

# Control panel se@vis HMI 10

The success of modern production facilities today is based on being able to transmit the largest amount of information between the most diverse points in the shortest time possible.

Exchanging information rapidly enables the operator to react to process developments immediately, both on the scene and from a remote control point.

The SAACKE se@vis HMI10 control panel combines the advantages of easy-to-follow control and visualisation of the burner operations with vast communications options in one compact, inexpensive system powered by high-speed microelectronics.

The se@vis HMI10 is an especially robust module designed for heavy-duty performance. It complies with the strict requirements of the major marine classification societies. It is noteworthy for its tough resistance to extreme temperatures and to fluctuations in humidity and temperature, as well as increased EMC and vibration resistance.

The large-format TFT colour display updates the operator constantly on the current status of the boiler plant. An industrial standard resistive touchscreen makes it easy to set, operate and keep track of each of the plant and system parameters. Mouse/keyboard operation is optional.

In the event of a failure, the integrated first-up trouble message system selects the cause and displays a protocol in clear text with the date and time. At the same time, the operator has access to the complete message history. An extra-bright LED imbedded in the front foil also draws attention to a failure from a considerable distance.

The se@vis HMI10 provides access to all of the control circuits related to the boiler plant. Control functions for steam pressure and hot water pressure are part of the package that also includes feedwater, furnace pressure, upstream pressure and viscosity control. Software for burner or boiler sequence control and control of the pumps is included.

Archives on the important burner data are protected from power outages in the RAM. The integrated webserver function enables operation of the plant via intranet and internet and provides access to the TeleSupport & TeleService network of SAACKE Service GmbH.

Apart from the Ethernet interface that comes with the basic module, the se@vis HMI10 can also be coupled to the most important industrial BUS systems. CAN and MODBUS support is standard. Other bus communications such as PROFIBUS are also possible.

The flexible bus architecture permits the addition of I/Os and communication with additional systems.



## Functional characteristics

- meets the requirements of the major marine classification societies
- visualizes the entire plant on a TFT colour display with operation via an integrated touchscreen
- has an integrated controller function for up to 32 PID control circuits
- offers simple, menu-operated adjustment of the systems parameters (setpoints, curves, timing etc.)
- offers password protection for individual operations
- switches the burners, pumps and fans on and off at the touch of a finger
- provides convenient remote control and supervision via intranet / internet through an integrated webserver
- includes an integrated first-up trouble message system
- draws attention to trouble messages from a distance with an extra-bright LED
- acknowledges messages for interaction
- registers and saves process data such as burner output, flame intensity, flue gas temperature etc. in archives
- displays trend charts for selected readings
- displays service interval reminders
- uses Modbus master/slave protocol
- supports CANopen and standard CAN
- can be provided with PROFIBUS
- is configured for SAACKE TeleSupport & Tele-Service

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## Technical Data

### Display

Display: TFT display with 640\*480 pixels  
Size: 10.4", 8-bit colour depth  
Touchscreen: resistive, 4-wire  
Status Status LED: 1 LED red, extra-bright

### Environment / Installation

Supply voltage: 24VDC (+30% / -20%)  
Ambient temperature: 0 – 70 °C  
Type of installation: control cabinet door  
Dimensions (w x h x d): 313 mm x 250 mm x 85 mm  
Colour: front: grey, casing: stainless steel  
Protection class: front IP 65  
installation IP 20

### Inputs

Binary inputs: 4 24VDC inputs

### Outputs

Binary outputs: 4 24 VDC high-side switches with short-circuit protection  
0.5 A ( max. 1.0 A in all )

### Interfaces

RS232: 2 interfaces COM 1 / COM 3  
RS485: 1 interface COM 2  
CAN bus: 2 CAN bus interfaces CAN1, CAN2  
Ethernet: 1 10Base T  
Keyboard: 1 PS2 connection  
Mouse: 1 PS2 connection

### System architecture

Microcontroller: Motorola PowerPC MPC823e  
Clock frequency: 50 MHz  
Memory structure: 4 MB to 32 MB on-board Flash  
32 MB to 128 MB Compact Flash  
16 MB to 128 MB SDRAM  
32 kB FRAM  
Real-time clock: RTC with lithium battery

Combustion and Energy Systems



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