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RCT basic anodized ETS-D5 Solution

/// Data Sheet

The RCT basic ETS-D5 Solution consists of the RCT basic anodized magnetic stirrer and the ETS-D5 electronic contact thermometer making experiments and reactions even safer.

Improved temperature control

By combining the two devices, the internal safety circuit, which is independent of the RCT basic software, can be addressed directly by the contact thermometer. For this purpose, the maximum permissible temperature in the medium is limited independently of the set point temperature. If this value is exceeded, the heating function of the magnetic stirrer switches off via the internal safety circuit - until the device is restarted. At the same time, the stirring function is



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maintained to avoid boiling distortions.

The set safety temperature of the heating plate also remains available. The set temperature limitation of the ETS-D5 and the safety temperature of the hotplate are OR-linked. This means that every potential error leads to the heating being switched off. In addition, the temperature of the heating plate can be set independently of the medium. In this way, you actively influence the heating times.

Improved display

With the ETS-D5, you also enhance the display of your magnetic stirrer. You can see the set and actual value of the medium temperature at a glance with a resolution of 0.1 K on the contact thermometer. The setting accuracy is also refined from 1 K to 0.1 K in this combination. The current hotplate temperature is also displayed on the RCT.

Another plus: The display of the contact thermometer can be placed at eye level. This makes it directly visible where the temperature is measured and controlled.

In addition to the magnetic stirrer and contact thermometer, the complete solution also includes all the necessary mounting elements.

Scope of delivery

- RCT basic anodized
- Magnetic stirring bar Set 30+40
- H 44 Boss head clamp
- Screw driver
- ETS-D5 Electronic contact thermometer
- PT 1000.60 Temperature sensor, stainless steel
- H 38 Holding rod

Technical Data

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|--|--|
| Number of stirring positions | 1 |
| Stirring quantity max. per stirring position (H ₂ O) [l] | 20 |
| Maximum load [kg] | 25 |
| Motor rating output [W] | 9 |
| Motor principle | Brushless DC |
| Direction of rotation | right |
| Speed display set-value | LED |
| Speed display actual-value | LED |
| Speed adjustment | Control knob (Rotating / Pressing) |
| 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] | +12 |
| Heat output [W] | 800 |
| 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 | Control knob (Rotating / Pressing) |
| Display resolution [K] | 0.1 |
| Temperature setting range [°C] | 0 - 310 |
| Temperature setting resolution of heating plate [K] | 1 |
| Connection for ext. temperature sensor | PT1000, ETS-D5, ETS-D7, PT wireless |
| Temperature setting resolution of medium [K] | 1 |
| Operating temperature min. (with external cooling) [°C] | -20 |
| Adjustable safety circuit [°C] | 50 - 360 |
| Set-up plate material | Aluminum with ceramic coating |
| Set-up plate dimensions [mm] | Ø 135 |
| Automatic reverse rotation | optional (with IKA HUB) |
| Intermittent mode | optional (with IKA HUB) |
| Timer | yes |
| Timer display | LED |
| Time setting min. [s] | 1 |
| Time setting max. [min] | 5999 |
| pH measurement | optional (with ETS-D7, PT wireless) |
| Programs | optional (with IKA HUB) |
| Sensor in medium detection | yes |
| Temperature measure range PT1000 [°C] | -20 - 310 |
| PT 1000 deviation;DIN EN 60751 Kl. A [K] | ≤ ± (0.15 +0.002x t) |
| Speed deviation (no load,nominal voltage, at 1500rpm + 25 °C) [%] | ±2 |
| Heating rate (1l H ₂ O in H1500) [K/min] | 9 |
| Heat control accuracy of heating plate centre without vessel (at 100°C) [K] | ±5 |
| Heat control accuracy with ext. PT1000 (500ml H ₂ O in 600ml beaker,40mm stirring bar,600rpm,50°C) [K] | ±0.5 |
| Heat control accuracy with ETS-D5 (500ml H ₂ O in 600ml beaker,40mm stirring bar,600rpm,50°C) [K] | ±0.5 |
| Heat control accuracy with ETS-D7 (500ml H ₂ O in 600ml beaker, 40mm stirring bar, 600rpm, 50°C) [K] | ±0.2 |
| Heat control accuracy with PT wireless (500ml H ₂ O in 600ml beaker, 40mm stirring bar, 600rpm, 50°C) [K] | ±0.2 |
| Dimensions (W x H x D) [mm] | 160 x 100 x 200 |
| Weight [kg] | 2.3 |



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|--|-------------------|
| Permissible ambient temperature [°C] | 5 - 40 |
| Permissible relative humidity [%] | 80 |
| Protection class according to DIN EN 60529 | IP 54 |
| RS 232 interface | yes |
| USB interface | USB-C |
| WPAN interface | optional (USB WD) |
| Voltage [V] | 220 - 230 |
| Frequency [Hz] | 50/60 |
| Power input [W] | 820 |
| Power input standby [W] | 0.45 |