Further Controllers of the uni System Family

uniCORE

Full-graphic 2,8” LCD-Display with color backlight

Flexible in- and outputs according to module configuration

uniMIND

Full-graphic 4.3” color TFT display

Flexible inputs and outputs according to module configuration

uniBRAIN

Full-graphic 7” color TFT display

Flexible inputs and outputs according to module configuration

Code-free. Engineering-free. IoT-ready by default.

Drag-and-Drop Configuration without functional limitations

The control logic can be fully implemented via the integrated no-code platform – from simple applications to complex automation tasks.

Alternatively, a classic programming environment is available.

Direct Connection of Native Sensors/Actuators

Native sensors and actuators can be connected directly to the control system without additional interface components.

Integrated sensor amplifiers and power outputs enable signal conditioning and load control within the device, minimizing external components, wiring complexity and total system costs.

IIoT & Remote Capable

Integrated LAN and WLAN interfaces with native support for OPC UA, MQTT and REST.

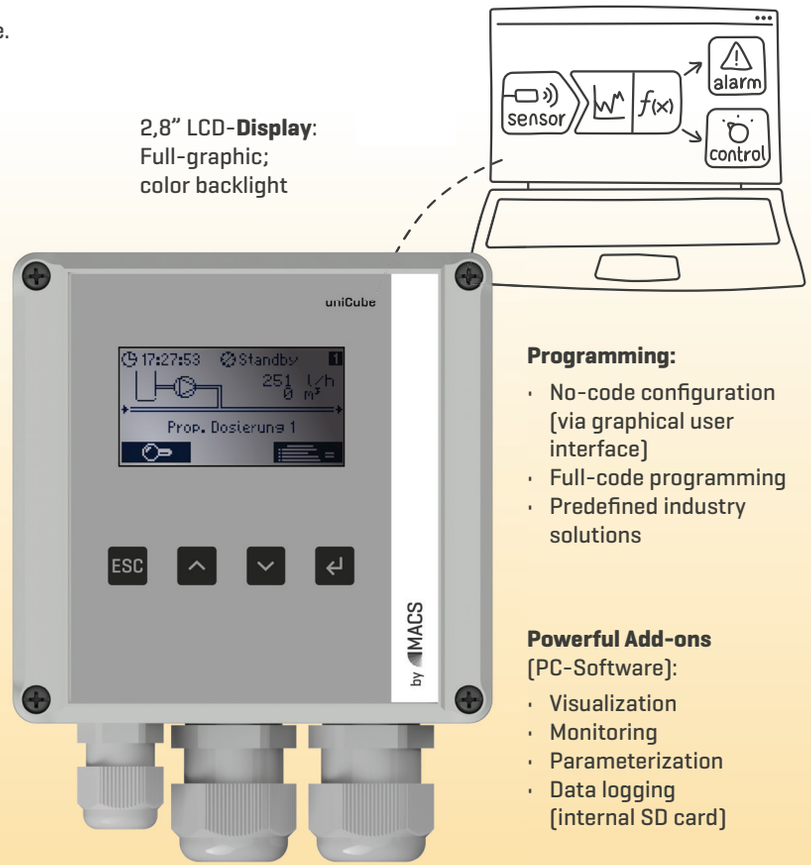
Enables direct connection to IIoT platforms, cloud services and visualization systems, as well as secure remote access for monitoring, parameterization and remote control – without additional gateways.

www.imacs-gmbh.de/uni-systems/

uniCUBE

uniCUBE is the most compact controller in our uni system family. It combines all essential control functions in a minimal enclosure: **powerful and flexible.**

2,8” LCD-**Display**: Full-graphic; color backlight



Programming:

- No-code configuration (via graphical user interface)
- Full-code programming
- Predefined industry solutions

Powerful Add-ons (PC-Software):

- Visualization
- Monitoring
- Parameterization
- Data logging (internal SD card)

Connumication:

- USB
- LAN, WLAN, Bluetooth
- Modbus RTU/TCP, MQTT, OPC UA, REST-API, Web server

Inputs: 2 digital, 2 high-speed pulse/digital, 1 multi, 1 conductivity/resistance/capacitance, 1 temperature

Outputs: 2 relays (non-isolated), 2 relays (potential-free), 1 multi (analog/digital)

More Efficient Systems Through Modular Architecture

Your control unit is developed based on our modular system architecture – a coordinated platform of hardware and software.

This enables maximum flexibility with minimal development time and reduced integration effort.

Reduced Development Time

Your individual system is built on an existing modular architecture. Functions and assemblies are combined and extended in a targeted manner – instead of being completely redeveloped.

Reduced Integration Effort

Through the modular architecture, hardware, firmware and communication are already system-aligned.

Separate coordination between electronics, software and interfaces is eliminated.

Energy-Optimized Hardware Design

Our modules are consistently designed for minimal power dissipation: In idle state, power consumption typically amounts to approx. **50 mW per I/O module – up to 80% lower** than comparable systems.

The reduced power dissipation lowers energy consumption and therefore operating costs, while increasing operational reliability over the entire service life.

Add-ons & Tools inclusive

Through our model-based development approach, accompanying engineering utilities are automatically generated from the same system description as the control application itself.

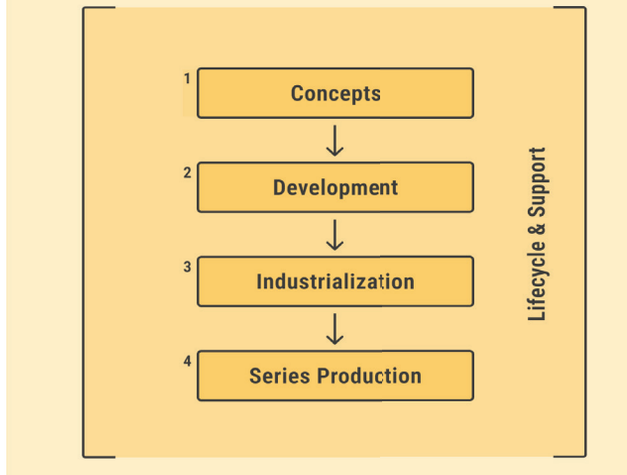
Simulation, visualization, diagnostics, data management and remote access are not optional add-ons, but integral components of every control unit – without separate development, licensing models or additional integration effort.

1. **Simulation & Validation**
   Automatically generated offline simulation with identical system behavior – even without connected hardware. Suitable for development, testing, presentation and training.
2. **Visualization & Parameterization**
   Live monitoring via serial, USB, LAN or WLAN. Structured parameterization and storage of all settings as transferable parameter files.
3. **Diagnostics & Calibration**
   Direct manipulation and display of inputs and outputs for hardware testing. Analog inputs and outputs can be calibrated using reference measurements.
4. **Data Management**
   Continuous logging of measurement values, system status and I/O states to µSD card. CSV import/export of parameter and process data as well as binary import/export of calibration data.
5. **Remote & IIoT**
   LAN-/WLAN-based remote visualization and control in online operation. Direct connection to IIoT and cloud systems via OPC UA, MQTT and REST – without additional gateways.

Individual Embedded Control Solutions

Since 1993, IMACS has been developing and manufacturing customized embedded systems for industrial applications – from the initial concept to series production.

We combine hardware development, software engineering and production under one roof.



IMACS Integrated Development Process

Based on more than 30 years of experience, we support your project throughout the entire product lifecycle – efficiently and scalable.

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All details on **Add-ons & Tools:**

Learn more about our **scope of services:**