

## Hei-PLATE Mix 'n' Heat Ultimate

P/N: 036110232



Diverse connection option for an automated stirring and heating process

Our Hei-PLATE Mix 'n' Heat Ultimate is equipped with numerous interfaces for automated laboratory processes. The RS232 and USB B ports allow a control via our integrated Hei-PROCESS solution. You can actually integrate your device in our Hei-CONTROL Pro software via the LAN interface. As of the middle of 2024, the LAN interface will additionally support the communication protocol OPC UA. The USB A interface at the front allows data logging via a USB stick. For more comfort and safety, you can connect the magnetic stirrer with the electric Heidolph lab jack via the USB C interface.

There are three heating modes for temperature control: FAST for a quick heating, as well as PRECISE and PRECISE+ for the exact control of your target temperature without overshoot - this is how sensitive samples are optimally protected. Therefore, the device is compatible with the temperature sensor Pt1000 and the double sensor Pt1000 that allows the simultaneous measurement in your sample and in the bath liquid. The possibility to program ramps and to create individual profiles, increases the precision and reproducibility of your experiments.

For the stirring speed, there is a three-stage setting (start-up behavior). For mixing your sample

optimally, you can set the rotational direction of the magnetic stirring bar and benefit from the automatic stir bar detector.

This magnetic stirrer offers all relevant safety features. The large safety distance between the heating plate and the control panel as well as the visual residual heat indicator at temperatures > 50 °C protect against burns.

The patented Kera-Disk® plate made of anodized aluminum, is chemical-resistant, scratch-proof, and has a diameter of 145 mm. This unique size makes it suitable for the use with many accessories and samples on a small footprint. The material used also enables the fastest heating times.

## Hei-PLATE Mix 'n' Heat Ultimate - Technical Data

Overheat protection	Yes
Analog / digital interface	RS232, RJ45 (LAN), USB A, USB B, USB C
Permissible ambient conditions	5 – 31 °C at up to 80 % rel. humidity, 32 – 40 °C at up to 50 % rel. humidity (linearly reducing)
Weight	3 kg
Protection class (EN 60529)	IP 42
Drive	EC motor, counterclockwise/clockwise rotating
Timer	Yes
Display	2 x TFT display
Rotation speed range	100 – 1,400 rpm
Max. stirring capacity (H <sub>2</sub> O)	20 l
Power input	Normal operation 230 V: 825 W (EU) / 115 V: 625 W (US) Standby mode: 1.7 W
Temperature range	20 – 350 °C, setting accuracy 1 K
Temperature measurement accuracy	Operation with external temperature measuring sensor Pt1000: ± 0.2 K, plus tolerance Pt1000
Dimensions (w/d/h)	168 x 299 x 106 mm
Speed accuracy	± 2 %
Heating power	800 W at 230 V (EU) 600 W at 115 V (US)
Accuracy temperature setting	± 1 K
External temperature sensor	Pt100 / Pt1000
Temperature accuracy hotplate	-
Residual heat indicator	Yes
Max. Load	25 kg
Plate diameter ø	135 / 145 mm
Plate material	Kera-Disk®

Operating Mode	-
Speed range	-
Overvoltage Category	II
Connection	L+N+PE
Acoustic pressure	< 50 db(A)
Heating control	PID
Installation altitude	up to 2,000 m asl
EMC class	B, Group 1
Protection class IEC 61140	-
Protection class IEC 60529	I
Usable Surface heating plate	145 mm
Degree of pollution	2
Temperature measurement resolution	0,1 K
Rated Voltage	230 V, 50/60 Hz (EU) 115 V, 50/60 Hz (US)