## Ultrasonic homogenizer, Sonopuls HD 3100



SONOPULS homogenisers with integrated amplitude control 10-100 % and actual value display, pulsation, AMPLICHRON®-System, built-in timer, remote controlled. CE-marked, also as medical device compliant to the directive for in-vitro diagnostics 98/79/EG. HD 3100, HD 3200 und HD 3400 with power control, temperatur and energy monitoring, 9 user programs and PC control.

SONOPULS HD 3100, HD 3200 und HD 3400 for research:

Fields of application

- Disruption of cells, bacteria, virus, tissue
- Production of emulsions
- Homogenization of substances
- Sample preparation for HPLC
- Degassing of fluids
- Sample preparation for particle size analysis

## Ultrasonic Homogeniser SONOPULS HD 3100

- For volumes from 1 to 2500 ml.
- High tech for research.
- Time modes: 9 h: 59 min: 59 s, continuous or timed.
- Safety shut down: 9 h: 59 min: 59 s.
- Ready-to-operate basic equipment for volumes from 2 to 50 ml consisting of generator GM 3100, ultrasonic converter UW 3100, stepped standard horn SH 70 G and microtip MS 73, Ø 3 mm.
- Display: graphic / alphanumeric liquid, crystal display of amplitude, pulsation mode, time, energy, **optionally** temperature.
- Menu guided: setting of all values through 'push and turn'.
- 9 user programmes, with software WINPULS<sup>®</sup>: 99.
- Remote control with PC: RS232 (infrared).
- Error diagnosis, automatic storage of the last adjusted values, operating test.
- Remote control: foot switch.

Technical data:

| SONOPULS HD3100 Ultrasonic Homogenizer |   |
|--|---|
| Amplitude Control                      | 10-100%   |
| Power Control                          | Yes (HF Power)  |
| Automatic Amplitude<br>Limiting        | Yes - after preselection of probe   |
| Pulsation                              | ON cycles 0,1 / 0,2 - 600s<br>OFF cycles 0,2 / 0,3 - 600s                                       |
| Time Modes                             | 99min 9s continuous or timed  |
| Display                                | Graphic / alphanumeric LCD for amplitude, pulsation mode, time, energy & optionally temperature |
| Menu Guided                            | Comfortable setting of all values through "push & turn"   |
| Energy Monitoring                      | in kJ   |
| Temperature<br>Monitoring              | Optionally, 0-120°C - temperature sensor necessary, warning signal or alternatively cut-off     |
| User Programs                          | 9, with software WINPULS®:99  |
| Remote Control                         | over RS232 with IR adaptor  |
| PC Software                            | Optional WINPULS for controlling & documentation  |

| Operating Test               | Yes                                       |
|------------------------------|---|
| Error Diagnosis              | Yes                                       |
| HF Generator                 | GM3100                                    |
| Dimensions mm                | 250 x 256 x 154                           |
| Weight kg                    | 2.0                                       |
| Power Supply                 | 230v 50/60Hz (optional selector for 115v) |
| Convertor                    | UW3100                                    |
| Dimensions mm                | Ø / dia 70 x 120                          |
| Weight Kg                    | 1.0                                       |
| Available Titanium<br>Probes | 2,3,6,13                                  |