Fermentation Technology

Liquid Handling & Robotics

Services & Didactics

Contact

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Gmix™
High precision gas mixing station
» Best possible accuracy and reproducibility
» Precise process control
» No inaccurate multiplex operation
» Regulates each gas at every single input separately
» Useable for stand-alone and remote operation
» Compact design

Re-Engineering, Services & Maintenance
Your fermenter control is outdated, you run your processes manually and want to have more time for your core capabilities? As a competent partner for automation we can offer you a wide range of solutions. Please talk to us!

From planning to training
» Planning and projecting
» Plant automation
» Reconstruction and modernisation
» Order programming
» User training

Gas Analytics & Mixing

HiSense™
Precision gas analytics for biotechnology
» 1 to 5 measurement channels for 1 to 4 fermenters
» High-resolution measurement
» Real OUR-, CER- and RQ-measurement

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SciBot™
Customised laboratory robots
» Cell culture in microtitre plates
» Flexible liquid handling platform
» Additional sensor and actuating systems can be integrated
» Easy integration into up- and downstream applications
» Simple programming via hteMaster™ software
» Optional:
  » Tool changer
  » Miscellaneous tools
  » Sterilisable (24 h / 90 °C)

AUTOSAR™
Automatic sample collector, four different models with sample bottles from 1.5 ml to 2,000 ml are available
» Bottling of samples
» Submission of educts
» Quenching, mixing and diluting
» Liquid handling
» Optional:
  » Integrated magnetic stirrer
  » Cooling incubator
  » Heater
  » Freely programmable methods with LiquiMaster™ software

RAMOS®
Bioprocess optimisation in shake flasks and microtitre plates
» Exhaust gas analysis OTR, CTR, RQ
» Differentiation between process-based and biological effects
» An alternative to more expensive stirred tank bioreactor experiments
» Equivalent cultivation conditions compared to standard shake flasks
» Virtual non-stop processing through extremely short setup times
» Establishes optimal screening conditions

CULTILUX™
The CultLux™ exposure measurement module for the RAMOS®, allows an individual exposure of every flask.

For the cultivation of plant cells or rather generally of phototrophic organisms, light energy is an essential requirement for semi-syntheses (light and dark reaction)
The exposure time as well as intensity, can be varied according to exposure profiles.

accelerate your bioprocess development
OmniFerm®-mini
Flexible parallel fermenter system for R&D applications
- High automation level
- Extensive sensor system
- Online analytics-based regulation possible
- Solid-state temperature control without heat carrier
- Optional:
  - Gravimetric dosing
  - Gas analytics & mixing
  - Rotary oscillating single-use square bottles

RAMOS®-fbd
The RAMOS® fed-batch system allows for performing controlled fed-batch experiments in shake flasks.
The feeding can be achieved by creating freely combinable feed profiles with a combination of constant, linear or exponential profiles or feed rates.

LASmanager®
The industrial standard for automation of laboratory plants, miniplants and pilot plants
- Easy handling
- Modular design
- Highly precise, e.g. temperature measurement with 1 mK resolution
- Extremely adaptable, compact and robust
- Comfortable NAMUR connection technology
- Scaleable from 4 up to 3,040 inputs/outputs
- Also available as a fully compatible top hat rail system (DC-Manager™).

LASbox®
The LabBox® is your entry into the digital laboratory. You can easily automate experiments and processes and gain time for more runs:
- Connect any sensors and devices
- Freely configure the user interface
- Define automated experiments
- Document or export experiment data
- Unbeatable price-performance

SyrDos™
High-precision dosing of small and smallest quantities in the high-pressure range
- Large pressure and volume range
- High chemical resistance
- Continuous, high-precision dosing
- Syringe body exchangeable
- Components connected without adhesive
- Different conveying types
- Feed rates from 1.56 μl/min to 156 ml/min
- Wetted parts made of Borosilicate glass, depending on the valve PTFE/PCTFE or Al₂O₃

LASVision®
Automation software, fully integrated and intuitive to operate
Offers a maximum of automation with a minimum of engineering effort
From definition of tests to archiving in the laboratory database

EasyBatch™
Spreadsheet-based recipe control
- Intuitive operation
- More efficient operation
- Automatic testing
- Modification of parameters during run time
- GLP- and GMP-compliant operation

LASDos®
Solid dosers for dosing, portioning and filling
- For powder, granules, crystals, chips etc.
- Chemically resistant
- For mounting on an NS29 socket or as a desktop unit
- Optional:
  - Stand-alone version
  - Vacuum- and pressure-resistant design

The industrial standard for automation of laboratory plants, miniplants and pilot plants.