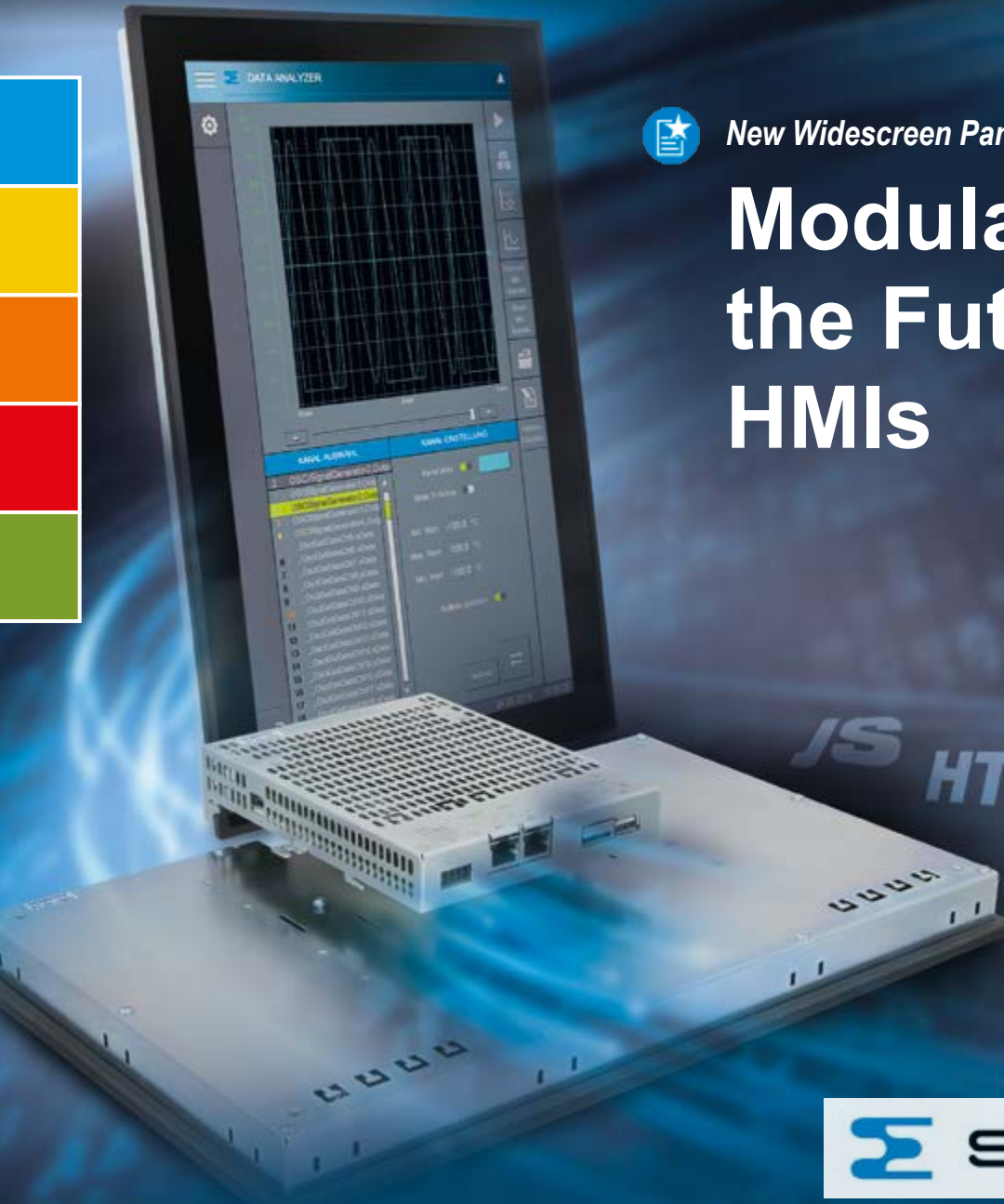




# Zeitschrift für Automatisierungstechnik



*New Widescreen Panels with Multi-touch*

## Modular into the Future of HMIs



**SIGMATEK**

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New Widescreen Panels with Multi-touch

# Modular into the Future of HMIs

*With the ETT ModularWide panel series from SIGMATEK and HTML5 visualization, machine concepts can be designed flexibly and future oriented. The modularly constructed multi-touch HMIs are perfectly adaptable to display and performance demands and give machines and systems a modern look. With suitability for complex HTML5 visualizations, the widescreen panels make smart and comfortable operating concepts possible.*

**E**specially when it comes to the operation and visualization of machines and systems, there is currently a lot happening. Multi-touch gesture control and complex visualization requests pose new demands on the human/machine interface. "Machine manufacturers have recognized on-site process visualization as an essential feature, as well as their company's calling card", Ronald Roither is convinced. "They know that with quality optics and logical operating concepts, they can distinguish themselves from their market competitors", continues the SIGMATEK Product Manager for HMI, CPU and IPC.

## User Experience in Focus

The Salzburg automation provider supports its customers with a broad selection of HMI products. This also includes various options for individually designing operating and visualization units. "We see a continually increasing importance of user ergonomics", explains Roither. "This leads to an increasingly complex design of user interfaces and changes the requirement for panel hardware." SIGMATEK has addressed this development with the ETT ModularWide series. The modern panels are available exclusively with multi-touch. "Multi-touch gesture control has become widely preferred, since it allows intuitive and clear operating concepts", continues Ronald Roither. Equipped with a capacitive glass multi-touch screen, the HMIs can also be operated with thin gloves.



► Modern optics and flexible design: the multi-touch panels of the ETT ModularWide series from SIGMATEK.

Images: Sigmatek GmbH & Co. KG



## New Perspectives in 16:9

The ETT ModularWide panels are currently available with screen diagonals of 10.1 - 12.1 - 15.6 - 18.5 and 21.5 inches. Since it allows developers to rearrange operating elements in comparison to 4:3 format, the 16:9 widescreen format is increasingly popular in machine manufacturing. "Widescreen displays provide the option to place process data and several menus side by side. That function is often used", according to the Product Manager. "In some operating concepts, on the other hand, the placement of various fields one below the other is an advantage. Especially if the application is also graphically displayed. The HMIs from our ModularWide series can be used in landscape or portrait format."

## Adaptability through Modularity

The motivation for developing the ETT ModularWide series was the rising demand for special customer-specific models. This was combined with the realization that the continuous development of the machines over their product lifespan meant the requirements of the operating panel could change. When beginning to design a machine, the machine builder cannot know exactly how much power will actually be needed later. Over the life cycle of the machine, the application is also continually further developed and with increased functionality, naturally requires more resources. With machine operation, this particularly applies for elaborately designed HTML5 visualizations. The ETT series' modular design allows SIGMATEK customers to adapt to changing power requirements. "The required power is not always proportional to the screen size", clarifies Roither.

"That is why in this series, different interface modules and screen sizes can be combined as desired." Depending on their needs, customers can choose between two processor modules and an HMI-Link interface. The EDGE-2 module is equipped with a dual-core processor (2x 800 MHz). If higher performance is required, the x86 module with Intel Celeron dual-core processor (up to 2.7 GHz and 2 GB RAM) is the right choice. With the HMI-Link module, ETT ModularWide HMIs can be located up to 100 m from the control PC. The fanless panels are equipped with a Linux-based operating system and designed to be maintenance-free.

- ▶ The required power is not always proportional to the screen size: With the ETT ModularWide series, multi-touch displays and interface modules can be flexibly combined.

At the same time, they provide connections for Ethernet and USB, the x86 module additionally for DisplayPort. In combination with the compact control and I/O system S-DIAS, the operating panels form an efficient, high-performance solution for adaptive production machines and systems 4.0. As do all SIGMATEK HMIs with processors, the new multi-touch panels also speak OPC UA and can therefore communicate with controls or third-party industrial PCs in a machine network.

## Attractive Optics, Simple Installation

Around the glass front pane of the ETT widescreen panel, a thin aluminum frame provides improved stability. Within this 4 mm wide aluminum frame, integrated LEDs serve as the status display. The front of the HMIs have IP65 protection. All modules can be easily installed and removed with simple tools, even with the display units installed. In addition to the existing panels for surface mounting into a rectangular cut-out or control cabinet installation, swing-arm models (complete IP65 protection) will also be available soon.

## Web-based Visualization

As in all SIGMATEK systems, the HMI tool LASAL SCREEN can be used to create object-oriented applications. This visualization software supports developers with extensive libraries and modern "Add-Ons" for many specific and complex machine functions. With a few mouse clicks for example, a menu-guided delta robot control with corresponding visualization can be created. The development time for ergonomic and descriptive operator interfaces of machines and systems are shortened significantly. Since the increasing complexity of machines is accompanied with an increase of relevant information, simplicity is the goal in visualization design. Various screen designs are included for different sized display units. With the web-based LASAL VISUDe-signer, SIGMATEK provides



a modern, state of the art tool for creating hardware-independent HTML5 visualizations (CSS3 and JavaScript). During development, focus was placed on resource utilization to allow fluid operating concepts. "HTML5 visualizations simplify the implementation of complex operator interfaces with the highest flexibility and openness", underscored Roither. "With the modular panels from the ETT ModularWide series, machine manufacturers can provide visualization solutions scaled as needed." The VISUDesigner and LASAL SCREEN also take advantage of object orientation to create visualizations. The graphic elements, as well as the underlying functions can also be reused and modified as desired. To implement these flexibly, web visualization is increasingly finding its way into the production hall.

► Whether in vertical or portrait format – the ETT ModularWide panels with multi-touch screen and thin aluminum frame cut a good figure on any machine.

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## “Individual HMI Concepts”

### How are the new generation of HMI devices from the ETT multi-touch series different?

Ronald Roither: The new device series consists of modern HMI panels in 16:9 format with a glass multi-touch screen protected by a thin aluminum frame and can be used in portrait or landscape format. They are designed as modular toolkits made of different display units and interface modules, which allow CPU performance and screen size to be combined as desired.

### What is the benefit of machine designs that separate the display unit and interface module?

Roither: The modular construction of the new panels enables our customers to respond comprehensively to their customers, without needing customer-specific products themselves. This

#### Ronald Roither, Sigmatek



» *The modular design of the new panels allows machine builders to implement individual concepts with different display sizes, even for small quantities.*

allows machine builders to implement fully customer-specific concepts with various display sizes, even in small lot sizes.

### Do the panels themselves provide options for personalization?

Roither: The ETT ModularWide panels offer various options for personalization, such as different frame colors on request. An option to expand the keypads, RFID tags for safe user log-in or key switches is also provided.

### Are the HMI panels from the ETT ModularWide series only compatible with SIG-MATEK controls?

Roither: Not at all. As all SIGMATEK HMIs with processors, the new HMI panels also speak OPC UA and can therefore be used with third-party controls or industrial PCs.