

SICCO Mini-Desiccators Premium, Cat.-No.: V 1940-06, V 1942-06, V 1947-06, V 1948-06, V 1949-06, V 1950-01, V 1950-02 and V 1950-03.

OPERATING INSTRUCTIONS

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SICCO Mini-Desiccator Premium  
1 compartment  
Cat.-No.: V 1950-01



SICCO Mini-Desiccator Premium  
2 compartments  
Cat.-No.: V 1950-02



SICCO Mini-Desiccator Premium  
3 compartments  
Cat.-No.: V 1950-03



Mini-Desiccator  
Protect Premium  
Cat.-No.: V 1942-06



Mini-Desiccator  
Black Premium  
Cat.-No.: V 1940-06



SICCO Mini-Desiccator  
For Gas Filling Premium  
Cat.-No.: V 1949-06



SICCO Mini-Desiccator  
Secure Box Premium  
Cat.-No.: V 1947-06



SICCO Mini-Desiccator  
Antistatic Premium  
Cat.-No.: V 1943-06



SICCO Mini-Desiccator  
Mobile Premium  
Cat.-No.: V 1948-06



Please read the information listed below thoroughly. We urgently ask you to observe the instructions about security, use and maintenance.

SICCO Mini-Desiccators are made of high-quality plastic material. They are made for safe and secure storage of humidity-sensitive products as well as of optical and microelectronic parts in a dust-free atmosphere.

This happens by adding Silica gel which considerably reduces the air humidity by its absorbing effect.

#### 1. Supplied with

- 1 Mini-Desiccator Premium
- 1 Jar with Silica gel (23 g)
- 2 Jars with Silica gel (only Mini-Desiccator Premium with 2 compartments)
- 3 Jars of Silica gel (only Mini-Desiccator Premium with 3 compartments)
- 2 Connections for gas filling with quick couplings and hose (5 m) (Mini Desiccator Premium for Gas Filling only)
- 2 Keys (Mini Desiccator Secure Box Premium only)
- 1 Operating Instructions

#### 2. Security instructions

- » Do not take a damaged desiccator into operation.
- » Do not store any solvents or acids in the desiccator.
- » Do not put any explosive or inflammable products into the desiccator.
- » SICCO Desiccators are not suitable for overpressure or vacuum.
- » Provide a safe stand for the desiccator.
- » Place the desiccator in a reachable working height.
- » The ambient temperature range of -35 °C to + 70 °C shall not be exceeded.
- » Do not expose the desiccator to direct sunlight.
- » The jar in which the Silica gel is delivered cannot be used to regenerate the gel.

Further security advice for SICCO Mini Desiccator Premium for Gas Filling:

- » SICCO Mini Desiccators Premium for Gas Filling shall be taken into operation only in rooms with sufficient ventilation.
- » For gas filling a connection has to be made to both connectors.
- » Connect the outlet tube at first, then the inlet tube. Disconnection has to be made in reverse order.
- » Avoid unanticipated reactions which might be caused by gas residues upon opening the door when storing further components in the desiccator.
- » Do not put the filling tubes under tensile or compressive stress.

Further security advice for SICCO Mini Desiccator Antistatic Premium:

- » Connect your ground cable to the bore on the backside of the desiccator.
- » SICCO Mini Desiccators Antistatic Premium can discharge electrostatic charges by means of grounding cable. The surface resistance is  $10^5$  Ohm

### 3. Taking into operation

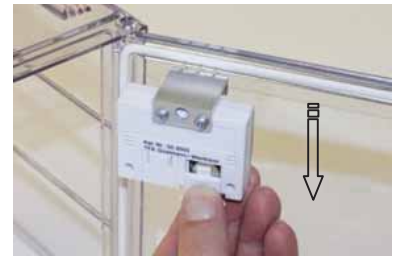
The desiccator can be used immediately after having unpacked it.

- » Opening of the hinge door: Push the locking bar (1) into the handle (2).
- » Closing: Push the door onto the frame. You will hear when the locking bar (1) snaps into the frame (3).

Attention: Risk of crushing to fingers between locking bar and handle!



- » Open the battery case on the back of the hygrometer by pushing the cover downwards.
- » Remove the battery safety strip and reinsert the battery. Close the battery case.
- » Please note: The hygrometer of Mini Desiccators Black Premium is not fixed on the door.



- » Open the jar with silica gel and place it inside the desiccator.

Please note: Provided the actual relative humidity in your desiccator is between 25 % and 75 % and temperature is between 0 °C and +50°C, the value displayed on the hygrometer will have a deviation of  $\pm 5$  % relative humidity.

If the actual relative humidity is less than 25 % or more than 75 %, the displayed value can deviate more than  $\pm 5$  % from the actual value. Also if the temperature is below 0 °C or higher than +50 °C, a derivation of the displayed value is possible.

- » If necessary, place the shelves inside the desiccator by pushing them diagonally through the door. Then put them on the rails on the left and on the right side.



The following functions are only available with SICCO Mini Desiccators Premium for Gas Filling Cat.-No. V 1949-06:

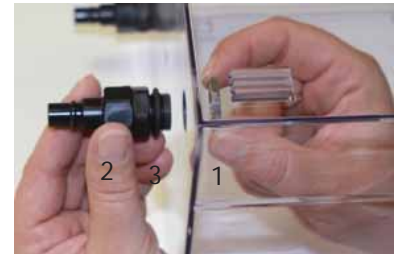
#### Swapping with Gas

The substances and components which are stored in the desiccator can be swapped with gas. The corresponding bores to lead in the gas are located on the side walls and factory-made. For technical reasons (packing and transport), the tubing and the connecting pieces are enclosed in delivery but not yet mounted. The assembly is quite easy:

- » Remove the nut (1) from the connecting piece (2) by turning it counter clockwise. The o-ring (3) remains on the thread.



- » Two bores are located on the back side. Put the thread of the connecting piece (2) with the o-ring from the outside through the bore. Fix the connecting piece from the inside by screwing manually the nut (1) on it.



Do not use any tooling for the assembly!

- » Cut the inlet and outlet tubing with a knife to the requested length. 5 m are included in delivery.



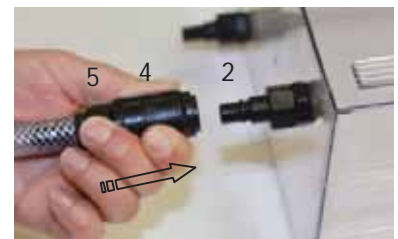
- » Press the tubing on the coupling.

Tip: Wet the hose connector with some water.



- » Pull the slide closure (4) of the coupling (5) in the direction of the tubing and put it on the already mounted connecting piece (2).

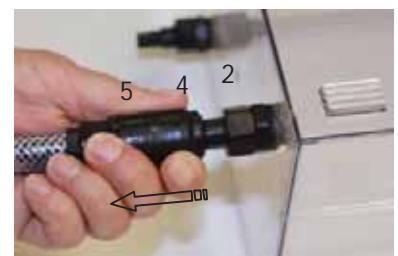
Tip: Put some drops of silicone oil onto the sealing surface.



- » For disconnection just hold the coupling (5) and move the slide closure (4) in direction of the coupling.

Attention:

The passage on the connecting piece (2) will only be opened after the connection with the coupling (5) has been closed tight. During disconnection, both passages are blocked by an integrated non-return valve.

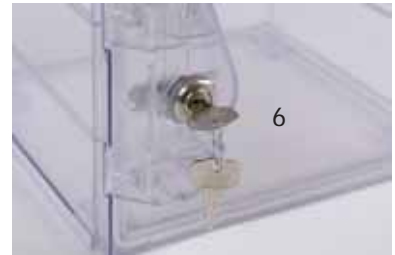


The following functions are only available with SICCO Mini Desiccators Secure Box Premium  
Cat.-No. V 1947-06:

- » Key (6) in vertical position: The door can be opened.  
Please note that the key (6) cannot be removed in this position.



- » To close the lock, turn the key (6) a quarter turn to the left.  
The key (6) can now be removed from the lock.



The following functions are only available with SICCO Mini Desiccators Antistatic Premium  
Cat.-No. V 1943-06:

- » Connect your grounding cable to the back of the desiccator. We recommend using a screw with a diameter of 4 mm with nut and plate.



#### 4. Mode of function

- » The regulation of the air humidity inside the desiccator is made by adding different quantities of silica gel.  
The silica gel contains a colour indicator. Dry silica gel is orange-coloured, being saturated the silica gel changes its colour to dark brown or black. For regeneration, the silica gel has to be put into an open, heat-resistant vessel. On this vessel, the silica gel can be regenerated in an oven at approx. 90 to 110 °C for around 60 minutes. Do not regenerate the silica gel in the supplied jar!
- » To prevent a rise of air humidity when putting in or taking out parts, the door should be opened only for a very short period of time.

Functions of the digital thermometer/hygrometer:

- Measuring range::
- » Temperature -10 °C to +60 °C
  - » Air humidity 10 % to 99 % relative humidity
- Max. error in measurement:
- » ± 1°C between –10 °C and + 50 °C
  - » ± 5 % relative humidity at 25 % to 75 % relative humidity and 0 °C to +50 °C
- Battery:
- » button cell LR44 or AG13.

Functionality of the keys:

- Indication of maximum / minimum values:
- » By pressing the MAX/MIN-key, the maximum value since the last reset will be displayed.
  - » By pressing the MAX/MIN-key again, the minimum value since the last reset will be displayed.
  - » The current values will be displayed after pressing MAX/MIN a third time.
  - » Reset of the MAX/MIN-memory:  
Press CLEAR and the MAX/MIN-memory will be deleted. The current values will be stored instead.
  - » Battery sign in the display  
If the battery is low, a battery flag is shown on the left bottom of the display.  
Exchange the battery to ensure best possible operation of the device.

### 5. Service / Maintenance

- » Only use soft clothes and no detergents which contain solvents or which scrub.
- » Only use the desiccator in clean and dust-free conditions. Never expose it to direct insulation or other sources of heat.

### 6. Disturbances / Repairs

The following information shall help you to recognize and, if possible, to eliminate possible reasons for disturbances by yourself. If you are not able to handle the disturbance, please give us a call. We will then try to help you this way. If then a solution to your problem cannot be found, we will ask you to return the cleaned desiccator in the original packing to us. Then we will check whether a cost-effective repair is possible.

Objection	Reason and help
<ul style="list-style-type: none"> <li>» Humidity inside the desiccator does not fall.</li> </ul>	<ul style="list-style-type: none"> <li>» The door is not closed tightly. Close the door.</li> <li>» The silica gel is saturated. Regenerate the silica gel as described under point 2.4.</li> <li>» You possibly have not added enough silica gel. Add further silica gel.</li> <li>» Air circulation is constrained by mounted shelves. Place the desiccant right next to your components.</li> </ul>

### 7. Waste disposal

The desiccators as well as their packing are made of recyclable materials. Please take further information about the materials used from the following specifications.

## 8. Specifications

Cat.-No.	Temperature resistance	Material	Usable interior space B x H x T in mm	Usable volume litres, approx.	Weight in kg approx.	Outer dimensions B x H x T in mm	
V 1940-06	- 35 °C bis + 70 °C	Poly- carbonate	212 x 162 x 180 per compartment	6,2 per compartment	0,9	221 x 183 x 214	
V 1942-06					0,9	221 x 183 x 214	
V 1947-06					1,0	221 x 183 x 214 additional height for handle: 35	
V 1948-06					0,9	221 x 183 x 214 additionally 110 on the backside for coupling	
V 1949-06					0,9	221 x 183 x 214	
V 1950-01					0,9	221 x 183 x 214	
V 1950-02					1,8	221 x 362 x 214	
V 1950-03					2,7	221 x 540 x 214	
V 1943-06					Con- ductive Poly- carbonate	0,9	221 x 183 x 214

- » The maximum all-over load is 3 kg for all Mini Desiccators Premium.
- » A hose with a length of 5 meter is included in the delivery of SICCO Mini Desiccators Premium for Gas Filling. The passage of the quick couplings has a bore with 6 mm.
- » SICCO Mini Desiccator Antistatic Premium is conductive and its surface has a resistance of  $10^5$  Ohm

## 9. Spare parts / accessories

- » see page 21