

### We support you

When our customers experience challenges we are always ready to help, while our systems are very dependable we know things do go wrong. If called upon, we pride ourselves on our high level of customer support on a worldwide basis. Our systems are designed, assembled and configured in house so full engineering support is only a phone call away.

### Enhance your system

Should your vessel's monitoring requirements change eSHIP system configuration is flexible and expandable through additional Intelligent Modules. Spare channels can be designed into your installation. Additional HMI screens can be accommodated if further alarm repeater stations are required.

### Lifetime partnership

Radamec Alarm and Monitoring Systems have been in service for many years on a wide range of vessels from coasters, dredgers and patrol craft to luxury yachts. Radamec have supplied engine control systems to the RNLI for many years and are proud to supply propulsion control systems for their Tamar class life boats, so you can be assured of a quality system from a quality company. Radamec Control Systems Ltd is an ISO 9001:2008 certified company and our marine associations go back over 70 years.

### Our experience

Radamec has been extensively involved in upgrades and refit work covering Alarm and Monitoring Systems and Propulsion Controls for yachts, commercial, naval and Coastguard vessels. Radamec specialise in carrying out this class of work in both home and export markets, and can upgrade Bridge and MCR installations to state of the art. Recent upgrades include Alarm and Monitoring System and Propulsion Control Systems for the Malaysian Coastguard, and working with the MOD on the retrofit of Telegraph Systems for HMS Ocean. These installations have extended the life of these vessels for many more years.

### eSHIP Specification

**Power Supply:** 24Vdc Nominal

**Current Consumption (@24Vdc):**

Screens: 0.5 - 1.5A (per display)

Data Access Points: 2.15A(Max.), 1.25A Avg.

**Up to 64 Modules per a Data Access Point.**

(e.g. 50 Analogues and 100 digitals)

**Input options:** All Industry standards including,

Current: 0-20mA, 4-20mA (Others on request)

Voltage: 0-10V, 0-5V

Temperature: PT100, Thermocouple (Others on request)

Digital: NC or NO inputs

**Output Options:** Analogue -Voltage: 0-10V, +/-10V

Current: 4-20, 0-20mA

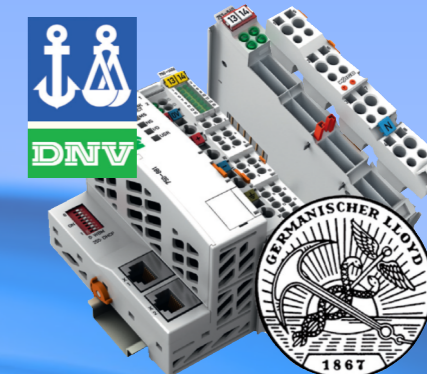
Digital - 24Vdc (0.5A or 2A)

Other digital outputs via relay

Non standard Inputs and Outputs may also be supported, please ask us for details.

## ALARM AND MONITORING SYSTEM

The eSHIP Alarm and Monitoring System provides a dependable and rugged solution to your alarm and monitoring needs. Modular, expandable and customised to your requirements.



### Touch-screen HMI with Custom Graphics

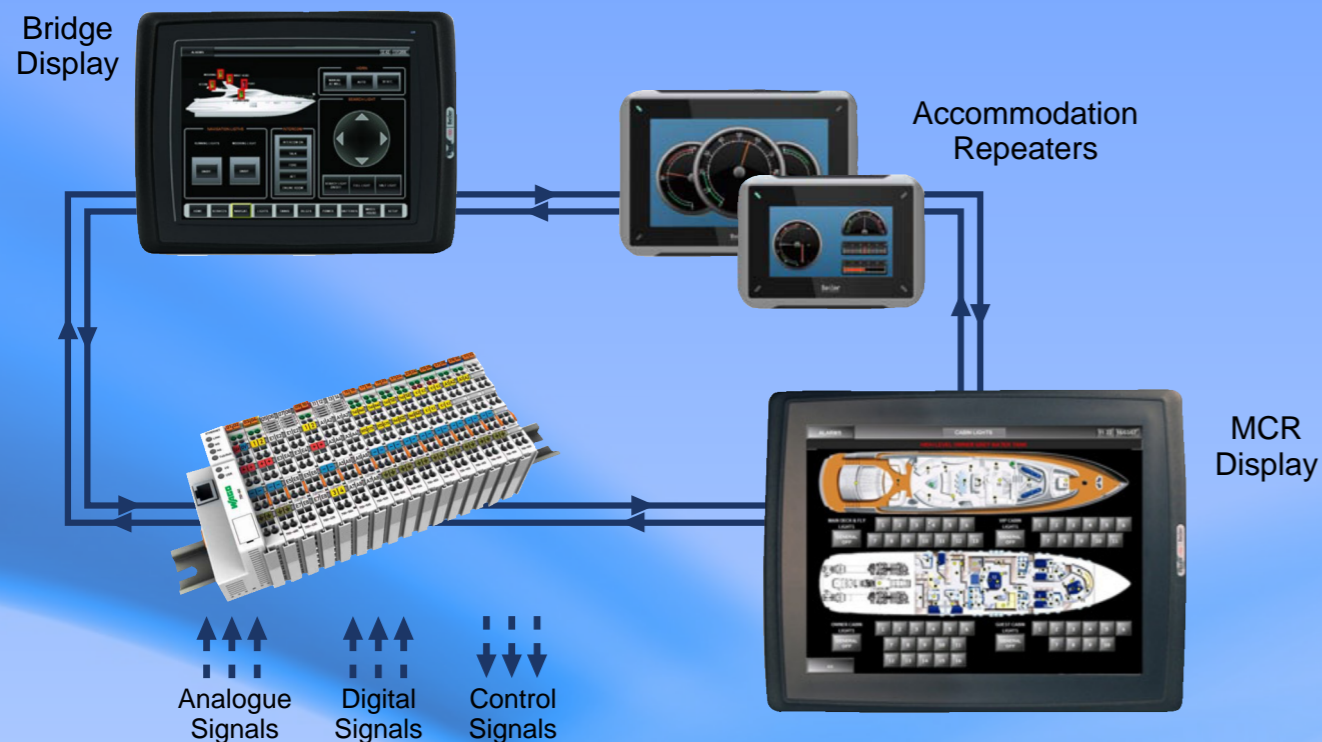
The HMI screens are available in a wide array of sizes to meet your space requirements. Graphic screens are customised to your application and separate pages can easily categorise your data. A dedicated alarm list keeps track of events past and present.

### Intelligent Modular I/O Platform

The intelligent I/O platform has PLC functionality coupled with high density system inputs and outputs. The modular interconnect caters for a wide variety of data signal types including industry standard 4-20mA, Pt100, thermocouple, and 0-10V.

The Radamec fifth generation Alarm and Monitoring System eSHIP is designed to provide a dependable and rugged system to solve all your monitoring and alarm needs on both new and refit vessels. For refit situations the system offers the modern sophistication of touch-screen HMI displays which can easily fit into the space traditionally occupied by several multiple-channel alarm panels. Repeater stations in strategic areas such as the chief engineers cabin also use HMI screens (typically 4 or 7 inch) to ensure that important information is relayed and relevant alarms get immediate attention.





**Installation**

Installation is extremely efficient with system components connected to each other with power and ethernet data cables. Digital communication ensures total reliability and signal integrity. The Intelligent Modular Platform uses Wago sprung terminals for fast signal-wire termination which has proven in-field reliability.

**Touch-screen HMI technology**

Touch-screen HMIs combined with their graphical layout make for an intuitive interface to access all aspects of alarm and monitoring as well as control where required. Several pages of graphical information can be accessed through clear on-screen icons. The fanless and embedded technology design increases system reliability with no moving parts to fail.

**Data storage, logging and transfer**

To cover classification requirements all events are logged to solid state memory, which has no moving parts to fail and also all control inputs and requests along with the outcome, if that is being monitored. e.g. The system could show that steaming navigation lights were requested at 18:00pm and that all the bulbs were shown to be functioning at that time and continuously until 8:00am. Data can easily be transferred off the ship for analysis or backup through use of USB memory sticks or flash drives.

**Call us now for prices for your vessel**  
Tel: +44 (0)1635 40528

**Graphical Indication**

Graphic screens show alarm and monitoring information intuitively, e.g. illustrating the outline shape of your vessel or the flow of your systems. This allows easy locating of problems and speeds up the deployment of relevant personnel. We can design layouts with single or multiple pages to suit any type of vessel and can incorporate your brand if required. Colours can be matched to that of surrounding equipment or blended seamlessly with a Superyacht style.



**Control**

eShip gives you not only industry leading Alarm and Monitoring but can also control any aspect of your vessel that you choose. Typically the cost of integrating control into eShip is much less than even something as simple as normal switch panels and wiring. Indeed substantial savings can be made in wiring, for example rather than running control cables between the engine room and bridge the eShip system will simply use its existing dual redundant Ethernet cables to send the control signals. Systems are designed and configured to your wishes, then given factory acceptance test sign off by the relevant classification society (e.g. Lloyds) before being fitted to your vessel. Lockouts can be programmed into the system to stop undesired operations being carried out depending on pre-set criteria.



**Navigation Lights**

For example it is ideal for not only controlling the navigation lights on your vessel but it can also monitor them to prove that they are actually working and give an early indication of any failures of lights. Even unusual applications such as lowering bridge structures can be accommodated with sensors determining which sets of Nav lights should be used given the position of the bridge.

**Bilge pumps & Ballast pumps**

Typically eShip is used to monitor multiple bilges around a vessel and it makes sense to then use it to also control bilge pumps and ballast pumps as required.

