



designed for scientists



## RCT basic

/// Hoja de Datos

For almost half a century, RCT basic has not only been our bestseller, but also the standard and reference device in laboratories and research facilities worldwide. The RCT basic magnetic stirrer stands for reliability, exceptionally long product lifetimes and the highest safety standards.

RCT basic 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 basic 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 basic 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)
- USB and RS232 interface for control or documentation of the test parameters via a PC
- Compatible with labworldsoft® laboratory software
- 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 basic 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-precision 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



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- 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



## Información Técnica

Número de puestos de agitación	1
Max. cantidad a agitar (H2O) [l]	20
Potencia del suministro del motor [W]	9
Dirección de rotación del motor	derecha
Indicación de velocidad valor programado	LED
Indicación de velocidad valor real	LED
Control de velocidad	Botón giratorio
Rango de velocidad [rpm]	50 - 1500
Exactitud de ajuste de la velocidad [rpm]	10
Longitud de la barra de agitación [mm]	20 - 80
Autocalentamiento de la placa (RT:22°C/duración:1h) [K]	+13
Potencia de calefacción [W]	600
Indicación de temperatura valor programado	LED
Indicación de temperatura valor real	LED
Unidad de temperatura	°C
Rango de temperatura de calefacción [°C]	Temp. ambiente + autocalentamiento del aparato - 3
Control de calentamiento	Botón giratorio
Rango de ajuste de temperatura [°C]	0 - 310
Exactitud de ajuste de temperatura de la placa de calentamiento [K]	1
Ext. para conectar el sensor de temperatura	PT1000, ETS-D5, ETS-D6
Exactitud de ajuste de la temperatura del medio [K]	1
Circuito de seguridad regulable [°C]	50 - 360
Material de la superficie de la placa	Aleación de aluminio
Dimensiones de la superficie de la placa [mm]	Ø 135
Detección de sensor en el fluido (error 5)	sí
Rango de medición de temperatura PT1000 [°C]	-20 - 310
Desviación de velocidad (sin carga, tensión nominal, a 1500 rpm + 25 °C) [%]	±2
Velocidad de calentamiento (1 l de H2O en H1500) [K/min]	6.5
Exactitud de regulación de la temperatura de la placa de calentamiento (a 100 °C) [K]	±5
Exactitud de regulación de la temperatura con PT1000 ext. (500 ml de H2O, varilla magnética de 40 mm, 600 rpm, 50 °C) [K]	±0.5
Exactitud de regulación de la temperatura con ETS-D5 (500 ml de H2O, varilla magnética de 40 mm, 600 rpm, 50 °C) [K]	±0.5
Exactitud de regulación de la temperatura con ETS-D6 (500 ml de H2O, varilla magnética de 40 mm, 600 rpm, 50 °C) [K]	±0.5
Dimensiones (An x Al x Pr) [mm]	160 x 85 x 270
Peso [kg]	2.4
Temperatura ambiental permitida [°C]	5 - 40
Humedad relativa permitida [%]	80
Clase de protección de acuerdo al DIN EN 60529	IP 42
Interfaz de RS 232	sí
Interfaz de USB	sí
Voltaje [V]	220 - 230
Frecuencia [Hz]	50/60
Consumo de energía [W]	650
Consumo de energía Standby [W]	1.6