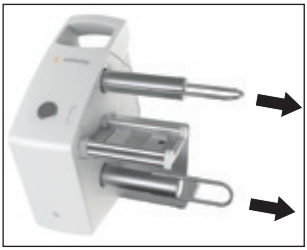


- ⚠ **WARNING** Risk of injury due to rotating spool rollers if device starts up unintentionally! Set the on/off switch to position "0."
- Open the outer packaging of the membrane filter strip and place inside the box holder of the device.
- Pull away the lid of the outer packaging.
- Remove the membrane filter strip from the outer packaging. The first four individual packages are empty.
- Guide the membrane filter strip through the filter output.





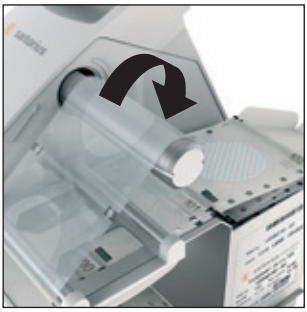
- Carefully separate the transparent film and paper of the membrane filter strip.



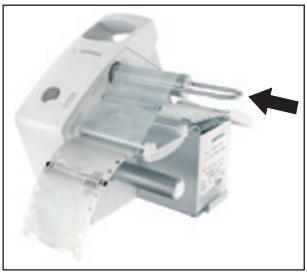
▶ Remove the holding clamps from the top and bottom spool roller.



▶ Place the transparent film over the top spool roller so that it is even and taut. Observe the guidance arrows on the housing, which indicate the direction in which the transparent film must go.



▶ Completely roll the transparent film around the spool roller. To do so, run the edge of the transparent film along the inner marking of the spool roller. The outer marking must remain free.



▶ ⚠ **CAUTION** Risk of injury from the holding clamps! Fingers may be pinched when securing the holding clamps. Carefully insert the holding clamps into both guide grooves of the spool roller.

▶ Secure the transparent film with the holding clamps.



▶ Place the paper over the bottom spool roller so that it is even and taut. Observe the guidance arrows on the housing, which indicate the direction in which the paper must go.



▶ Completely roll the paper around the spool roller. To do so, run the edge of the paper along the outer marking of the spool roller.



▶ ⚠ **CAUTION** Risk of injury from the holding clamps! Fingers may be pinched when securing the holding clamps. Carefully insert the holding clamps into both guide grooves of the spool roller.

▶ Secure the paper with the holding clamps.

▷ Insertion of the membrane filter strip is complete.

6.2 Switching On the Device

Prerequisites

The membrane filter strip is inserted.

Procedure

▶ Set the on/off switch to position "I."
▷ The power LED indicates whether the device has powered up (see table below).
▷ If manual mode is activated: The illuminated key lights up yellow.
▷ If automatic mode is activated: The status LED lights up yellow.

Power-up Status of Microsart e.motion Dispenser, Model 16713----PS

Indicator	Description
LED is green	The power supply is connected. The device is ready for use.
LED is off	The power supply is **not** connected. The device is **not** ready for use.

Power-up Status of Microsart e.motion Dispenser, Model 16713----BO

Indicator	AC operation	Battery operation
LED is green	The battery is fully charged.	There is a lot of battery charge remaining.
LED flashes green	The battery is charging.	–
LED is yellow	–	There is a medium amount of battery charge remaining.
LED is red	–	The battery charge has been used up. Membrane filter dispensing is not possible. – Connect the device to the power supply. – Fully charge the battery.
LED flashes red three times	–	The battery is empty. Membrane filter dispensing is **no longer** possible. – Connect the device to the power supply. – Fully charge the battery.
LED is off	The power supply is **not** connected and the battery is empty. The device is **not** ready for use.	

6.3 Dispensing Membrane Filters in Manual Mode

Prerequisites

- The membrane filter strip is inserted.
- The device is switched on.
- The device is set to manual mode.
- The illuminated key lights up yellow.

Procedure



▶ Press the illuminated key or alternatively, engage the foot switch.
▷ The illuminated key flashes yellow.
▷ If there is a message: The status LED indicates the operating status of the device (see Chapter "8.1 Status LED Messages," page 31).
▷ A membrane filter is dispensed.
▶ Remove the membrane filter carefully using forceps.

6.4 Switching Operating Modes

The device can be used in manual or automatic mode.

If the device is switched off: The previously set operating mode is saved.

Prerequisites

The device is switched on.



Procedure

▶ To switch the operating mode: Hold down the illuminated key for longer than three seconds.
  ▷ If manual mode is activated: The illuminated key lights up yellow.
  ▷ If automatic mode is activated: The status LED lights up yellow.

6.5 Dispensing Membrane Filters in Automatic Mode

NOTICE

Avoid unintentional expenditure of the filter!

Do not expose the device's sensor to direct heat and sunlight. When operating in automatic mode and during extended periods of non-use, switch off the device or switch to manual mode.

Prerequisites

– The membrane filter strip is inserted.
– The device is switched on.
– The device is set to automatic mode.
– The status LED lights up yellow.



Procedure

▶ Trigger membrane filter dispensing by waving your hand over the status LED sensor.
▷ The status LED flashes yellow. If the status LED indicates a different operating status: See Chapter "8.1 Status LED Messages," page 31.
▷ A membrane filter is dispensed.

▷ The status LED continues to flash for several seconds and further membrane filter dispensing is **not** possible. This prevents inadvertent dispensing being triggered when the previously dispensed membrane filter is being removed from the device.

▶ Remove the membrane filter carefully using forceps.

6.6 Changing Membrane Filter Strips

Prerequisites

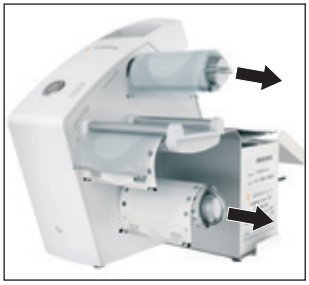
The device is switched off.

Procedure

▶ ⚠ **WARNING** Risk of injury due to rotating spool rollers if device starts up unintentionally! Set the on/off switch to position "0."

▶ Pull the membrane filter strip through the filter output until the next, still-sealed membrane filter appears.

▶ Cut the membrane filter strip in front of the sealed membrane filter.



▶ Remove the holding clamps from the top and bottom spool roller.

▶ Remove the transparent film and paper from the spool rollers.

▶ Pull the unused membrane filter strip downwards out of the filter output and place back in the outer packaging.

▶ Insert the new membrane filter strip (see Chapter 6.1, page 21).

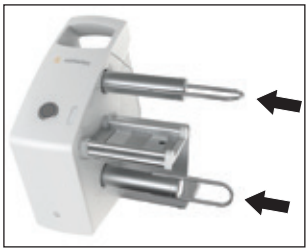
6.7 Removing Empty Membrane Filter Strips

Prerequisites

The device is switched off.

Procedure





- ▶ ⚠ **WARNING** Risk of injury due to rotating spool rollers if device starts up unintentionally! Set the on/off switch to position "0."
- ▶ When the last membrane filter on the membrane filter strip has been dispensed:
  - ▶ Remove the holding clamps from the top and bottom spool roller.
  - ▶ Remove the transparent film and paper from the spool rollers and dispose of them properly.
- ▶ ⚠ **CAUTION** Risk of injury from the holding clamps! Fingers may be pinched when securing the holding clamps. Carefully insert the holding clamps into both guide grooves of the spool rollers.
- ▶ Secure the holding clamps.

7 Cleaning

7.1 Cleaning Device Surfaces

Prerequisites

The device is switched off.

NOTICE

Device damage due to moisture!

The device may be damaged if liquids get inside the housing.

▶ The inside of the housing must **not** come into contact with liquids.

Procedure

▶ Disconnect the device from the power supply.
▶ **NOTICE** Corrosion or damage to the device due to unsuitable cleaning agents!
  ▶ **Do not** use corrosive, chloride-containing and aggressive cleaning agents.
  ▶ **Do not** use cleaning agents that contain abrasive ingredients, e.g. scouring agents, steel wool.
▶ Wipe off the housing and position sensor with a slightly damp cloth. In the event of more severe contamination, use a mild soap solution.

8 Faults

8.1 Status LED Messages

Indicator	Fault	Cause	Correction	Chapter, page
LED flashes slowly red.	The membrane filter is **not** dispensed.	The membrane filter strip is **not** inserted correctly.	Correctly insert the membrane filter strip.	6.1, 21
		The position sensor is dirty.	Clean the position sensor.	7, 30
LED flashes red rapidly.		There is an internal error.	– Switch off the device and disconnect it from the power supply. – Reconnect the device to the power supply and switch it on. – If the fault is not corrected: Contact Sartorius Service.	15, 41

8.2 Faults on the Membrane Filter Strip

Fault	Cause	Correction	Chapter, page
The membrane filter strip gets jammed in the filter output.	The membrane filter strip is **not** inserted correctly.	– Remove the membrane filter strip from the filter output. – Insert the membrane filter strip correctly.	6.1, 21
The membrane filter strip **cannot** be directed through the filter output.	The filter output contains the remains of a membrane filter strip.	– **NOTICE** Damage to the position sensor! – Do **not** touch the window of the position sensor with pointy or sharp objects. – Remove the remains of the membrane filter strip using a flat object. – If required: Clean the position sensor. – Insert the new membrane filter strip.	7, 30 6.1, 21

9 Decommissioning

9.1 Decommissioning the Device

Prerequisites

Operation has ended correctly.

Procedure

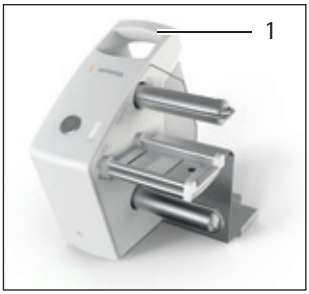
- ▶ Switch off the device.
- ▶ Disconnect the device from the power supply.
- ▶ Unplug the power cord.
- ▶ Remove the membrane filter strip.
- ▶ Disconnect all accessories from the device.
- ▶ Clean the device (see Chapter 7, page 30).

10 Transport

10.1 Transporting the Device

Procedure

- ▶ Decommission the device.
- ▶ ⚠ **NOTICE** Danger of damage to device from improper handling! Do **not** lift the device by the housing.
- ▶ Use the handle (1) to lift and transport the device.



11 Storage and Shipping

11.1 Storage

Procedure

- If the device is in operation:
  - Decommission the device (see Chapter 9.1, page 33).
  - Clean the device (see Chapter 7, page 30).
- Store the device according to the ambient conditions (see Chapter 13.2, page 37).

11.2 Shipping-related Tasks/Returns

You can send defective devices or parts back to Sartorius. Returned devices must be clean, decontaminated, and packed in their original packaging.

Transport damage as well as measures for subsequent cleaning and disinfection of the device or parts by Sartorius shall be charged to sender.

⚠ WARNING

Risk of injury from contaminated devices!

Devices contaminated with hazardous materials (NBC contamination) will **not** be accepted for repair or disposal.

- Observe the instructions for decontamination (Chapter 12.1, page 35).

Procedure

- Decommission the device.
- Fill out the Decontamination Declaration. Use the forms available on our website (www.sartorius.com).
- Enclose the Decontamination Declaration with the delivery documents. The recipient must be able to inspect the completed Decontamination Declaration before removing the device from the packaging.
- Pack the device and its parts in their original packaging.
- Return the device to Sartorius Service. The service addresses for returns can be found on our website (www.sartorius.com).

12 Disposal

12.1 Information on Decontamination

The device does **not** contain any hazardous materials that would necessitate special disposal measures. The cultures and media (e.g. acids, bases) used during the fermentation processes are potentially hazardous materials that could cause biological or chemical hazards.

According to the EU directives (European directive on hazardous substances), the owners of devices that come into contact with hazardous substances are responsible for properly disposing of these devices and to declare such devices when transporting them.

⚠ WARNING

Risk of injury from contaminated devices!

Devices contaminated with hazardous materials (NBC contamination) will **not** be accepted for repair or disposal.

- ▶ Decontaminate devices contaminated with hazardous materials in accordance with local government regulations.

12.2 Disposing of Device and Parts

12.2.1 Information on Disposal

The device and its accessories **do not** belong in your regular household waste, since they are made of high-grade materials which can be recycled and reused. All parts must be disposed of properly by disposal facilities.

The packaging is made of environmentally friendly materials that can be used as secondary raw materials.

The consumables are designed and intended for single-use.

12.2.2 Disposal

Prerequisites

The device has been decommissioned.

Procedure

- Dispose of the device. Follow the disposal instructions on our website (www.sartorius.com).
- In Europe, dispose of old non-rechargeable and rechargeable batteries for free at special collection points.
- In Germany, dispose of old non-rechargeable and rechargeable batteries for free using the GRS system (www.grs-batterien.de/start.html).
- Dispose of the packaging in accordance with local government regulations.
- Dispose of the consumables in accordance with local government regulations.

13 Specifications

13.1 Dimensions and Weight

	Unit	Value
Dimensions (L × W × H)	mm	233 × 172 × 230
Weight		
Model 16713----PS	kg	2.4
Model 16713----BO	kg	2.6

13.2 Ambient Conditions

	Unit	Value
Setup location: usual laboratory rooms	m above sea level	< 3000
Ambient temperature		
Operation	°C	+5 to +40
Storage and transport	°C	+5 to +60
Maximum relative humidity: 80% for temperatures up to 31°C decreasing linearly to 50% relative humidity at 40°C		
Safety of electrical equipment as per DIN EN/IEC 61010-1: Safety requirements for electrical equipment for measurement, control and laboratory use – Part 1		
Electromagnetic compatibility as per DIN EN 61326-1: Electrical equipment for measurement, control and laboratory use – EMC requirements – Part 1		

	Unit	Value
Interference resistance: Suitable for use in industrial areas		
Interference emission: Class		B
No exposure to heat from heating or sunlight		
Pollution degree according to IEC 61010-1		2

13.3 Power Supply

13.3.1 AC Adapter

	Unit	Value
Type: Sartorius AC adapter, model 1000022148		
Input voltage	V_{AC}	100–240 (± 10 %)
Frequency	Hz	47–63
Current consumption, max.	A	0.8
Output voltage	V_{DC}	15 (± 5 %)
Output current, max.	A	2
Overvoltage category according to IEC 61010-1		II
Short circuit protection: Electronic		
Protection class according to EN/IEC 60950-1		I
Power cord		
Power cord according to IEC 60320-1/C14: Country-specific, 3-pin, two-sided plug		
Socket according to IEC 60320-1/C14: 3-pin		
Other data: See label on AC adapter		

13.3.2 Device without Built-in Battery (Model 16713----PS)

	Unit	Value
Power supply: Only using Sartorius AC adapter 1000022148		
Supply voltage	V_{DC}	15
Voltage supply tolerances	%	–10 – +20
Input current, max.	A	0.7

13.3.3 Device with Built-in Battery (Model 16713----BO)

	Unit	Value
Power supply: Only using Sartorius AC adapter 1000022148		
Supply voltage	V_{DC}	15
Voltage supply tolerances	%	–10 – +20
Input current, max.	A	1.3
Rechargeable battery		
Voltage	V_{DC}	12–16.4
Charge duration for fully discharged battery	h	7

14 Accessories and Consumables

14.1 Accessories

This table contains an excerpt of accessories that can be ordered. For information on other products, contact Sartorius.

Product	Quantity	Order number
Foot switch	1	1ZE---0028
Forceps	1	16625

14.2 Consumables

This table contains an excerpt of the consumables that can be ordered. More information regarding the membrane filters from the "Microsart e.motion membrane filter" product family can be found on our website (www.sartorius.com).

Product	Quantity	Order number
Cellulose nitrate membrane filter, white with black grid, 47 mm, 0.45 µm high flow	300	114H6Z-47----SCM
Cellulose nitrate membrane filter, black with white grid, 47 mm, 0.45 µm high flow	300	130H6Z-47----SCM
Cellulose nitrate membrane filter, green with dark green grid, 47 mm, 0.45 µm	300	13806Z-47----SCM

15 Sartorius Service

Sartorius Service is at your disposal for queries regarding the device. For information about the service addresses, services provided or to contact a local representative, please visit the Sartorius website (www.sartorius.com).

16 Conformity

16.1 EU Declaration of Conformity

The attached Declaration of Conformity hereby confirms compliance of the device with the directives cited.

Original

sartorius

CE

EG-/EU-Konformitätserklärung
EC / EU Declaration of Conformity

Hersteller
Manufacturer

Sartorius Lab Instruments GmbH & Co. KG
37070 Goettingen, Germany

erklärt in alleiniger Verantwortung, dass das Betriebsmittel
declares under sole responsibility that the equipment

Geräteart
Device type

Filter-Dispenser
Filter dispenser

Modell
Model

16713----PS, 16713----BO

in der von uns in Verkehr gebrachten Ausführung allen einschlägigen Bestimmungen der folgenden Europäischen Richtlinien - einschließlich deren zum Zeitpunkt der Erklärung geltenden Änderungen - entspricht und die anwendbaren Anforderungen folgender harmonisierter Europäischer Normen erfüllt:
in the form as delivered fulfils all the relevant provisions of the following European Directives – including any amendments valid at the time this declaration was signed - and meets the applicable requirements of the harmonized European Standards listed below:

2014/30/EU — Elektromagnetische Verträglichkeit / *Electromagnetic compatibility*
EN 61326-1:2013

2011/65/EU — Beschränkung der Verwendung bestimmter gefährlicher Stoffe in Elektro- und Elektronikgeräten (RoHS)
Restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)
EN 50581:2012

2006/42/EG
2006/42/EC — Maschinen
Machines
EN ISO 12100:2010, EN 61010-1:2010

Die Person, die bevollmächtigt ist, die technischen Unterlagen zusammenzustellen:
The person authorised to compile the technical file:
Sartorius Lab Instruments GmbH & Co. KG
International Certification Management
37070 Goettingen, Germany

Jahreszahl der CE-Kennzeichenvergabe / *Year of the CE mark assignment:* **16**

Sartorius Lab Instruments GmbH & Co. KG
Goettingen, 2016-11-20

i.V.
Dr. Reinhard Baumfalk
Vice President R&D

i.V.
Dr. Dieter Klausgrete
Head of International Certification Management

Diese Erklärung bescheinigt die Übereinstimmung mit den genannten EG- und EU-Richtlinien, ist jedoch keine Zusicherung von Eigenschaften. Bei einer mit uns nicht abgestimmten Änderung des Produktes verliert diese Erklärung ihre Gültigkeit. Die Sicherheitshinweise der zugehörigen Produktdokumentation sind zu beachten.
This declaration certifies conformity with the above mentioned EC and EU Directives, but does not guarantee product attributes. Unauthorised product modifications make this declaration invalid. The safety information in the associated product documentation must be observed.

Doc: 2059735-00 SLI16CE016-00.de,en 1 / 1 PMF: 2059734 OP-113_fo1_2015.10.12

16.2 CSA Certificate of Compliance

Certificate of Compliance

Certificate:	70108651	**Master Contract:**	167555 (056628_0_000)
Project:	70138284	**Date Issued:**	2017-05-18

Issued to: **Sartorius Lab Instruments GmbH & Co. KG**
Otto-Brenner-Strasse 20
Goettingen, 37079
GERMANY

The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US or with adjacent indicator 'US' for US only or without either indicator for Canada only.

Issued by: Jean-Philippe Laplante
Jean-Philippe Laplante

PRODUCTS
CLASS - C872106 - LABORATORY EQUIPMENT-Electrical
CLASS - C872186 - ELECTRICAL EQUIPMENT FOR LABORATORY USE-Certified to US Standards

Filter Dispenser Models

16713----PS Rated 15 Vdc, 0.7 A (max.) and 16713----BO Rated 15 Vdc. 1.3 A (max.)

Notes:

1. The above model is Equipment Class III (powered by external power supply with detachable power supply cord), Pollution Degree 2 Overvoltage category II
2. Mode of operation: Continuous
3. Environmental Conditions: Normal: 5 to 40 C, 3000 m max, 80% to temperatures up to 31 ºC decreasing linearly to 50% rH at 40 ºC;

DQD 507 Rev. 2016-02-18 Page 1

Certificate: 70108651 **Master Contract:** 167555
Project: 70138284 **Date Issued:** 2017-05-18

APPLICABLE REQUIREMENTS

CSA Standards:

CAN/CSA-C22.2 No. 61010-1-12 - Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use, Part 1: General Requirements

UL Standards:

UL Std. No. 61010-1 (3rd Edition) - Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use - Part 1: General Requirements

Supplement to Certificate of Compliance

Certificate: 70108651 **Master Contract:** 167555 (056628_0_000)

The products listed, including the latest revision described below, are eligible to be marked in accordance with the referenced Certificate.

Product Certification History

Project	Date	Description
70138284	2017-05-18	CSA c/us report update for alternate construction (enclosure frame material) on a Filter Dispenser unit, models: 6713----PS & 16713----BO
70108651	2016-12-08	CSA c/us certification of a filter dispenser models 16713 PS and 16713 BO based on acceptance of CB report.

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The information and figures contained in these instructions correspond to the version date specified below.
Sartorius reserves the right to make changes to the technology, features, specifications and design of the equipment without notice.
Masculine or feminine forms are used to facilitate legibility in these instructions and always simultaneously denote the other gender as well.

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Last updated:
06 | 2017

Printed in the EU on paper bleached without chlorine. | JW
Publication No.: W166001-e170603