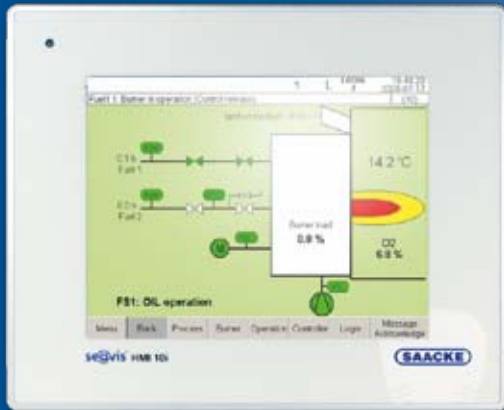


## se@vis<sup>®</sup> pro

Burner Management System



# Outstanding performance for complex systems

When it comes to controlling burners and system peripherals comprehensively and conveniently, **se@vis<sup>®</sup> pro** is totally unrivalled. This controller offers extensive interfaces and visualizes all the processes relevant to the firing system. In the basic version it already controls 8 channels, features 10 integrated controllers and is perfect for complex applications – such as the combustion of pulverized fuels, the mixed simultaneous firing of alternative fuels, or the changing between different fuels without the need to switch off the firing system.

Despite the diversity, the system remains astonishingly simple. Its basic components are the failsafe FSC unit, the large HMI touch screen, and up to 12 failsafe servomotors. The failsafe components are connected via Safe Ethernet – this makes **se@vis<sup>®</sup> pro** safe, uncomplicated, and universally expandable. The core modules are stored on a compact assembly plate and, as such, enable particularly rapid commissioning.

In operation, **se@vis<sup>®</sup> pro** displays the signals from all the connected components on its large touch screen and controls the actuators with a resolution of 2000 steps particularly precisely. The simple parametrization allows the problem-free use of 3 fuels. Or the simultaneous firing of two fuels. Or fuel change without load dropping, water injection in heavy oil firing operation mode, and an intelligent warming up program for all heat generators.

The data compiled during operation can be displayed conveniently on the display and analyzed using trend indicators. Comprehensive display of the initial value fault messages means trouble-

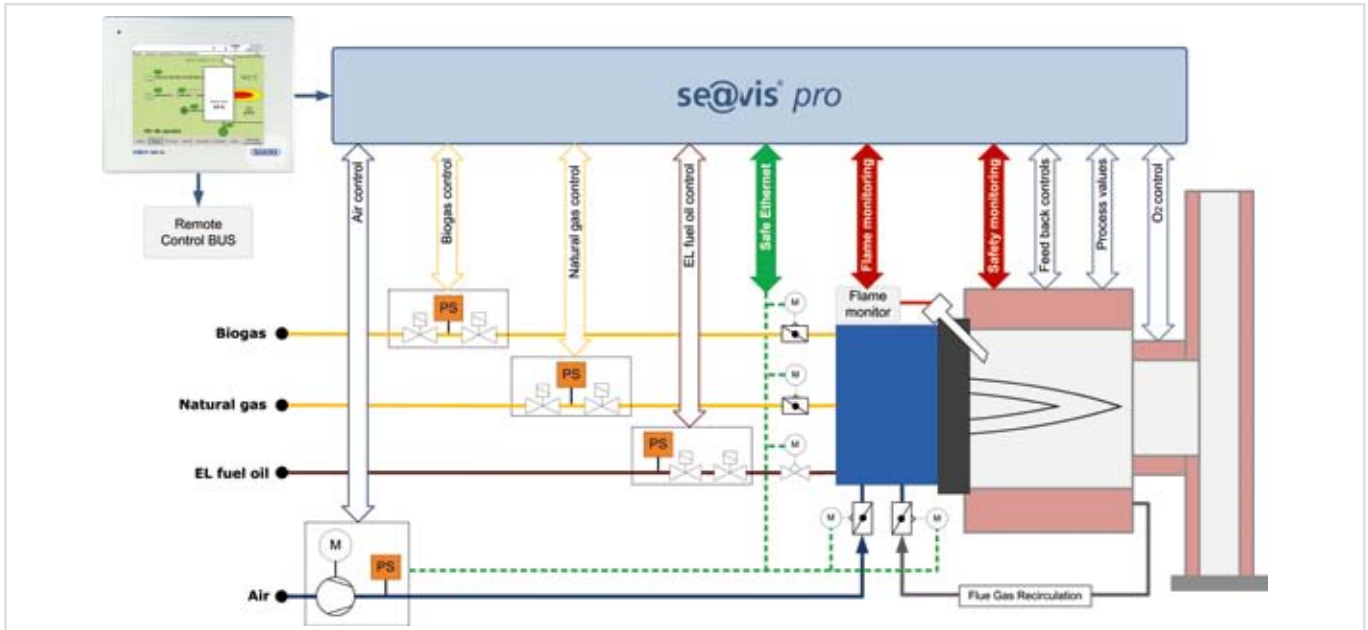
shooting in the system is also quick and easy. In addition, the basic version can already be integrated into the process control and communication system via bus coupling and remote controlled.

This combination of versatility, reliability, and ease of use makes **se@vis<sup>®</sup> pro** totally unique – and very reassuring: after all, the system is certified with SIL 3 in accordance with IEC 61508 and, in addition to the certificates from numerous maritime classification societies, it has also been awarded the approval of the Australian Gas Association.

**For further information, please visit:**  
**[www.saacke.com](http://www.saacke.com)**

### se@vis<sup>®</sup> pro

- Suitable for all SAACKE burners
- Automatic firing sequence controller for 3 fuels
- Allows simultaneous firing of alternative fuels (e.g., biogas, byproducts, or pulverized fuels)
- Electronic fuel / air ratio control with up to 8 channels in 8 operating modes
- 10" touch screen for simple, intuitive operation
- 10 integrated controllers
- Certified safety with SIL 3 according to IEC 61508
- Certified by LR, GL, DNV, RINA, ABS, PRS



## Certificates / Test regulations:

- EC Gas Appliances Directive (2009/142/EC)
- EC Pressure Equipment Directive (97/23/EC)
- SIL 3 according to IEC 61508
- DIN EN 230
- DIN EN 298
- DIN EN 1643
- AS 4625
- DIN EN 746-2
- DIN EN 50156-1
- DIN EN 12067-2
- DIN EN 12952-8
- DIN EN 12953-7
- TRD 412
- Lloyd's Register
- Germanischer Lloyd
- Det Norske Veritas
- Registro Italiano Navale
- American Bureau of Shipping
- Polski Rejestr Statków

se@vis compact	se@vis pro	
•	•	Automatic firing sequence controller
•	•	Electronic fuel/air ratio control
•	•	Chinese and Cyrillic characters
•	•	BUS coupling and remote control
•	•	Integrated O <sub>2</sub> controller
•	•	Integrated capacity controller
•	•	Integrated valve proving system
•	•	Integrated initial value fault message system
•	•	Capacity limitation in cold boiler
•	•	Adjustable ignition periods and purge periods
•	•	Start without prepurging
•	•	Integrated cooling programs
•	•	Operation and commissioning via touch screen
•	•	Simple, rapid testing by experts
•	•	Flue-gas recirculation control
•	•	Integrated blow-out logic for steam pressure atomizer burners
•	•	Water injection in heavy oil firing operation mode (option)

se@vis compact	se@vis pro	
•	-	3.5" color touch screen
-	•	10.4" color touch screen
•	•	Change of operation mode without "Burner off"
-	•	Fuel change via pilot burner
-	•	Fuel change without load dropping
-	•	Additional fuel and staged simultaneous firing
-	•	Variable simultaneous firing with 2 or 3 fuels
-	•	Coal dust firing and biogas firing
-	•	Display of process values for e.g. pressure and temperature
-	•	Control of oil/feedwater/circulation pumps
-	•	Control of flue gas/eco/boiler damper
2	3	Number of fuels
4	8	Number of operating modes
5	8	Number of fuel/air channels with 2000 digits
2	10	Number of integrated controllers
1	2	Number of additional correction inputs (e.g. heat value)
3	21	Number of I/O modules