

GKE Steri-Record® Electronic Dry Bath Incubator for biological indicators

Art.-No.*	Product Code	Description
Incubators with aluminium block for SCBIs		
610-119	I-37-AB-MBP	Incubation temperature: 37°C fixed
610-120	I-57-AB-MBP	Incubation temperature: 57°C fixed
610-121	I-V-AB-MBP	Variable temperature selection
610-122	I-V-T-AB-MBP	Variable temperature selection and programming of the incubation time
Incubators without aluminium block		
610-109	I-37	Incubation temperature: 37°C fixed
610-110	I-57	Incubation temperature: 57°C fixed
610-111	I-V	Variable temperature selection
610-112	I-V-T	Variable temperature selection and programming of the incubation time
Aluminium blocks		
610-113	I-AB-MPB	for GKE Steri-Record® Mini-Bio-Plus SCBI
610-114	I-AB-AMP	for GKE Steri-Record® Stearo-Ampoules
610-115	I-AB-CM	for GKE Steri-Record® growth media tubes

(*) To all article numbers a 3-digit alpha code is added. The additional letter code refers to the language and/or customized and plug version. It is only added on the outside label, the inside of the pack is identical to the article numbers on the above table.

Application

The electronic dry bath incubator is used to incubate GKE Steri-Record® biological indicators. Self-contained biological indicators (SCBI) are used to test steam, ethylene oxide, formaldehyde and hydrogen peroxide/plasma sterilization processes. GKE Stearo-Ampoules are used to test liquid sterilization procedures. Growth media tubes are used to incubate spore strips and other carriers. After the incubation period the colour of the pH-indicator shows the result of the medium. An external microbiological laboratory is not needed. Therefore, the results are available much faster.

Product Description

The incubator is available in different versions for different temperatures. The incubator is either available with SCBI aluminium block or without any aluminium block. Different aluminium blocks are available separately.

The incubator is running at 12 V DC and can be used in all laboratories. A separate power supply with variable voltage input 100 - 240 V AC is enclosed with each incubator. The incubation temperature is visible in the LCD-display. After the time is elapsed the incubator provides an acoustic and visual signal.

The countdown is only running, when temperature is equivalent to the setting. So even during electrical power outages, a correct incubation time is warranted. Temperature and remaining incubation time is visible on the LCD-display (only for art.-no. 610-122/-112).

The aluminium block is covered with a transparent lid with the advantage that the colour change of biological indicators can be observed without opening the cover.

Before the SCBIs are incubated they need to be activated by crushing the glass ampoule inside the SCBI. The crusher is integrated in the aluminium block of the incubator.

Specifications

Voltage of incubator	12 V DC
Max. heating power	35 W
Separate power supply	12 V DC/100 - 240 V AC, 50 - 60 Hz
Temperature range	+ 5 - + 80 °C
Timing range	0 ~ 99 h (nur Art.-Nr. 610-122/-112)
Temperature accuracy	± 1 °C in aluminum block (AB) ± 2 °C in growth medium in AB
Display accuracy	0.1°C
Heating time:	
20°C to 37°C	≤ 8 min
20°C to 57°C	≤ 10 min
20°C to 80°C	≤ 12 min
Ambient temperature	5°C ~ 35 °C
Dimensions (WxHxD)	110 x 80 x 150 mm
Weight including aluminium block	870 g
Power cord with the following plug versions:	Australia = A Europe = E Great Britain = G USA = U

Packing list with components in a cardboard box

1. Incubator 12 V
2. Transparent lid
3. Power supply 100 - 240 V - 12 V
4. Power cord with ordered plug version (see table specification)
5. Aluminium block fixed with 2 screws
6. Allen wrench and screws

Handling Information

1. Place the incubator in a room with ambient temperature between 5 and 35 °C. Connect the power supply to electricity and the 12 V plug into the incubator.
2. Switch on the incubator on the back side.

- Select the right incubator temperature according to the requirements of the biological indicator at 37 or 57 °C.

3.1 For incubators: 610-109 | 610-119 | 610-110 | 610-120

For incubator with fixed temperature (see label on the incubator), make sure that the temperature matches with the required incubation temperature of the BI (see directions for use BI). As the preset temperature of 37 °C or 57 °C has been reached, "OK" appears in the display. The incubator is now ready for use. The display buttons have no function. Continue with 4.

3.2 For incubators: 610-111 | 610-121 | 610-112 | 610-122

If you have a temperature programmable incubator, art.-no. 610-121/-111, or a temperature and time programmable incubator, art.-no. 610-122/-112, press "Return" to change the temperature with the arrow keys "▲" and "▼". The selected temperature is displayed in format "37.0C". By pressing "Return" again the different digits of the temperature can be selected and changed. After 5 seconds without action the selected temperature automatically is accepted by the incubator. The incubator requires some time until the new set temperature is achieved by heating up or cooling down the aluminium block.

3.3 For incubators: 610-112 | 610-122

If you have a temperature and time programmable incubator, art.-no. 610-122/-112, press "Return" 4 times to skip the temperature digits and reach the time digits with the cursor. The time is displayed in format 00:00HR on the very right side of the LCD display. By pressing "Return" again the time digits are accessible. To change them use the "▲" and "▼" arrow keys.

The incubator allows you to store 2 time and temperature pre-settings as programs which can be selected by pressing the "Prog." button. The program chosen is displayed on the very left side of the display "P1, P2". For incubation choose your program and wait until the correct temperature is reached on the display and the time digits on the right side change from "XX" to "OK". Then place your samples and start the countdown by pressing the "start, stop" button. The colon of the time digits blinks to indicate the running countdown and the remaining time is displayed. The incubator will beep after the time is elapsed and show the sign "✓✓" on the display. The heating afterwards is not stopped. If there is an electrical power failure, the countdown continues automatically, when the pre-set temperature is reached again. During a program is running, no changes in programming are possible. To abort a running program, hold the "start, stop" button for 3 seconds.

- Check the temperature in the LCD display. The actual temperature is displayed. After 5 - 15 minutes when the set temperature is achieved, a beep sounds and the display shows OK on the right side.
- For activation of SCBI use the crusher in the middle of the aluminium block. Check that the liquid moistens the biological indicator carrier.
- Insert the BI or growth medium into the aluminium block and close the transparent lid on top.
- Record the starting date and time of the incubation and, if applicable, program the necessary incubation time.
- Twice a day observe if colour change of the liquid occurs.
- If colour change occurred, remove the biological indicator and record the result that the process is faulty.
- If no colour change occurred after the time required, as stated in the direction for use BI the sterilization process was successful.

Safety precautions, maintenance and cleaning

- The warranty is 6 months.
- There is no maintenance of the incubator necessary. Cleaning should be done when powered off with a 70 % alcohol-soaked cloth.
- Never pour water or other liquids over the incubator, which damages electrical parts. Should this occur by mistake, unplug the power cable immediately and remove the liquid. Remove 6 screws on the bottom, dry the incubator and exchange the damaged parts.
- The lid contains 5 holes to prevent condensation inside the lid. Don't close the holes, otherwise condensate could flow in the electronic parts and damage them.
- The incubator is not explosion-proof. Do not switch on the incubator in rooms with inflammable vapour.
- The displayed temperature of the incubator is calibrated and cannot be changed. Therefore, never try to change the temperature on the electrical parts inside of the incubator. There is the risk of an electrical shock and the warranty is lost. Only change the temperature on the buttons, if you have a version with selectable temperature.
- Note: The incubator is calibrated to the liquid inside of the BI or SCBI. To achieve the selected incubation temperature, the aluminium block is calibrated 1°C above the selected temperature.
- Incubators with selectable temperature can be adjusted by the operator, if another temperature is required. This can be carried out by using a calibrated thermometer. Please note the temperature of +1 °C. Both SCBI versions can be incubated with a temperature difference of ±2.5 °C without problems. Therefore, a re-calibration is unnecessary.
- Repairs should only be carried out by qualified personnel from GKE distributors. Only use original GKE spare parts.
- When opening the incubator, warranty is lost, even when the incubator has to be opened due to liquid spoilage (see 3.).

Troubleshooting

Error	Cause	Solution
No display	No main power connection	Plugs in both power supply cables. Check main switch on the backside
	Power supply failure	Check 12 V output of power supply, eventually exchange
"OPEN" in the display with noise alarm	Broken sensor or loose contact of the heating module	Contact GKE or GKE representative
"SHO" in the display with noise alarm	The sensor is short cut	
No heating of the block	Heater failure	
Press invalid	Keyboard failure	

For further technical details please contact your local dealer or the GKE application laboratory. We will assist you with any technical questions. Also visit our website www.gke.eu for more information.

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