

Gebrauchsanleitung

Laborkocher

mit Glaskeramik - Heizfläche

Operating Instructions

Laboratory hot plates

with glass - ceramic material

Mode d'emploi

Plaques chauffantes

avec surface de chauffe

en vitrocéramique

Manual de instrucciones

Placas calefactoras

vitrocerámicas

Typ / type / type / tipo

SLK 1

SLK 2

SLK 2-T

SLK 6



Laboratory hot plate SLK 2-T



SCHOTT
Instruments

Gebrauchsanleitung Seite 1 10

Wichtige Hinweise: Die Gebrauchsanleitung vor der ersten Inbetriebnahme der Laborkocher bitte sorgfältig lesen und beachten. Aus Sicherheitsgründen darf der Laborkocher mit Glaskeramik - Heizfläche ausschließlich nur für die in dieser Gebrauchsanleitung beschriebenen Zwecke eingesetzt werden.

Alle in dieser Gebrauchsanleitung enthaltenen Angaben sind zum Zeitpunkt der Drucklegung gültige Daten. Es können jedoch von SCHOTT sowohl aus technischen und kaufmännischen Gründen, als auch aus der Notwendigkeit heraus, gesetzliche Bestimmungen der verschiedenen Länder zu berücksichtigen, Ergänzungen am Laborkocher mit Glaskeramik - Heizfläche vorgenommen werden, ohne daß die beschriebenen Eigenschaften beeinflußt werden.

Operating Instructions Page 11 20

Important notes: Before initial operation of the Laboratory hot plates please read and observe carefully the operating instructions. For safety reasons the Laboratory hot plate with glass - ceramic material may only be used for the purposes described in these present operating instructions.

All specifications in this instruction manual are guidance values which are valid at the time of printing. However, for technical or commercial reasons or in the necessity to comply with the statutory stipulations of various countries, SCHOTT may perform additions to the Laboratory hot plate with glass-ceramic material without changing the described properties.

Mode d'emploi Page 21 30

Instructions importantes: Prière de lire et d'observer attentivement le mode d'emploi avant la première mise en marche des Plaques chauffantes. Pour des raisons de sécurité, la Plaque chauffante avec surface de chauffe en vitrocéramique pourra être utilisé exclusivement pour les usages décrits dans ce présent mode d'emploi.

Toutes les indications comprises dans ce mode d'emploi sont données à titre indicatif au moment de l'impression. Pour des raisons techniques et/ou commerciales ainsi qu'en raison des dispositions légales existantes dans les différents pays, SCHOTT se réserve le droit d'effectuer des suppléments concernant la Plaque chauffante avec surface de chauffe en vitrocéramique qui n'influencent pas les caractéristiques décrits.

Manual de instrucciones Página 31 40

Instrucciones importantes: Primeramente, lean y observen atentamente el manual de instrucciones antes de la primera puesta en marcha de la Placa calefactora vitrocerámica. Por razones de seguridad, la Placa calefactora vitrocerámica sólo debe ser empleada para los objetivos descritos en este manual de instrucciones.

Todos los datos contenidos en este manual de instrucciones son datos orientativos que están en vigor en el momento de la impresión. Por motivos técnicos y / o comerciales, así como por la necesidad de respetar normas legales existentes en los diferentes países, SCHOTT puede efectuar modificaciones concernientes a la Placa calefactora vitrocerámica sin cambiar las características descritas.

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Reading aids used in this manual

The present manual is designed to enable you using the Laboratory hot plates safely in accordance with their designated use. You should always observe all safety and warning instructions to ensure best possible safety! The pictogram used has the following meaning:



Warning referring to a common danger for people or materials.



Failure to follow these instructions may result in physical or material damage.

1 Properties

General

The main application of the Laboratory hot plates with ceramics material consists in heating up aqueous solutions without inflammable portions in glass vessels. Considering that the interior of the Laboratory hot plates and the glass-ceramics heating zones heat up, any other application have to be checked carefully to know whether they might result in hazardous situations.

The SCHOTT glass-ceramics material has special thermal properties. The glass-ceramics heating zone is almost free of thermal expansion and has a resistance to thermal changes from $-200\text{ }^{\circ}\text{C}$ to $+700\text{ }^{\circ}\text{C}$. A hot glass-ceramics heating zone may be quenched with ice-cold water without suffering any damage.

In addition to the thermal properties the glass-ceramics material has the chemical stability and surface quality of glass. Owing to the high infrared permeability the heat energy is transmitted quickly and with little loss only. The residual-heat indicator of the Laboratory hot plates warns of hazards of burning. The residual heat can be used in an energy-saving manner to preheat another vessel.

The glass-ceramics surfaces remain plane, are pore-free, and do not have bordering frames or soiling angles. SCHOTT Laboratory hot plates are therefore easy to clean.

The back panel of the Laboratory hot plates contains a bore hole with an M8 thread for accommodating a $\varnothing 10\text{ mm}$ tripod rod (not included in the scope of delivery, item no. TZ 1510).

The functions of the Laboratory hot plates are controlled via sensor keys.

The application limits are described in the "Warning and safety instructions" chapter.

Physical properties of the glass ceramics

Coefficient of thermal expansion α :	$+20 \dots +300\text{ }^{\circ}\text{C}$: $-0.25 \cdot 10^{-6}\text{ K}^{-1}$ $+20 \dots +700\text{ }^{\circ}\text{C}$: $+0.10 \cdot 10^{-6}\text{ K}^{-1}$
Specific weight ρ :	2.58 g / cm^3
Module of elasticity E:	92 kN / mm^2
Knoop hardness under 1N load:	$> 575\text{ HK}$ (test according to ISO 9385)
Max. temperature stability: T_{max} permanent:	$700\text{ }^{\circ}\text{C}$; at short term (1 min max.): $\leq 850\text{ }^{\circ}\text{C}$
Static loading capacity:	0.1 kp / cm^2 (approx. 1 N / cm^2)

Chemical properties of the glass-ceramics material

Hydrolytic resistance	DIN ISO 719:	Hydrolytic class 1
Alkali-fastness	DIN 52 322 / ISO 685:	class 2
Acid-fastness	DIN 12 116:	class 3

The **SLK 1** and **SLK 2** Laboratory hot plates including their radiant elements are suitable for quick heating-up of liquids. The highest heating stage, i.e. **<< 9 >>** corresponds to a heating output of 1.2 kW or 1.8 kW, respectively.

On the right heating/stirrer zone of the **SLK 2-T** Laboratory hot plate, you can furthermore keep the temperature of the liquid constant. A temperature sensor, Pt 1000 Resistance Thermometer, immersed into the liquid and connected at the back panel of the Laboratory hot plate records the temperature. Using the corresponding sensor keys you can switch the temperature control on and select a command temperature between the ambient temperature and $100\text{ }^{\circ}\text{C}$ in increments of 1 K. The command temperature is indicated above the sensor keys. The temperature may vary in the range from $\pm 2\text{ }^{\circ}\text{C}$ to $\pm 5\text{ }^{\circ}\text{C}$, depending on the vessel, the volume of the liquid, and the ambient temperature.

The combination of the **SLK 1** Laboratory hot plate with radiant element and a Laboratory hot plate with foil heater with additional stirring function results in the **SLK 6** Laboratory hot plate. Owing to its properties, two heating zones of which one with an additional stirring function, you can heat up a medium quickly and subsequently stir it under continuing heating. You just have to change the heating zone.

The right heating/stirrer zone offers you, as well as the Laboratory hot plate **SLK 2-T**, the possibility of the temperature control.

An over-temperature guard protects the Laboratory hot plates from overheating.

Technical data of the SLK 1 to SLK 6 Laboratory hot plates

State January 15th, 2001

CE sign:	CE	Electromagnetic compatibility according to the Council Directive 89/336/EMC; generic emission according to standard EN 50 011 generic immunity according to EN 50 082, part 1 low-voltage directive according to the Council Directive 73/23/EMC, last modified by the Council Directive 93/68/EMC
Country of origin:		made in Germany
Display:		7-segments light-emitting diodes display (LED), height 13 mm control-temperature display with SLK 6 + SLK 2-T Laboratory hot plates: 3-digit
Stirring using: magnetic stirrer		Stirring speed adjustable in 9 stages from approx. 100 to > 1 000 U · min ⁻¹
Temperature control:		from room temperature to 199 °C in increments of 1 - K , temperature stability: ± 2 K ... ± 5 K depending on vessel, volume of the liquid and ambient temperature
Connections:		
Temperature sensor:		2 x 4 mm sockets for Pt 1000 Resistance Thermometer
Mains:		integrated Europe-type plug with fuse: Cold-device plug DIN VDE 0625 EN 60 320 , IEC 320 / C 14 / C 18 (DIN 49 457 B9),
Safety standards:		The Laboratory hot plates correspond to the following safety standards: EN 60 335, Part 1 and EN 60 335, part 6; and EN Device of Protective Class I, manufactured and tested according to protective measures for electric heating apparatus; not suitable for environment with an explosion hazard
Power supply:		Mains: 230 V~, 50 / 60 Hz or 115 V~, 50 / 60 Hz (to be specified on the order)
Casing material:		Composite HUP EJ 27 075 (SMC on unsaturated polyester-resin basis)
Climate:		
Ambient temperature:		+ 10 ... + 40 °C for operation and storage
Relative humidity:		according to EN 61 010, Part 1: maximal relative humidity 80 % for temperatures up to 31 °C, linearly decreasing to 50 % relative humidity at a temperature of 40 °C

Overview of the four SCHOTT Laboratory hot plates:

Laboratory hot plate types	SLK 1 / SLK 2	SLK 2-T	SLK 6
Dimensions approx. w x h x d [mm]	295 x 110 x 390	295 x 110 x 390	445 x 110 x 390
Glass-ceramics approx. w x d [mm]	280 x 280	280 x 280	430 x 280
Glass-ceramics floor space approx. [mm]	Ø 165 with SLK 1 Ø 200 with SLK 2	Ø 200	Ø 165 and □ 145 x 145
Radiator type	infrared	infrared	infrared + foils
Heating output	1 200 with SLK 1 1 800 with SLK 2	1800	1 200 / 500
Stirring function	no	no	yes
Temperature control	no	yes	yes
Weight, approx. [kg]	3.6	4.0	6.2

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55122 Mainz
Deutschland, Germany, Allemagne

KONFORMITÄTSERKLÄRUNG DECLARATION OF CONFORMITY DÉCLARATION DE CONFORMITÉ

Wir erklären in alleiniger Verantwortung, dass die Produkte

We declare under our sole responsibility that the products

Nous déclarons sous notre seule responsabilité que les produits

**Laborkocher
mit
Glaskeramik -
Heizfläche**

**Laboratory hot plates
with
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material**

**Plaques chauffantes
avec
surface de chauffe
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**SLK 1
SLK 2
SLK 2-T
SLK 6**

**SLK 1
SLK 2
SLK 2-T
SLK 6**

**SLK 1
SLK 2
SLK 2-T
SLK 6**

auf die sich diese Erklärung bezieht, übereinstimmen mit dem normativen Dokument

to which this declaration relates is in conformity with the normative document

auquel se réfère cette déclaration est conforme au document normatif

Technische Daten

Laborkocher mit Glaskeramik - Heizfläche

15. Januar 2001

SCHOTT Instruments GmbH
Hattenbergstraße 10
55122 Mainz
Deutschland, Germany, Allemagne

2 Warning and safety instructions

For reasons of safety technology and functional integrity the Laboratory hot plates must only be opened by authorised staff; work on the electrical system, e.g., must only be performed by trained specialists. In the case of unauthorised intervention in the Laboratory hot plates and negligent or deliberate damage the warranty will lapse.

The Laboratory hot plates correspond to Protection Class 1. They were manufactured and tested according to DIN VDE 0700 Part 1/04.88 (HD 251 S3 and Supplement 1-3) and DIN VDE 0700 Part 6/11.89 (HD 275 S1, Supplement 1) in combination with the draft DIN VDE 0700 Part 6A8/04.89, Protective measures electric heating apparatus. They have left the plant in a perfect safety-technological condition. To preserve this condition and ensure safe operation, the user has to observe the information and warning notes contained in the present operating instructions.

Prior to switching on it has to be ensured that the voltage indicated on the specification plate of the Laboratory hot plates matches the mains voltage. The mains plug must only be plugged to a socket with protective earthing. The protective effect must not be neutralised by an extension line without protective earthing. Any interruption of the protective conductor within or outside the laboratory hot plates, or any loosening of the connector of the protective earthing may lead to the laboratory hot plates becoming hazardous. Any wilful interruption is not admitted.

Please make sure that the connecting lines do not come in contact with the hot heating zone or other hot objects. The Laboratory hot plates are to be kept away from inflammable substances, from which a min. distance of 0.5 m is to be observed.

The decoration marks the centre of the heating zone. However, the surface will also be heated up outside the decorated surface.

Please avoid hard objects falling on the glass-ceramics surface. Punctual impact may lead to the breaking of the glass-ceramics material.

If fissures, cracks, or breaks occur on the glass-ceramics surface, or if it has to be assumed that safe operation is no longer possible, the Laboratory hot plates have to be put out of operation (remove mains cable) and secured against inadvertent putting to operation.



CAUTION: Risk of deflagration, explosion and fire hazard when heating flammable liquids!
Always heat up liquids with a flash point above 580 °C!



Be aware of increased ease of ignition of hot liquids!

Always cover vessel to prevent hot liquids from getting into contact with the heating zone (e.g. by liquid splashing or boiling over, or through escaping gases)!

The Laboratory hot plates must be set up and connected in a way that ensures maximum safety for people and material handled.

If the Laboratory hot plates are used outside the laboratory, e.g. in the office, workshop, or household, the hazards which are typical for such rooms may emanate from the devices. The Laboratory hot plates must not be used to heat rooms (improper use!).



The surface of heating and boiling devices becomes hot during operation, so please be careful: **children**, especially **small children should always be kept out of reach** of such devices.



Food to be prepared using fat or oil (e.g. chips) should only be prepared under supervision! Preparing food in aluminium foils or plastic ware on the hot heating zones is not admissible! Such substances, and especially sugar in solid or liquid form (food containing sugar) will melt, get stuck, and may cause cracks or breaks in the glass-ceramics material when cooling down.

Repeated burning of soiling and boiling over is to be avoided. Calcereous deposits will harm the glass-ceramics material.

If the heating zones cannot be switched off any more owing to a defect of the sensor control, the Laboratory hot plates have to be separated from the mains immediately, and the mains cable has to be removed. The Laboratory hot plates must not be used to store objects on them, or as a working surface.

The Laboratory hot plates are designed for indoor use in dry environments. When selecting a location for your Laboratory hot plate, make sure to observe the following safety instructions:

The Laboratory hot plates must not be used to store objects on them, or as a working surface.

During operation the Laboratory hot plates **must not** be placed in furniture niches.

The Laboratory hot plates **must never** be immersed in water.

Explosion hazard! Never operate the Laboratory hot plates in hazardous location!

Danger of electric shock! Never operate the Laboratory hot plates in wet areas!

Fire hazard! For safety reasons place the Laboratory hot plates at least 50 cm from any inflammable material!

Risk of tripping! Never route connection cables in highly frequented areas!

Install the Laboratory hot plates on a flat, stable surface. The area under the Laboratory hot plates must be non-combustible! Do not put any support material under the Laboratory hot plates as it blocks the ventilator installed at the bottom of the device and may cause overheating!

Install the Laboratory hot plates on a flat, dry and non-slippery surface.



For safety reasons the Laboratory hot plates may only be used for the purposed described in the present operating instructions.

When using harmful or aggressive media:

Risk of poisoning or chemical burn! The device can be damaged when sucking in aggressive gases or vapour through the installed ventilator! The Laboratory hot plates must only be operated in the presence of an exhaust system!

Operation under a circulating air conduit may accelerate a device damage!

When using a compressed-air supply (order no. 28 541 6595), compressed air will stream through the Laboratory hot plates.

 **If the above information is not observed, the Laboratory hot plates may cause hazards such as electrical accidents to persons or fire hazards. In the case of unauthorised intervention in the Laboratory hot plates and negligent or deliberate damage the warranty will lapse.** 

Laboratory hot plate SLK 6



3 Set-up and putting into operation

When unpacking the device, please make sure to unpack the accessories as well.

Install the Laboratory hot plates on a flat, stable and non-slippery surface. The area under the Laboratory hot plates must be non-combustible! An allround space of at least 0,5 m must be observed.

Insert a 10 mm Ø tripod rod into the holder on the back (M8 female thread), then tighten the tripod rod manually. In the case of the SLK 2-T and the SLK 6 Laboratory hot plates connect the temperature sensor (Pt 1000 Resistance Thermometer) to the 4 mm sockets at the back panel of the device.

Prior to making the mains connection please check to ensure that the details on the specifications plate match the mains voltage. Plug the mains cable to the integrated 'Europe' socket at the back panel of the laboratory hot plates. After having connected the mains cable to mains, the central crossbar of the 7-segments display will light up to indicate that the laboratory hot plates are being supplied with mains voltage. Some types of the hot Laboratory indicate the actual software version.

General, proper use

The decoration marks the centre of the heating zone. However, the surface will also be heated up outside the decoration surface. You can interrupt the boiling process quickly by simply moving the boiling vessel out of the hot zone to colder neighbouring areas.

The Laboratory hot plates are equipped with a residual-heat indicator << **H** >> which lights up immediately after the hot Laboratory hot plates are switched off. Likewise, a residual heat will be indicated after approx. 10 seconds on the << **0** >> heating stage. As long as the << **H** >> symbol lights up, the switched off boiling zone of the Laboratory hot plates remains hot and can be used in an energy-saving manner. This residual-heat indicator warns of the hazard of getting burnt. Caution! If you pull the mains plug out of the mains socket, or if a power failure occurs, the residual-heat indicator is function-less. As soon as the heating process is resumed, the residual-heat indicator will be activated again. ⚠ **Caution:** Danger of burning! ⚠

The Laboratory hot plates should always be switched off after use.

After 3 hours of heating on heating stage << **9** >> without the sensor surface being touched, the safety circuit will switch back to heating stage << **8** >> to prevent the glass-ceramics material from overheating. The over-temperature protection protects the Laboratory hot plates from excess temperatures.

If several sensors keys are touched within 1 second, the Laboratory hot plate interpretes these commands as an operating error which is ignored (safety measure). There must be intervals of at least 2 seconds between touching the keys.

Please observe the cleaning and care instructions. In particular, you should keep the fields of the sensor keys clean, since their soiling may be misinterpreted as a finger contact.

If sugar, plastic, or aluminium foil get on the hot spots of the heating zones, **do not** switch the Laboratory hot plates off, but remove these matters immediately using a razor-blade scraper.

⚠ **Caution:** Danger of burning! ⚠

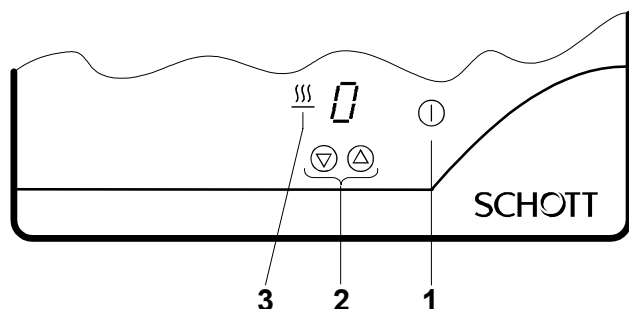
After using the razor-blade scraper, retract the blade properly. Danger of injury! The heating zones should be cleaned subsequently when cooled down.

First cleaning and heating-up

During first heating up of the Laboratory hot plates, or after a long period of non-use, a temporary smell will occur as a result of the combustion of small dust particles and the evaporation of water inside the insulation. To remove the accessible dust particles from the glass-ceramics material use a mild detergent to clean the glass-ceramics surface. Subsequently, use a soft cloth to rub the surface dry.

4 Working with the Laboratory hot plates

SLK 1 and SLK 2



1 = „On / Off“ sensor key

2 = Heating stage sensor key:
 setting a higher heating stage
 setting a lower heating stage
 using the **0 ... 9** display

3 = Heating symbol

Heating symbol:
right heating zone

4 = Stirring stages sensor key:
 setting a higher stirring stage
 setting a lower stirring stage
 using the **0 ... 9** display

5 = Stirrer symbol

6 = Heating symbol:
left heating zone

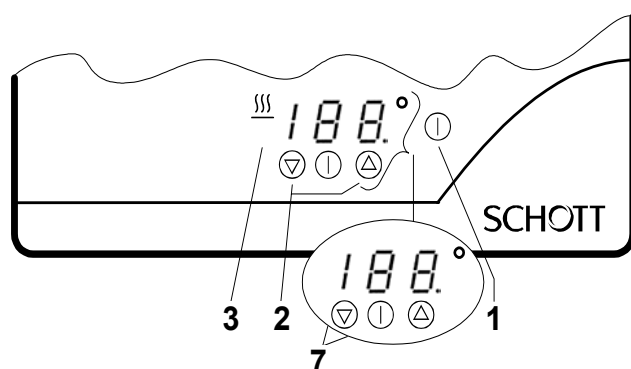
7 = „Off“ sensor key:
right heating zone

Command-value sensor key:
 higher temperature
 lower temperature

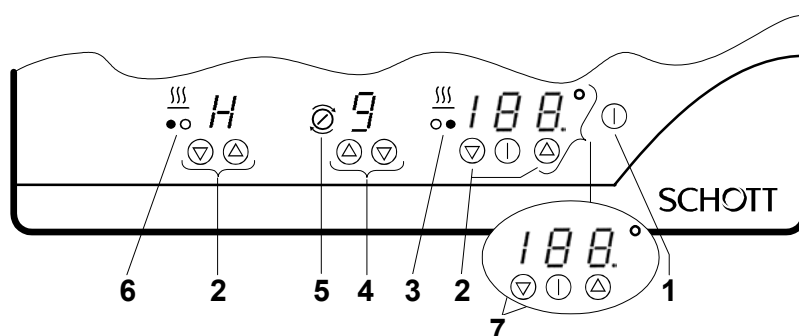
188° Command-value temp.
without decimal point

188.° Actual-value temp.
right decimal point

SLK 2-T






SLK 6







For an explanation of the „Working with the Laboratory hot plates“ chapter, please refer to the following page.



Detailed explanation of the „Working with the Laboratory hot plates“ chapter




- 1 ① Sensor key „On / Off“ for switching the Laboratory hot plates on/off (on/off switch)
If, after the Laboratory hot plate is switched on, no other sensor is touched within 10 seconds, the Laboratory hot plate will switch off automatically. For safety reasons, all settings of the Laboratory hot plate will be switched down to stage 0.




with SLK 6 will light up at the heating zone $\overset{\text{III}}{\bullet\bullet}$ for 10 seconds
 / 10 s
a) the middle segments of the display , if a **temperature sensor** is connected;
b) an << S >> on the left and a << 0 >> on the right , if **no temperature sensor** is connected.


 / 10 s right display at the $\overset{\text{III}}{\bullet\bullet}$ heating zone, if **no temperature sensor** is connected.
- 2 ▽ / △ Sensor keys with a display for setting the heating stages 0 ... 9 on top of the keys
stage << 1 >> = lowest heating output
stage << 9 >> = highest heating output

 The left sensor key ▽ is used to switch directly from stage << 0 >> to the highest stage << 9 >>.
If both keys are touched simultaneously, the system will switch to stage << 0 >>.
If << H >> is displayed, residual heat is available (please refer to the „Putting into operation“ chapter).  Danger of burning 


with SLK 6 will light at the $\overset{\text{III}}{\bullet\bullet}$ heating zone,
 an << S >> on the left and a << 3 >> on the right the heating stage set , if **no temperature sensor** is connected.
If a **temperature sensor** is connected, the description under section 7 applies.
- 3 Heating symbol $\overset{\text{III}}{\bullet\bullet}$, in the case of the SLK 6 $\overset{\text{III}}{\bullet\bullet}$ for the right heating zone.
- 4 ▽ / △ Sensor keys with a display for setting the stirring stages 0 ... 9 on top of the keys.
stage << 1 >> = stirring speed approx. 100 U·min⁻¹
stage << 9 >> = stirring speed approx. > 1000 U·min⁻¹



 The left sensor key ▽ is used to switch directly from stage << 0 >> to the highest stage << 9 >>.
If both keys are touched simultaneously, the system will switch to stage << 0 >>.
- 5 Stirrer symbol 
- 6 Heating symbol $\overset{\text{III}}{\bullet\bullet}$, heating symbol for the left heating zone in the case of the SLK 6.
- 7  Sensor keys and display
If a temperature sensor is connected, the display on top of it will show the command temperature in °C if one of the sensor keys is touched.
If no temperature sensor is connected, the description under section 2 applies.
Left key ▽ for setting the command value from 199 °C ... room temperature
Right key △ for setting the command temp. from room temperature ... 199 °C
Simultaneous touching of the sensor keys switches the temperature display from command to actual value. In addition, the decimal point will light up on the right side.
After touching the sensor keys simultaneously again, the display will change between command and actual value at intervals of 2 seconds.
Touching any of the sensor keys again will interrupt this alternating display.
The command value is displayed again.

▽ and △ 
▽ and △
▽ or △ 
① Touching the sensor key ① again will switch off the controllable heating zone $\overset{\text{III}}{\bullet\bullet}$.
 / 10 s Subsequently the three middle segments will light up for 10 seconds, if none of the ▽ or △ sensor keys is touched.

Display of the temperature in the case of the SLK 6 Laboratory hot plate: 

Symbol for residual heat:  will keep on lighting up

Switching the plates off: touching the ① sensor: **immediately**  and after

Switching the heating zones off: simultaneous touching of the ▽ + △ sensors: initially  for 10 s then 

5 Cleaning, care, and maintenance

The glass-ceramics material is largely chemically resistant, the heating zone remains plane at all times, is free of pores and therefore easy to clean. If the heating zone is slightly dirty, you should at best clean it simply using warm water and a few drops of a household washing-up liquid as long as the heating zone is lukewarm or cold.

To remove crust, lime, and water marks or stains with a metallic shine you should use a household detergent for ovens with glass-ceramics boiling zones. Please use a wet cloth or sponge to remove the detergent residues as well, since some of the commercially available detergents adopt an etching effect at higher temperatures. If soiling has already turned into a crust, you should use a razor-blade scraper. Plastic objects and aluminium foil as well as **sugar-containing substances** reaching the hot surface **are to be lifted off immediately** using the razor-blade scraper.



Never use abrasive cleaners! In most cases it will suffice after each use to clean the plates using a moist cloth and some household washing-up liquid. Subsequently rub dry.




Crusts and food boiled over should at best be first soaked with a wet cloth. Subsequently, use a glass scraper to remove the residues.

Note:

Sugar and melted plastics should be removed immediately when the heating zone is still hot.

6 Malfunction, possible defects

Malfunction / defect	Cause	Remedy
The Laboratory hot plates does not switch on; heating zone does not heat up	Sensor field not clean	Moist cleaning of sensor field, rub dry
	No mains voltage	Check mains cable including its connectors; check fuse of the mains-socket circuit, replace if necessary
	Defective heating zone; defective electronics	Separate Laboratory hot plates from current supply: separate from mains; send Laboratory hot plates in for repair
No display	7-segments display or corresponding electronics defective	Caution! Danger of burning! Separate Laboratory hot plates from mains; send Laboratory hot plates in for repair
Impossibility of switching the Laboratory hot plates off	Electronics defective	Separate laboratory hot plates from mains; send Laboratory hot plates in for repair
In the case of the SLK 6 no display of the temperature, but 	Broken temperature sensor; temperature sensor is missing	Check connection of temperature sensor; if necessary, replace temperature sensor

Typ / type / type / tipo

**SLK 1
SLK 2
SLK 2-T
SLK 6**

Bescheinigung des Herstellers

Wir bestätigen, dass das oben genannte Gerät gemäß DIN EN ISO 9001, Absatz 8.2.4 „Überwachung und Messung des Produkts“ geprüft wurde und dass die festgelegten Qualitätsanforderungen an das Produkt erfüllt werden.

Supplier's Certificate

We certify that the equipment was verified according DIN EN ISO 9001, part 8.2.4 "Monitoring and measurement of product" and that the specified requirements for the product are met.

Certificat du fournisseur

Nous certifions que le produit a été vérifié selon DIN EN ISO 9001, partie 8.2.4 « Surveillance et mesure du produit » et que les exigences spécifiées pour le produit sont respectées.

Certificado del fabricante

Hacemos constar que el equipo mencionado anteriormente ha sido probado de acuerdo con la norma DIN EN ISO 9001, sección 8.2.4 „Verificación y medición del producto“ y que se cumplen los requisitos especificados para el producto.

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