HEINZMANN®
Automation

SeaMACS
Marine Automation System

- ✔ Integrated vessel control
- ✔ Distributed processing
- ✔ Systems for merchant marine, offshore and navy
- ✔ Advanced trending and analysis
- ✔ Full redundancy

Monitoring & Control

SEAMACS AUTOMATION SYSTEM

The SeaMACS Automation System includes alarm, monitoring, trending, and control functions.

SeaMACS has built-in interfaces to most controls producers, which ensures easy connectivity to other vendors of e.g. propulsion control and power management systems, for both retrofits and new installations.

SeaMACS ensures safe operation of engines and other machinery/equipment on board the vessel. It also presents alarms and status information in an intuitive manner, to ensure reliable and safe operation of the vessel.

The SeaMACS Automation System is a reliable, flexible and scalable solution for most types of vessels.

Redundant architecture - reliable

The redundant architecture of the system is designed to allow minimum downtime of the system by providing optimum reliability. Any downtime can in worst case induce costs and damage to equipment, therefore the ability to have redundancy both at the top level and the lower level is a standard part of the system.

Customisable architecture - flexible

Let the system grow with needs and requirements. As the needs and requirements change the re-designable architecture of the system means that the system can grow in the same direction.

Networking architecture – scalable

In order to meet future requirements for SCADA networks the system is Ethernet-based. Ethernet is capable of handling large amounts of data, it is transparent and it is scalable. The SeaMACS is built around this principle and the system can easily be expanded or modified for future upgrades or add-ons without having to modify any of the existing system hardware or software.

All system requirements are changing over time; therefore it is a great benefit for users that the system is scalable to any application size.

Included drivers for communication

Over 140 device drivers are included in the software which allows the system to connect to over 300 different existing models of I/O devices.

Web client

The web client system allows connection to a live system within a web browser. For LAN connected users it gives read/write access to the current system information.

As an example a system manager can access the system and monitor the current information from any computer on the LAN without having to install software or perform extensive downloads.

With a secure VPN connection it is also possible to connect to the system from a remote location via internet.

High system security integrated into all interface elements

By defining the different users of the system it is possible to define which parts of the system the different users need access to. This can then be applied to all interface elements of the system.

Alarm management

The system gives an overview of the following:
➡ All current active alarms
➡ A summary of a predefined number of the last active alarms
➡ An alarm history log that stores all alarm conditions and alarm transitions for a predefined period

Trend and analysis tools

With the systems combined trend and alarm view it is possible to perform analysis of trend and alarms together. This means that for a given time span it is possible to display trend tags as well as alarm tags in a single window. By doing this the operator can analyse trends and alarms together in a single window.

Trend management

Trends can be set to collect and monitor data. Depending on the requirements the data can either be collected periodically or when a specific situation occurs.

The system can be set up to store a given set of trend tags, or all tags on the ship can be trended and kept for a given time period. As an example it is possible to go back in time and perform analysis of situations and incidents that occurred back in time.

Report management

Reports can be created based on the status of the system or when special conditions occur in the system. They can be run on request, at set times or when events occur and they can either be printed or saved to disk.

As an example daily reports for fuel consumptions, tank levels etc. can be implemented in the system.

Online changes

If required the system can be set up to accept online system changes. In example the addition of new tags or alarms can be performed while the system is running.
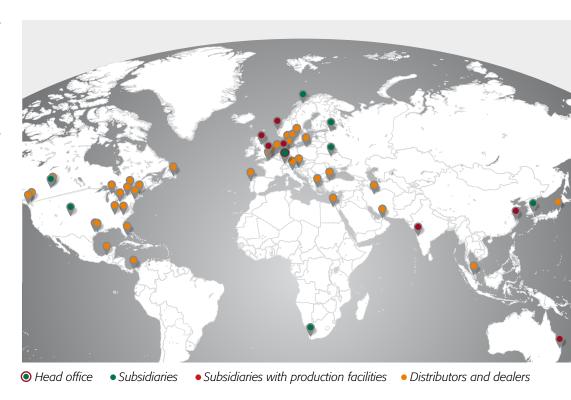
Marine Engine Control & Monitoring
Marine Propulsion & Auxiliary Engines

Integrated Marine Automation Systems
Merchant & Commercial Marine, Offshore & Navy Vessels

Diesel Engine Management
Digital Governors
Electrical Actuators

Bridge Control Consoles
Alarm Extension Systems
Propulsion Control Systems
Power Management
Fuel & Energy Efficiency Management
Alarm Monitoring & Control Systems
Engine Control Room Consoles
Deadman Systems
Local Monitoring & Control

HEINZMANN Group

Quality & Precision since 1897

The Group started in 1897 with Heinzmann GmbH & Co. KG, and now includes HEINZMANN UK, HEINZMANN China, HEINZMANN Korea, HEINZMANN India, HEINZMANN Australia, HEINZMANN AUTOMATION, REGULATEURS EUROPA, and CPK Automotive as member companies.

The HEINZMANN Group operates numerous global subsidiaries, including eight production sites and an international distributor network.

Our product portfolio comprises engine management system solutions, as well as exhaust gas aftertreatment solutions, for industrial combustion engines and turbines. It also encompasses automation systems, primarily for the shipping industry.

● *Head office*   ● *Subsidiaries*   ● *Subsidiaries with production facilities*   ● *Distributors and dealers*

HEINZMANN AUTOMATION – Specialist for Marine Automation

We provide complete turnkey solutions for electronics, automation and control systems for merchant marine and navy vessels. With more than 30 years' experience as experts within the field of marine automation, we serve our customers by finding the best solution to meet their demands. We supply our own products, products from our partners, as well as a combination of both, with the overall target of optimizing the outcome of each specific project.

We have rebuilt automation systems on more than 60 vessels with great success. It is our highly skilled engineers who mainly drive this success, and they are ready to look into whatever challenges you might have.

Heinzmann Automation AS
Kongensgt. 18
N-8514 Narvik
Norway
Phone.: +47 769 610 80
Email: post@heinzmann.no

Heinzmann Automation AS
Storebotn 8a
N-5309 KLEPPESTØ
Phone.: +47 55 26 56 86
Email: post@heinzmann.no

Head Office

Heinzmann GmbH & Co. KG
Am Haselbach 1
D-79677 Schönau
Germany
Phone: +49 7673 8208 0
info@heinzmann.de
www.heinzmann.com

HEINZMANN® Automation

Further representations: www.heinzmann.com/representations

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