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## LR 1000 control System

/// Data Sheet

The LR 1000 control is a cost efficient, modular laboratory reactor designed to optimize chemical reaction processes as well as for mixing, dispersing and homogenization tasks on a lab scale particularly in the cosmetic and pharmaceutical industry. The system can be adapted quickly and easily to a wide range of applications and specific requirements.

Prominent features are its intuitive menu navigation, integrated pH and temperature sensor connection as well as several interfaces that allow display and storage of process-relevant data on a PC. By using the laboratory software labworldsoft® (accessory) it is possible to even control the reactor via PC and make further settings. In addition, a control valve connection to attach a magnetic valve (accessory) for program-based cooling water control is integrated.



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The medium can be heated either to a fixed maximum temperature of 120 °C or to a set temperature by the heater at the bottom of the vessel. A temperature sensor inside the medium ensures that the set temperature is reached. Both, a PT 100.30 temperature sensor and the corresponding receptacle LR 1000.61 for the lid are included in the delivery.

- Components in contact with medium: stainless steel (ALSI 316 L), FFKM, PTFE, PEEK, borosilicate glass 3.3
- Large easy to read TFT display for easy menu navigation
- Integrated control valve connection to attach a magnetic valve (accessory) for program-based cooling water control
- Integrated weighing function
- Torque trend measurement indicates changes in product viscosity
- Integrated pH sensor connection
- RS 232 and USB interface to operate the unit with the laboratory software labworldsoft
- Standard joint fittings on the lid: 2 x NS 29, 2x NS 14, 2 x GL 14 for flexible adaptation of further equipment
- Expandable for use with the ULTRA-TURRAX® T 25 digital (accessory)
- Vacuum valve included in delivery
- Anchor stirrer with PTFE-scrapers
- 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



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### Technical Data

Useable volume max. [ml]	1000
Useable volume with disperser tool min. [ml]	500
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, FFKM
Reactor vessel openings (units/standard)	2x NS 29/32, 2x NS 14/23