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## RCT classic

/// Data Sheet

The RCT classic magnetic stirrer stands for reliability, exceptionally long product lifetimes and the highest safety standards.

RCT classic is suitable for stirring tasks up to 20 l (H<sub>2</sub>O) and reaches a hotplate temperature of up to 310°C. With the connection option for an external temperature sensor (PT 1000.60 included in delivery), the temperature can be measured and controlled directly in the reaction medium.

Thanks to perfect insulation of the aluminum heating plate, maintenance-free EC motor and electronic switching power



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supply, RCT classic features excellent energy efficiency as well as reduced self-heating of the heating plate during stirring operation, thus contributing to a more sustainable laboratory.

In the latest generation, RCT classic presents itself in proven quality and with numerous new features:

Tempered shatterproof glass surface for optimal chemical resistance and easy cleaning

Largest display in its class with easy-to-read LED display

Illuminated symbols for displaying important status information (set and actual temperature, heating status, temperature sensor)

QR code for quick access to device information, accessories, downloads and extended warranty

Easily accessible main switch on the front of the device

Safe, robust and compliant with standards

RCT classic contains the proven safety features for IKA magnetic stirrers. In accordance with the DIN EN 61010-2-010 standard, it meets all safety requirements for laboratory equipment for heating substances and is therefore also suitable for unattended operation.

Tested and certified by TÜV SÜD according to standard IEC 61010-1 (cTÜVus)

Adjustable hotplate temperature safety circuit (with tool)

Confirmation mode (operating mode D) prevents the unintentional change of the set setpoints. At restart, the confirmation of the safety temperature is necessary.

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Automatic switch-off of the temperature control function if the connected external temperature sensor is not immersed in the medium or is defective. Function selectable, timeout time adjustable (Error 5).

Enclosed design (protection class IP42) guarantees long service life, even under extreme conditions in the laboratory

Reliable operation even with cold media. Extended temperature display down to -20°C (with external sensor).

Protected electronic connections on the back of the device

Fireproof die-cast aluminum housing with high quality and durable powder coating

DIN socket 12878 for connecting an electronic contact thermometer, e.g. ETS-D5 for high-presence temperature control.

In this combination, the experimental setup is extended by a further independent safety circuit for the reaction medium.

Proven technology

Heating plate made of aluminum for optimal and homogeneous heat transfer

Excellent magnetic coupling

Soft start prevents magnetic stir bars from breaking off during the start phase

Two optimized temperature control modes ensure fast heating or precise temperature control without overshooting

Push and turn buttons for independent adjustment of the setpoints and starting / stopping of temperature and speed

Scope of delivery

- RCT classic

- IKAFLON® 30 Magnetic stirring bar



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- IKAFLON® 40 Magnetic stirring bar
- PT 1000.60 Temperature sensor, stainless steel
- H 80 Temperature sensor holder
- Screwdriver



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## Technical Data

|                                                                                                                   |                                        |
|-------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| Number of stirring positions                                                                                      | 1                                      |
| Stirring quantity max. per stirring position (H <sub>2</sub> O) [l]                                               | 20                                     |
| Maximum load [kg]                                                                                                 | 25                                     |
| Motor rating output [W]                                                                                           | 9                                      |
| Direction of rotation                                                                                             | right                                  |
| Speed display set-value                                                                                           | LED                                    |
| Speed display actual-value                                                                                        | LED                                    |
| Speed adjustment                                                                                                  | Turning knob                           |
| Speed range [rpm]                                                                                                 | 50 - 1500                              |
| Setting accuracy speed [rpm]                                                                                      | 10                                     |
| Stirring bar length [mm]                                                                                          | 20 - 80                                |
| Self-heating of the set-up plate by max. stirring (RT:22°C/duration:1h) [K]                                       | +17                                    |
| Heat output [W]                                                                                                   | 600                                    |
| Temperature display set-value                                                                                     | LED                                    |
| Temperature display actual-value                                                                                  | LED                                    |
| Temperature unit                                                                                                  | °C                                     |
| Heating temperature range [°C]                                                                                    | Room temp. + device self heating - 310 |
| Heat control                                                                                                      | Turning knob                           |
| Temperature setting range [°C]                                                                                    | 0 - 310                                |
| Temperature setting resolution of heating plate [K]                                                               | 1                                      |
| Connection for ext. temperature sensor                                                                            | PT1000, ETS-D5, ETS-D6                 |
| Temperature setting resolution of medium [K]                                                                      | 1                                      |
| Adjustable safety circuit [°C]                                                                                    | 50 - 360                               |
| Set-up plate material                                                                                             | Aluminium alloy                        |
| Set-up plate dimensions [mm]                                                                                      | Ø 135                                  |
| Sensor in medium detection                                                                                        | yes                                    |
| Temperature measure range PT1000 [°C]                                                                             | -20 - 350                              |
| Speed deviation (no load,nominal voltage, at 1500rpm + 25 °C) [%]                                                 | ±2                                     |
| Heating rate (1l H <sub>2</sub> O in H1500) [K/min]                                                               | 6.5                                    |
| Heat control accuracy of heating plate centre without vessel (at 100°C) [K]                                       | ±5                                     |
| Heat control accuracy with ext. PT1000 (500ml H <sub>2</sub> O in 600ml beaker,40mm stirring bar,600rpm,50°C) [K] | ±1                                     |
| Heat control accuracy with ETS-D5 (500ml H <sub>2</sub> O in 600ml beaker,40mm stirring bar,600rpm,50°C) [K]      | ±0.5                                   |
| Heat control accuracy with ETS-D6 (500ml H <sub>2</sub> O in 600ml beaker,40mm stirring bar,600rpm,50°C) [K]      | ±0.2                                   |
| Dimensions (W x H x D) [mm]                                                                                       | 160 x 85 x 270                         |
| Weight [kg]                                                                                                       | 2.4                                    |
| Permissible ambient temperature [°C]                                                                              | 5 - 40                                 |
| Permissible relative humidity [%]                                                                                 | 80                                     |
| Protection class according to DIN EN 60529                                                                        | IP 42                                  |
| USB interface                                                                                                     | USB-B (FUT)                            |
| Voltage [V]                                                                                                       | 220 - 230                              |
| Frequency [Hz]                                                                                                    | 50/60                                  |
| Power input [W]                                                                                                   | 650                                    |
| Power input standby [W]                                                                                           | 1.6                                    |