

Data Sheet



LR 1000 basic Package

The LR 1000 basic is a cost efficient, modular laboratory reactor designed for optimizing chemical reaction processes as well as for mixing, dispersing and homogenization applications at the laboratory scale. The reactor is especially designed for the unique applications requirements that define the cosmetic and pharmaceutical industries. The temperature of the medium can be as high as 120 °C. The temperature of the heating source, which is located at the bottom of the vessel, is controlled accordingly to reach the set temperature inside the medium. A PT 100.5 temperature sensor and the corresponding receptacle LR 1000.61 for the lid are included with this package.

- Digital display for monitoring the speed and temperature
- Expandable for use with the ULTRA-TURRAX® T 25 digital (Accessory)
- Standard joint fittings on the lid: 1x NS 29, 3x NS 14 for flexible adaptation of further equipment
- Vacuum valve included with delivery
- Anchor stirrer with PTFE-scrapers available (Accessory)
- Connections to attach a cooling source to the back of the unit
- Manual adjustable safety circuit
- Integrated safety shutdown when vessel or lid is removed from the base

Accessories: LR 1000.1 Laboratory reactor vessel, LR 1000.11 Anchor stirrer, LR 1000.10 Anchor stirrer with PTFE scrapers, LR 1000.20 Flow breaker / baffle, T 25 digital ULTRA-TURRAX®, LR 1000.41 Shaft receptacle, S 25 KV - 25 F Dispersing element, S 25 KV - 25 G

Technical Data	
Usable volume min. [ml]	500
Usable volume max. [ml]	1000
Working temperature max. [°C]	120
Attainable vacuum [mbar]	25
Viscosity max. [mPas]	100000
Speed range [rpm]	10 - 150
Support rod diameter (with integrated fastening on stand) [mm]	16
Material in contact with medium	AISI 316L, 1.4571, borosilicate glass 3.3, PTFE, PEEK, FKM
Reactor vessel openings (units/standard)	1/NS 29/32, 3/NS 14/23
Dimensions (W x H x D) [mm]	443 x 360 x 295
Weight [kg]	16
Permissible ambient temperature [°C]	5 - 40
Permissible relative moisture [%]	80
Protection class according to DIN EN 60529	IP 21
RS 232 interface	yes
USB interface	yes
Analog output	no
Voltage [V]	230 / 115
Frequency [Hz]	50/60
Power input [W]	1200
Adjustable safety circuit max. [°C]	210
Adjustable safety circuit min. [°C]	50
Connection for ext. temperature sensor	PT 100
Control accuracy with sensor [±K]	0.2
Cooling medium permissible operating pressure [bar]	1
Cooling medium temperature min. [°C]	3
Display for operation with ext. sensor	yes
Heat control	LED
Heat control accuracy [±K]	1
Heat output [W]	1000
Heating temperature max. [°C]	180
Nominal torque [Nm]	3
Permissible ON time [%]	100
Safety cutout	yes
Safety temperature display	LED
Speed control	1 RPM steps
Speed deviation [±rpm]	5
Speed display	7 segment LED
Speed min (adjustable) [rpm]	10
Temperature display	yes
Temperature measurement resolution [K]	0.1
Timer	yes
Timer display	7 segment LED
Type of cooling	flow
	no
Ident. No.	0008040100

Dispersing element, S 25 KV - 18 G
Dispersing element, PT 100.5, LR
1000.61 Sensor receptacle, LR 1000.64
pH Electrode, LR 1000.65 pH Electrode
receptacle, KV 600 cooling water supply,
SC 920 Vacuum pump, labworldsoft®, H
11 Mains cable Euro plug, PCI 8.2 Plug-in
card, PC 2.3 Cable, PC 1.5 Cable