SMARTcontrol
Industrial Control Systems

Individual Industrial Control Systems
from the SMARTcontrol modular system building kit.
We offer you tailored industrial control systems that can be constructed on a modular basis using our SMARTcontrol modular system building kit. Within this, we focus on open standards and norms in the automation sector. SMARTcontrol creates a universal solution from the control system to visualization to the capture of process data and connection to your ERP system.

THE BEST THINGS IN LIFE ARE EASY

Is the control unit the linchpin of your equipment? Are you looking for a robust control system that can undergo remote maintenance, is easy to operate and provides all the necessary information “at a glance”? Do you have special environmental conditions, such as in the food industry? Are you also looking for an individual and premium industrial control unit that is also cost-effective? Then you’ve come to the right place!

With the aid of the SMARTcontrol modular system building kit and our many years of experience in the area of individual control systems, you will complete the journey from an idea to a market-ready product very remarkably quickly. We take on your design ideas and operating philosophy and implement them in a way that saves space, as well as being cost-effective and future-proof.
AREAS OF APPLICATION

The SMARTcontrol control system has been developed for operating small and mid-size industrial facilities, for example in food engineering (cooking, baking and curing), climate chambers (climatization, maturing and drying) and process engineering (heat treatment, synthesis).

A SMARTcontrol control system is attractive due to its:
- High reliability and availability
- Extreme robustness against environmental influences
- Extensive options for self- and remote diagnostics
- Individuality
- Made in Germany

YOUR BENEFIT

Benefit from a fantastic price/performance ratio. Your customers enjoy a high degree of function and process reliability. We will be more than happy to tailor your control system to your requirements, even for small quantities. You can remain flexible and independent at all times, whilst protecting your expertise.

Your time costs money – access our expert product development department for your "turn-key" solution! Or make use of our finished control systems.

We support you during the entire process: Specification, development and activation – just get in touch.

RELIEABLE, INDIVIDUAL AND COST-EFFECTIVE

Gain the edge over your competition with a control system that is ideally tailored to your requirements and which reflects your business’ unique image. At the same time, you will have a control system at an optimal cost, which is more cost-effective than a solution made of individual components even for mid-level quantities.

Our tried and tested hardware and software modules of the SMARTcontrol modular system building kit guarantee reliable operation.
SMARTcontrol I/O MODULES

For your individual I/O module, we use input/output modules with self-diagnosis from the SMARTcontrol modular system building kit:
- Connections for temperature sensors such as PT100 (3-conductor), NiCrNi etc.
- Digital inputs 24 V short-circuit proof / 230 V, visual status display
- Digital outputs 24 V short-circuit proof / 230 V, visual status display
- Analog inputs and outputs 0 – 20 mA
- Compact form factor – easy installation due to DIN rail mounting
- Environmental temperature range 0 … 70°C
- Power supply 24 V

SMARTcontrol Touch

CONTROL PANELS

The SMARTcontrol Touch control panels in various sizes are developed for operation in the roughest environments (protection type IP69K). The control panels in highly robust stainless steel casing with safety glass feature state-of-the-art projective capacitive touch technology. Through the combination of display and direct entry, this enables particularly user-friendly control concepts.

SMARTcontrol Log

SYSTEM SOFTWARE

SMARTcontrol Log is a piece of professional database software, which provides you with an overview of the status and all the important process variables for all the connected equipment at any time.

The process data is displayed in clear diagrams, and filtering and sorting criteria to ensure that you only see the results that are of interest to you. SMARTcontrol Log ensures that your quality assurance process has full and complete documentation of the production data.
INDIVIDUALIZATION

The SMARTcontrol modular system building kit makes it possible to tailor all the components exactly to your requirements. You decide whether you simply want to provide a standard control system with your branding or whether you want to perform up to 100% individualization according to your specification. How individual do you want your control system to be? Decide for yourself!

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<tr>
<th>PRODUCT NAME</th>
<th>DESCRIPTION</th>
<th>INDIVIDUALIZATION</th>
<th>YOUR BENEFIT</th>
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<tr>
<td>SMARTcontrol Touch</td>
<td>Control panels with excellent design in glass and stainless steel technology</td>
<td>Individual customer appearance/OEM product</td>
<td>Visually adapted to your company’s branding</td>
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<td></td>
<td>Projective capacitive touch technology</td>
<td>Individual operating interface</td>
<td>User interface optimally aligned with your processes</td>
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<td>Windows®-embedded 7</td>
<td>Design with glass imprint</td>
<td>Optimized for your ambient conditions</td>
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<td></td>
<td>Robust design and IP69K Protection class (front), IP65 (rear)</td>
<td>Need-based IP protection classes</td>
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<td></td>
<td>Horizontal/vertical installation possible</td>
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<tr>
<td>SMARTcontrol control system</td>
<td>CODESYS Soft SPS with Linux</td>
<td>SPS programs</td>
<td>Separate program libraries in CODESYS</td>
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<td>CANopen and Ethernet</td>
<td>Data logging</td>
<td>Knowledge protection</td>
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<td>Local buffering of the process data</td>
<td>Service functions</td>
<td>Extended control system functionality, adapted to your performance requirements</td>
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<tr>
<td>SMARTcontrol I/O module</td>
<td>Standard in/output driver (digital in/out, 0…20 mA, PT100 and much more)</td>
<td>Type and number of inputs and outputs</td>
<td>Economically and technically ideal in function and form factor</td>
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<td>CANopen</td>
<td>Self-diagnosis and error memory</td>
<td>Extendable with CANopen modules on a flexible basis</td>
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<td>Field bus</td>
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<tr>
<td>SMARTcontrol log</td>
<td>Professional database software for recording process variables</td>
<td>Individual operating interface</td>
<td>Visually adapted to your company’s branding</td>
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<td>Editor for process operations and parameters</td>
<td>Adapted symbol library</td>
<td>Operation aligned with your processes</td>
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<td>Diagrams and analyses</td>
<td>Application-specific analyses</td>
<td>Relevant information in the analyses</td>
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<td>Adapted duration of storage</td>
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SMART IN OVATION GmbH, with headquarters in Stuttgart, Germany, has been a supplier of innovative control system and software products, and associated services for automotive and industrial clients for more than 30 years.

The **Control Solutions** operational division produces premium industrial and positioning control systems based on the **SMARTcontrol modular system building kit**; these systems can also be tailored to the client’s individual requests. **SMARTcontrol systems** can be freely programmed with the leading SPS programming system CODESYS. All the relevant process data is registered and visualized using the **SMARTcontrol Log** PC software. Our control systems feature ergonomic design, very straightforward operation and the highest levels of reliability. They are used all over the world in the areas of food-related technology and mechanical engineering. **SMARTcontrol Industrial PCs** and **SMARTcontrol Touch control panels** for use in rough environments complete the product portfolio.

Our **New Energy** operational division offers control electronics for off-grid solar street lights with the **Solar LED Controller SLC**. With the **PVchecker** product, and the associated Internet portal, a monitoring solution that is independent of both manufacturer and inverter is offered at string level for photo-voltaic equipment. The product portfolio is complemented by innovative Smart Grid solutions.

The **Flash Solutions** operational division offers solutions, that enable software updates for electronic products in all stages of the product cycle – from development to production to service. The **Flash Boot Loader ADLATUS®** is an embedded software solution that includes all functions for updating software. This includes, among others, functions such as access protection, integrity checks and data compression. The conformity tester **FlashCedere®** is used for the provision of automated quality assurance.

The **Com Solutions** operational division develops test solutions for communication logs. **FlashCedere®** is a PC based conformity tester for all common bus systems such as FlexRay, Ethernet, CAN, LIN and K-Line. Different product specifications enable automated testing of the communications behavior of automotive control devices and industrial control systems. **FlashCedere®** is used by market leaders all over the world for quality assurance of embedded software.