



designed for scientists



## KS 4000 i control

/// Data Sheet

Innovative incubator shaker design allowing unattended operation in a temperature-controlled environment.

- Large LED display for speed and time settings
- Controls with antimicrobial coating for reduction of bacteria
- Integrated PID temperature control (use of two PT 1000 temperature sensors)
- Junction box in the workspace for connection of an additional temperature sensor e.g. PT 1000.60
- Electronic temperature and speed control
- Electronic timer switch: 0 - 999 h (set by the minute or by the hour)
- Optional built-in cooler for connection to an external cooling unit e.g. KV 600



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- Unit switches off automatically if disturbed
- Unit stops automatically when hood is lifted
- Collecting tray with drain hose on rear of unit
- Simple operation
- All functions can be controlled and documented with labworldsoft®
- Attachments are not included in delivery, please order separately

Shaking movement: orbital

Orbital diameter: 20 mm

Max. shaking weight (with attachment): 20 kg

Infinitely adjustable speed range: 10 - 500 rpm

Heat output: 1.000 W

Temperature range: RT + 5°C to 80 °C



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## Technical Data

|                                                                                            |                                |
|--------------------------------------------------------------------------------------------|--------------------------------|
| Type of movement                                                                           | orbital                        |
| Shaker diameter [mm]                                                                       | 20                             |
| Permissible shaking weight (incl. attachment) [kg]                                         | 20                             |
| Motor rating input [W]                                                                     | 82                             |
| Motor rating output [W]                                                                    | 24                             |
| Permissible ON time [%]                                                                    | 100                            |
| Speed min (adjustable) [rpm]                                                               | 10                             |
| Speed range [rpm]                                                                          | 10 - 500                       |
| Speed display                                                                              | LED                            |
| Speed deviation [%]                                                                        | 1                              |
| Speed deviation [ $\pm$ rpm]                                                               | 1                              |
| Speed control                                                                              | 1 RPM steps                    |
| Timer                                                                                      | yes                            |
| Timer display                                                                              | 7 segment LED                  |
| Time setting range [min]                                                                   | 1 - 59940                      |
| Operating mode                                                                             | timer and continuous operation |
| Heating temperature range [°C]                                                             | room temp. +5° - 80            |
| Heat output [W]                                                                            | 1000                           |
| Set temperature resolution [ $\pm$ K]                                                      | 0.1                            |
| Control accuracy with sensor (1 vessel 0.5 L H <sub>2</sub> O, RT 22°C, T=37°C) [ $\pm$ K] | 0.5                            |
| Temperature display                                                                        | yes                            |
| Temp. stability (0,2l H <sub>2</sub> O; RT 25°C, T=37°C) [ $\pm$ K]                        | 0.1                            |
| Operating area inner chamber [mm]                                                          | 440 x 440 x 352                |
| Total volume inner chamber [l]                                                             | 90                             |
| Raw material housing                                                                       | Sheet metal powder coat        |
| Raw material front foil                                                                    | polyester                      |
| Temperature stability (1 vessel 0.5 L, RT 25°C, T=37°C) [ $\pm$ K]                         | 0.05                           |
| Temperature homogeneity (5 vessel 0.5 L; RT 25°C, T=37°C) [ $\pm$ K]                       | 0.5                            |
| Height with open hood [mm]                                                                 | 875                            |
| Dimensions (W x H x D) [mm]                                                                | 580 x 525 x 750                |
| Weight [kg]                                                                                | 24                             |
| Permissible ambient temperature [°C]                                                       | 15 - 32                        |
| Permissible relative humidity [%]                                                          | 80                             |
| Protection class according to DIN EN 60529                                                 | IP 30                          |
| RS 232 interface                                                                           | yes                            |
| Voltage [V]                                                                                | 230 / 115 / 100                |
| Frequency [Hz]                                                                             | 50/60                          |
| Power input [W]                                                                            | 1120                           |



# WolfLabs

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The specifications listed in this brochure are subject to change by the manufacturer and therefore cannot be guaranteed to be correct. If there are aspects of the specification that must be guaranteed, please provide these to our sales team so that details can be confirmed.

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