

PREMIUM LABORATORY EQUIPMENT



Laboratory and Magnetic Stirrers

GENTLE POWERHOUSES



Hei-Control Software

With the Hei-Control software, Hei-Connect magnetic stirrers and Hei-TORQUE Ultimate overhead stirrers can be actuated simultaneously to automate and to reproduce their processes. It enables the programming and visualization of process parameters as well as the export of captured data.

Use the free software to

- Program process parameters and ramps
- Read out process sequences in the software and save them
- Reload saved settings for reproducible results
- Control up to 4 devices simultaneously

Compatible with the
Hei-Connect magnetic stirrer and
Hei-TORQUE Ultimate overhead
stirrer models



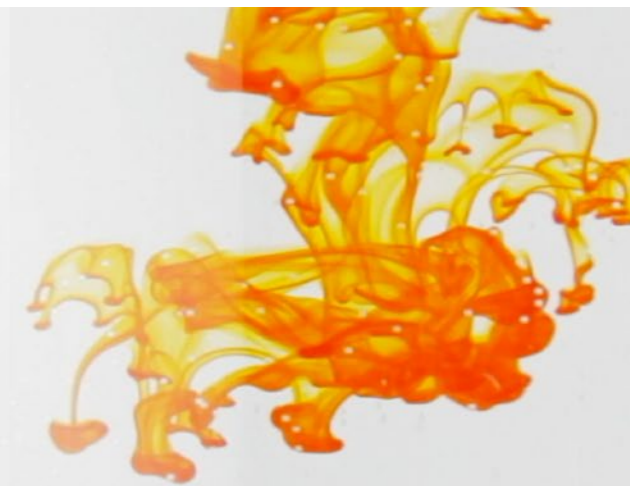
Download the Hei-Control software
free of charge from www.heidolph.com

Hei-PLATE Magnetic Stirrer

Homogeneous Stirring

The robust magnetic stirrers of the Hei-PLATE series were developed to mix low-viscosity liquids optimally – from gently to intensively.

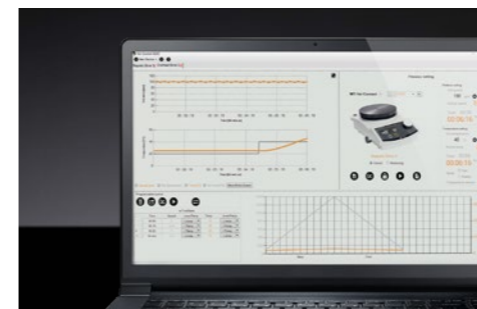
They are ideally suitable for the homogenization of organic and inorganic materials. The premium devices offer leading safety standards and optimum ease of use. 800 W heating power (for 230-V models) and the special Kera-Disk® plate with aluminum core enable the shortest heating phases and a reduced cost of ownership.





Leading Safety Standards

- Multiple independent safety mechanisms monitor the ongoing process. In the event of an error, the heating plate is switched off automatically
- If combined with Heat-On blocks, there is no need to use oil
- All models are equipped with a visual residual heat indicator to prevent burns
- For safety reasons, the relevant functions are switched off completely in the event of a short-circuit, temperature sensor break, defective motor and in case of a processor fault
- Unwanted heating is prevented by separate activation of the heating function. The activated heating function can be clearly identified by the illumination of the button or the rotary knob (depending on the model)
- To prevent any splashing, the rotation speed ramps up slowly until it has reached the desired value
- Damage to the device is impossible even at the highest temperatures – all models are equipped with a fire-resistant die-cast housing
- The integrated PID controller ensures precise reaching of the target temperature



Superior ease of use

- The unique Kera-Disk® coating is extremely resistant to chemicals and scratches. The plate is therefore easy-care and dirt can be removed easily
- The powerful stirring magnet allows the stirring rod to be safely entrained even with larger quantities of up to 20 l
- If the hotplate fails, the stirring process is not interrupted. This prevents the sample from overheating
- Efficient (low temperature) thermal insulation prevents condensation in the housing and thus the contact between condensation water and electronic components
- On devices with a display, all parameters can be read from the large, illuminated display, even from a greater distance

MADE IN
GERMANY

All Benefits at a Glance

3-year warranty on all devices and an average operational lifespan of 10 years

Safe Heating and Mixing

Reduced Cost of Ownership

- Clearly shorter process times. The high heating power of 800 watts enables significantly faster heating times in comparison to conventional magnetic stirrers with 600 watts
- Thanks to its aluminum core, the patented Kera-Disk® heating plate ensures the fastest heating up times. Due to the resistant ceramic coating, the plate is chemical-resistant and scratch-proof
- Corrosion-protected electronics add many years to the operational lifespan and reduce expenditure for new purchases
- Wear- and maintenance-free motors save repair and spare part costs
- The average use period is over 10 years and therefore makes its acquisition a worthwhile investment
- A high IP protection class and a closed housing ensure a long life with low repair susceptibility



With the free Hei-Control software for the Hei-Connect, process parameters can be controlled and stored via a PC

The closed housing protects the electronic and mechanical components of the magnetic stirrer from aggressive media and fumes

Multiple independent safety mechanisms monitor the ongoing process and switch off the heating plate in the event of an error or fault

In the event of a short-circuit, sensor break of the temperature sensor and a processor fault, the device completely switches off the relevant functions

A heating power of 800 watt means significantly faster heating times compared to magnetic stirrers with 600 watt.

The patented Kera-Disk® heating plate ensures the fastest heating times; an extremely thin ceramic coating makes the plate chemical-resistant

In the event of a heating plate failure, the stirring process is NOT interrupted; this prevents overheating of the sample

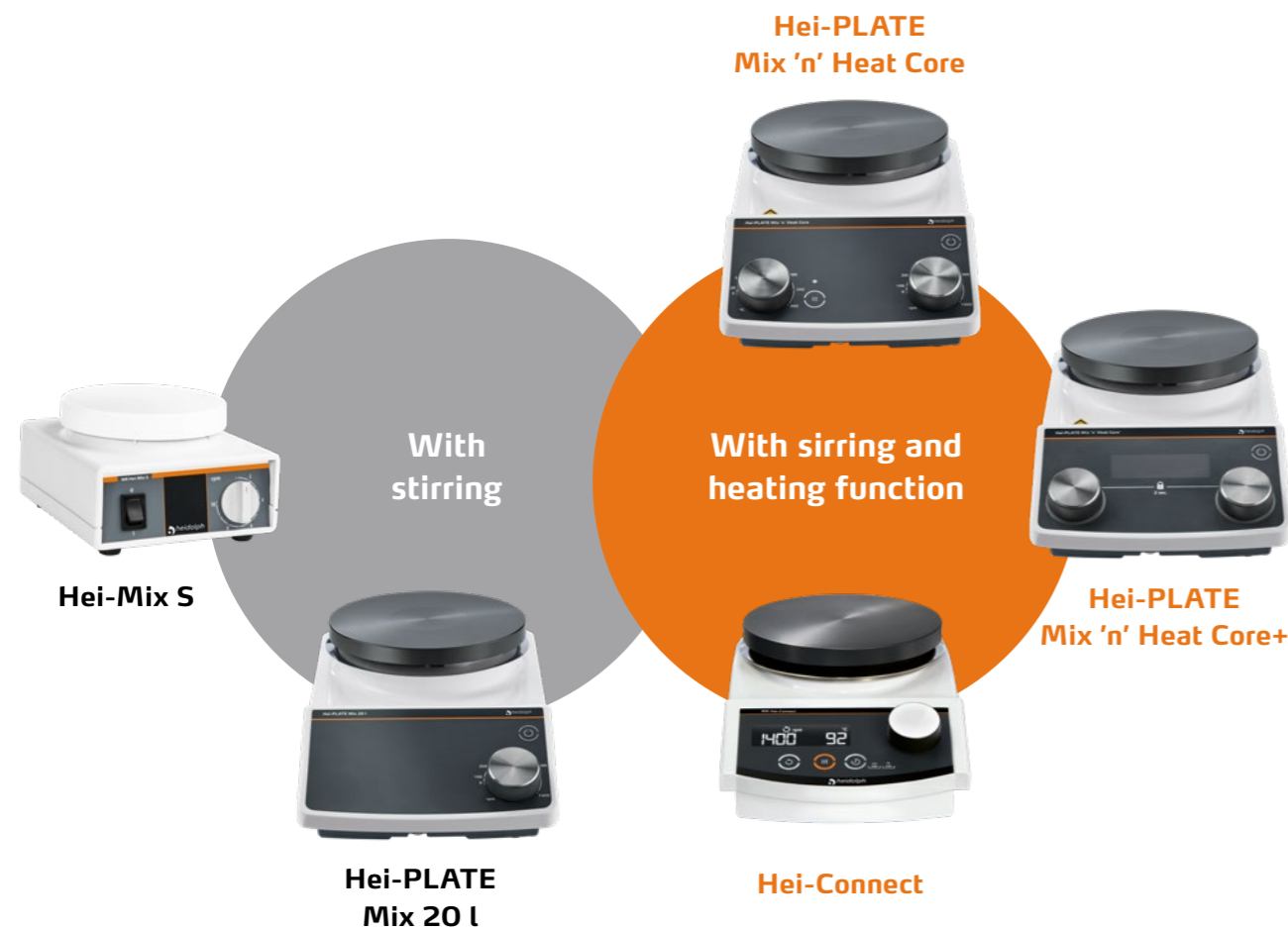
Damage to the device is excluded, even at the highest temperatures – the models have a fireproof die-cast housing

A separate On/Off button for the heating function prevents unwanted heating. The activated heating function is clearly detectable. In addition, a residual heat indicator effectively protects against burns after the heating function has been switched off



The Hei-PLATE series

Whether with or without a heating function, all our magnetic stirrers have one thing in common: A gentle and yet powerful stirring function, which enables up to 20 liters of low-viscosity media to be mixed.



- Absolutely robust and durable
- Leading safety standards and superior ease of use
- Top chemical resistance and fastest heating times due to the patented Kera-Disk® plate

Magnetic stirrers

Hei-Mix S

For biology and biochemistry stirring tasks

- With space-saving polyamide housing
- The white PVDF top plate is ideally suited for titration and has a diameter of 104 mm
- The speed range of up to 2,200 rpm is sufficient for applications up to 5 l



Hei-PLATE Mix 20 l

For large stirring tasks

- Due to the Kera-Disk® ceramic coating, the top plate is chemical-resistant and scratch-proof
- In order to handle the sample gently, following a soft start, the speed is slowly increased to the required value
- Ideal for applications up to 20 l, as the diameter of the plate is 145 mm and the speed range extends from 100 to 1,400 rpm



Model	P/N
Hei-Mix S	503-02000-00
Hei-PLATE Mix 20 l	506-54100-00

Magnetic stirrer with heating function

Hei-PLATE Mix 'n' Heat Core

For easy and safe entry level

Hei-PLATE Mix 'n' Heat Core+

For academic standards with temperature sensor

Precise setting options and monitoring of the device parameters via the digital display and connection for the external Pt 1000 temperature sensor.

Precise values without temperature fluctuations are achieved with the optional Pt 1000 temperature sensor.



- **Innovative product design:** Underside with grip; flattened edges, which discharge liquids from the device; enlarged safety distance of the control elements from the heating plate, enclosure tested to IP 42
- Two rotary knobs with scale make adjustment of the speed between 100 and 1,400 rpm easier, with a speed accuracy of $\pm 2\%$ and the max. temperature of 300 °C
- A separate button for the heating function prevents unwanted heating. The button illumination indicates the activated heating function
- Flashing of the heating button signals residual heat and thus also effectively warns to protect against burns even after the heating function is switched off

- Fast access and activation of the heating and stirring function due to the separate rotary-pressure controller for intuitive setting of the parameters – precise or large jumps between 100 and 1,400 rpm and the maximum temperature of 300 °C
- The controller's locking function protects against accidental adjustment
- The values in the illuminated display are easy to read even from a distance. Activated functions are easily detectable due to the LED rings
- Flashing of the orange LED ring signals residual heat and thus also effectively warns to protect against burns even after the heating function is switched off
- Fast and precise temperature control via the connection of an optional external temperature sensor and two selectable heating modes (FAST and PRECISE)
- To protect the sample, the external sensor monitoring switches off the heating automatically if the temperature sensor is no longer immersed in the medium

NEW



Available from mid-2022



Combinable with the Hei-Con electronic contact thermometer (optional) for even more precision when setting the values.

Model	Heating plate	P/N
Hei-PLATE Mix 'n' Heat Core	Ø 145 mm	506-11100-00

NEW



Model	Heating plate	P/N
Hei-PLATE Mix 'n' Heat Core+	Ø 135 mm	506-22100-00
Hei-PLATE Mix 'n' Heat Core+	Ø 145 mm	506-21100-00

Hei-Connect

For comprehensive process documentation and reproducible results

For exact process documentation with precise setting option and monitoring of the device parameters via the digital display and connection for the Pt 1000 temperature sensor.

- With connection for the optional Pt 1000 temperature sensor for precise values without temperature fluctuations
- All values can be easily read on the illuminated display even from a distance
- Illuminated buttons indicate activated functions
- The speed can be set precisely via the rotary knob from 100 to 1,400 rpm with a speed accuracy of $\pm 2\%$ and a max. temperature of 300 °C
- An independent safety circuit switches off the heating to protect against overheating if the set temperature is exceeded by 25 °C
- To protect the sample, the external sensor monitoring switches off the heating automatically if the temperature sensor is not immersed in the medium
- With the timer function, process times for the heating and rotation functions can be defined separately; an acoustic signal sounds at the end of the process
- Residual heat indicator effectively protects from burns



Model	P/N
Hei-Connect	505-40000-00
Hei-Connect with Pt 1000 temperature sensor	505-40081-00



Reproducible results through programming of ramps and interval processes. With RS 232 interface for detailed process documentation directly on the PC.

Timer function

The Hei-Control software is included in the scope of supply and is available to download for free at www.heidolph.com

Technical Specifications

Magnetic stirrers

Model	Hei-Mix S	Hei-PLATE Mix 20 L
Speed range	0–2.200 rpm	100–1.400 rpm
Speed accuracy	±5 %	±2 %
Drive	Shaded pole motor	EC motor, left-handed
Overheat protection	–	–
Operating mode	Continuous operation	Continuous operation
Power input	7 W	20 W
Connection	L+N+PE	L+N+PE
Sound pressure level	IEC 61010 <70 dB (A)	<50 dB (A)
Display	–	–
Analog/digital interface	–	–
Heating power	–	–
Heating temperature range	–	–
Heating control	–	–
Accuracy temperature setting	–	–
Sensor connection	–	–
Control accuracy hotplate	–	–
Residual heat indicator	–	–
Timer	–	–
Max. stirring capacity	H₂O 5 l	20 l
Max. load	6 kg	25 kg
Usable area of heating plate	Ø 104 mm	145 mm
Top plate material	PVDF	Kera-Disk® aluminum alloy, coated
Weight	1.1 kg	3.0 kg
Dimensions	w/d/h 126×140×80 mm	168×299×101 mm
Maximum height above sea level	up to 2,000 mamsl	up to 2,000 mamsl
Admissible permissible ambient conditions	5–31 °C at up to 80% rel. humidity, 32–40 °C at up to 50% rel. humidity (linearly reducing)	5–31 °C at up to 80% rel. humidity, 32–40 °C at up to 50% rel. humidity (linearly reducing)
EMC class		B, Group 1
Overvoltage category		II
Protection class	IEC 61140	I
Degree of protection	IEC 60529 IP 21	IP 42

Standard supply voltage: 230 V. Other supply voltages on request.

Technical Specifications

Magnetic stirrers with heating function

Hei-PLATE Mix 'n' Heat Core	Hei-PLATE Mix 'n' Heat Core+	Hei-Connect
100–1.400 rpm	100–1.400 rpm	100–1.400 rpm
±2 %	±2 %	±2 %
EC motor, left-handed	EC motor, left-handed	EC motor
–	–	no, but error message
Continuous operation	Continuous operation	Continuous operation
825 W	825 W	825 W
L+N+PE	L+N+PE	L+N+PE
<50 dB (A)	<50 dB (A)	<70 dB (A)
–	LCD display	digital
–	–	digital (RS 232)
800 W	800 W	800 W
20–300 °C	20–300 °C	20–300 °C
PID	PID	Micro controller
–	±1 K	±1 K with sensor
EKT Hei-Con	Pt 1000	Pt 1000
±5 °C	±5 °C	±5 °C
yes	yes	yes
–	–	yes
20 l	20 l	20 l
25 kg	25 kg	25 kg
145 mm	135 /145 mm	145 mm
Kera-Disk® aluminum alloy, coated	Kera-Disk® aluminum alloy, coated	Kera-Disk® aluminum alloy, coated
3.0 kg	3.0 kg	2.9 kg
168×299×101 mm	168×299×101 mm	173×277×94 mm
up to 2,000 mamsl	up to 2,000 mamsl	up to 2,000 mamsl
5–31 °C at up to 80% rel. humidity, 32–40 °C at up to 50% rel. humidity (linearly reducing)	5–31 °C at up to 80% rel. humidity, 32–40 °C at up to 50% rel. humidity (linearly reducing)	5–31 °C at up to 80% rel. humidity, 32–40 °C at up to 50% rel. humidity (linearly reducing)
B, Group 1	B, Group 1	
II	II	
I	I	I
IP 42	IP 42	IP 32

Standard supply voltage: 230 V. Other supply voltages on request.

Accessories for Magnetic Stirrers



Heating bath¹

1l	PTFE coated	504-93100-00
2l	PTFE coated	504-92100-00
4l	PTFE coated	504-91100-00



Heating bath for oil¹

1l	max. temperature 250 °C	504-93000-00
2l	max. temperature 250 °C	504-92000-00
4l	max. temperature 250 °C	504-91000-00



Concave block adapter¹

For 1 l round-bottom flasks 504-94000-00



Magnetic stirring bars

PTFE coated

cylindrical
25, 40, 50 mm 1 piece each 509-56000-00

Cross shape 16.5 mm
For 25–50 ml flask Pack of 20 509-58500-00

Evaluation kit for round-bottom flask
cross-shaped 10 and 16.5 mm,
elliptical 25 mm,
oval 40 and 50 mm 2 pieces each 509-58300-00

oval 15 × 6 mm
for round-bottom flask 10 ml Pack of 3 509-53000-00

oval 25 × 10 mm
for round-bottom flask 25–50 ml Pack of 3 509-54000-00

oval 30 × 10 mm
for round-bottom flask 100–250 ml Pack of 3 509-55000-00



Silicone protective cover

Protects magnetic stirrers from splashing and dripping water

For Hei-Connect 23-07-06-05-59

For Hei-PLATE Mix 20l 23-07-06-05-77

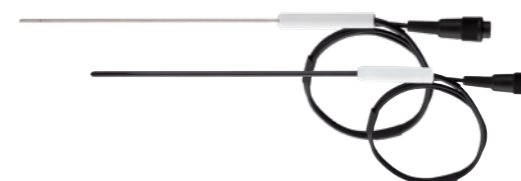
For Hei-PLATE Mix 'n' Heat models 23-07-06-05-76



Adapter plate

For use of accessories for Ø 145 mm heating plate with Ø 135 mm models

P/N 505-99000-01



Pt 1000 temperature sensor

For Hei-PLATE Mix 'n' Heat Core+

V4A 509-67910-00
Glass-coated 509-67920-00



Pt 1000 clamping system

With support rod and clamping device with cable routing

P/N 509-63100-00

Pt 1000 clamping system for large attachments (3–5 l)

With support rod and clamping device with cable routing

For Hei-Connect 509-63200-00
For Hei-Plate Mix'n'Heat models 509-63300-00



Available from mid-2022

Hei-Con electronic contact thermometer

For Hei-PLATE Mix 'n' Heat Core+

V4A 509-88000-00
Glass-coated 509-88100-00



RS 232 cable

9-pin, for Hei-Connect

P/N 14-007-040-72



Heating bath liquid

Heating bath liquid (5 kg)

up to 170 °C 515-31000-00
up to 220 °C 569-00600-00

¹ For magnetic stirrers with plate Ø 145 mm.
An adapter plate is available for models with Ø 135 mm.



WolfLabs

Pricing on any accessories shown can be found by keying the part number into the search box on our website.

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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Please contact us if this literature doesn't answer all your questions.