

# IKA

designed for scientists



## KS 4000 ic 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. RC 2 basic / control



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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
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
Temperature range (inlet T>3°C) [°C]	12 - 80
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]	34
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



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