

cPAT

Compact controller for advanced gas reactions



Designed for precision, flexibility and ease of use, the cPAT delivers full control of gas reactions in a minimal footprint.

Understanding Gas Reactions

- High reproducibility and productivity
- Production-like operation to enable confident scale-up and scale-down
- Intuitive, user-friendly interface for efficient daily work
- Unlock deeper reaction insights with all critical process parameters controlled by one unified system

cPAT at a Glance

Compact control for precise gas reactions

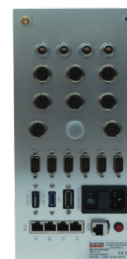


Intuitive Touch Interface

Easy and fast operation with a clear, user-friendly interface - no training required

All Interfaces Included

cPAT back panel with all required connections

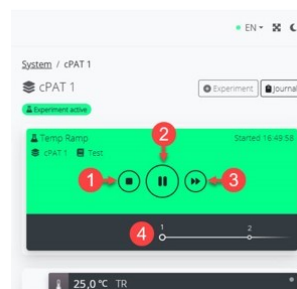


Flexible Positioning

Compact design with flexible mounting options for any lab setup

Recipe-Based Operation

Standardized workflows ensure reproducible results and consistent process execution

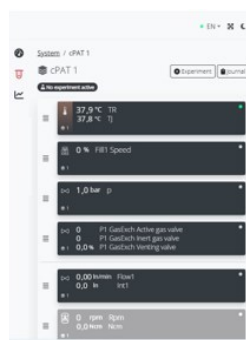


Remote Access

Control and monitor experiments via tablet or smartphone

Manual Control When Needed

Direct access to critical parameters such as temperature



The cPAT system combines controller, gas panel and autoclave into a compact solution for precise, reproducible gas reaction experiments - from R&D to scale-up.

Why cPAT?

- Compact footprint
- Reproducible results
- Space saving
- Usable by everyone from day one

cPAT - Key Advantages

Designed for precision

- One controller - one autoclave: complete control of a single autoclave including gas panel
- Compact, space-saving design for seamless lab integration with flexible mounting and positioning options
- Flexible standalone operation system
- Intuitive user interface with recipe-based control
- Powerful toolset to simulate and control complex reaction processes
- SOP-based operation ensures reproducibility and compliance
- Automatic and consistent data logging for full traceability
- Integrated calibration tools safeguard quality-critical signals
- Comprehensive alarm and event recording for efficient service and support

Functionality

- Reactor or jacket based temperature control
- Stirrer control
- Gas exchange (inert and active)
- Precise gas dosage
- Pressure measurement and monitoring
- Continuous data acquisition
- Recipe-based process control
- One liquid dosage (optional)
- Integrated touch screen interface
- Extendable with external monitor

cPAT - Product Specification

In-/Outputs	Types (number) Measurement	4x Pt-100, 6 x RS-232 interface, 8x analog input/output 0-10V or 8x analog input/output 4...20mA or 8x digital input/output 24VDC, 4x Ethernet RJ45, 2x USB, 1x Displayport TR, TJ, pressure, gas flow, stirrer speed, stirrer torque, optional pump speed
Dosages	Number / type of dosage Dosage Dosage rate Gas exchange Pressure measurement	Max. 1 liquid dosage per cPAT, 1 gas panel, 1 MFC 1 MFC, 1 Gas panel depending on MFC active and inert over cPAT controller
Control Unit	Electronic Controlling	Built-in electronics, additional interface hardware required (Autoclave, Gas panel, MFC) 7" Touch Display and or mouse with external monitor
Techn. Specification	Ambient temperature Power input Power input / unit Dimensions and weight	10 °C...35 °C 90 - 250VAC, 5 A, 50/60 Hz, single phase Single phase, 600 VA 280(height) x 130 (width) x 330 (depth) mm, approx. 6 kg.