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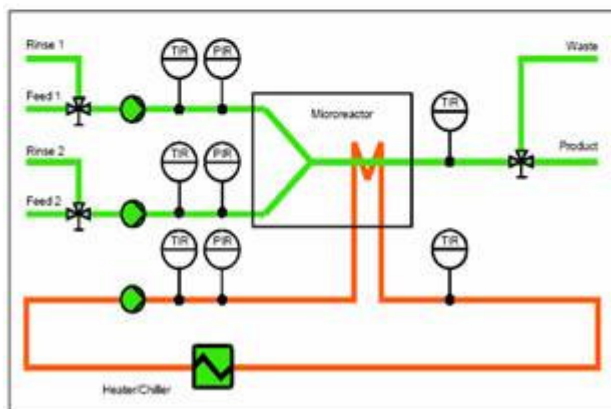
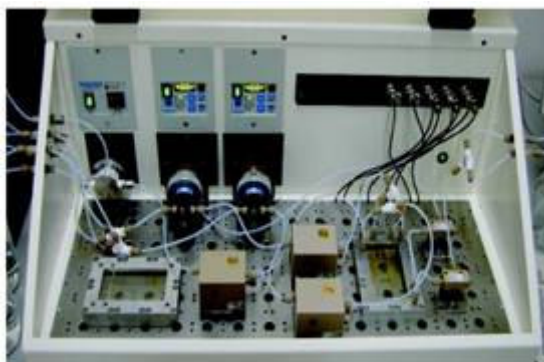
mikroSyn EDU - microreaction system for research and EDUcation

mikroSyn EDU is especially designed for university research and education with a low budget for investments.

The system is designed to run a microreaction modul under controlled conditions.

The system consists of 2 rotary piston pumps and 1 gear pump, valves, pressure and temperature sensors. The temperature of the heating/cooling circuit can be controlled with an optional Huber polystat.

Due to the ease of use, the Syn EDU shows a high flexibility for research tasks. All modules have electrical input/output ports to collect data during operation.



Microreactor (optional):

mikroglas module at your choice

Rotary piston pump (educts):

number of pumps: 2
material of pump head: ceramic
flow rate of educt: 0.1 - 45 ml/min.
max. pressure: 7 bar

Gear pump (heater / chiller):

number of pumps: 1
gear wheels: Rytan
seal: Teflon
flow rate: 6.0 - 560 ml/min.
max. pressure: 5.2 bar

Tubings:

material: PTFE fluoroplastic

Valves:

function: 3 ways
material: PTFE fluoroplastic

Sensors:

temperature: Glass-encapsulated Pt100 elements
pressure: piezoceramic up to 10 bar
housing: PEEK

Heater / chiller (optional):

temperature range: -20°C up to 120°C

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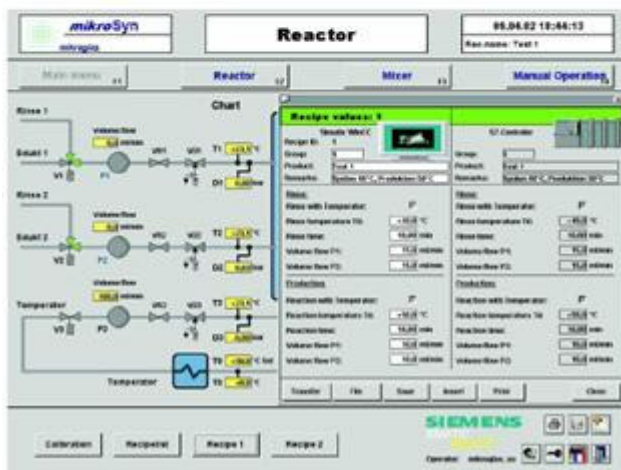
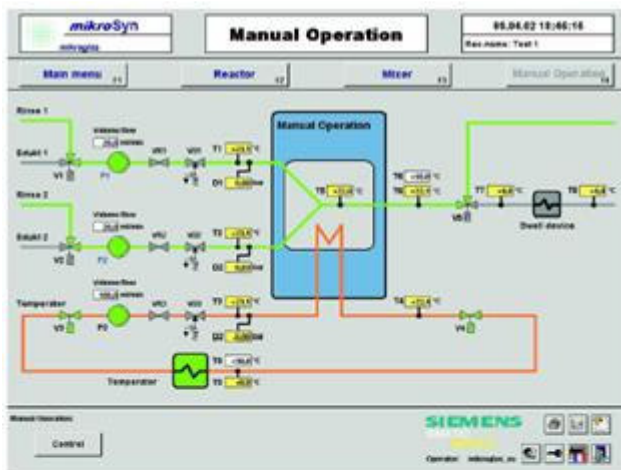
The system consists of 2 rotary pumps, 1 gear pump, valves, pressure and temperature sensors. The heating/cooling circulation is tempered by a Huber polystat. The microreaction system is controlled by a SIMATIC S7-300 Control System by Siemens.

Box:

outer dim.: 700 mm x 700 mm x 330 mm
 weight: approx. 30 kg

Control System:

The control system enables the user to adjust all parameters by a user interface. When running in manual mode all settings can be made by free choice. It is also possible to store the parameters in a file. This can be loaded, edited and executed to generate different programs. All measured data are available online and can also be printed or exported to a file.



Microfluidic component:

mikroglas module at your choice

Rotary pump (educts):

number of pumps: 2
 material of pump head: ceramic
 flow rate of educt: 0.1 - 45 ml/min.
 max. pressure: 7 bar

Gear pump (heater / chiller):

number of pumps: 1
 gear wheels: Ryton
 seal: Teflon
 flow rate: 6.0 - 560 ml/min.
 Max. pressure: 5.2 bar

Valves:

function: 3 ways, nonreturn, pressure relief
 material: PEEK
 sealing material: FFKM

Sensors:

temperature: Glass-encapsulated Pt100 elements
 pressure: piezoceramic up to 10 bar
 housing: PEEK

Heater / chiller:

temperature range: -20°C up to 120°C