Industry & Applications

MARINE

Marex OS - Features & Benefits

Overview

Marex OS

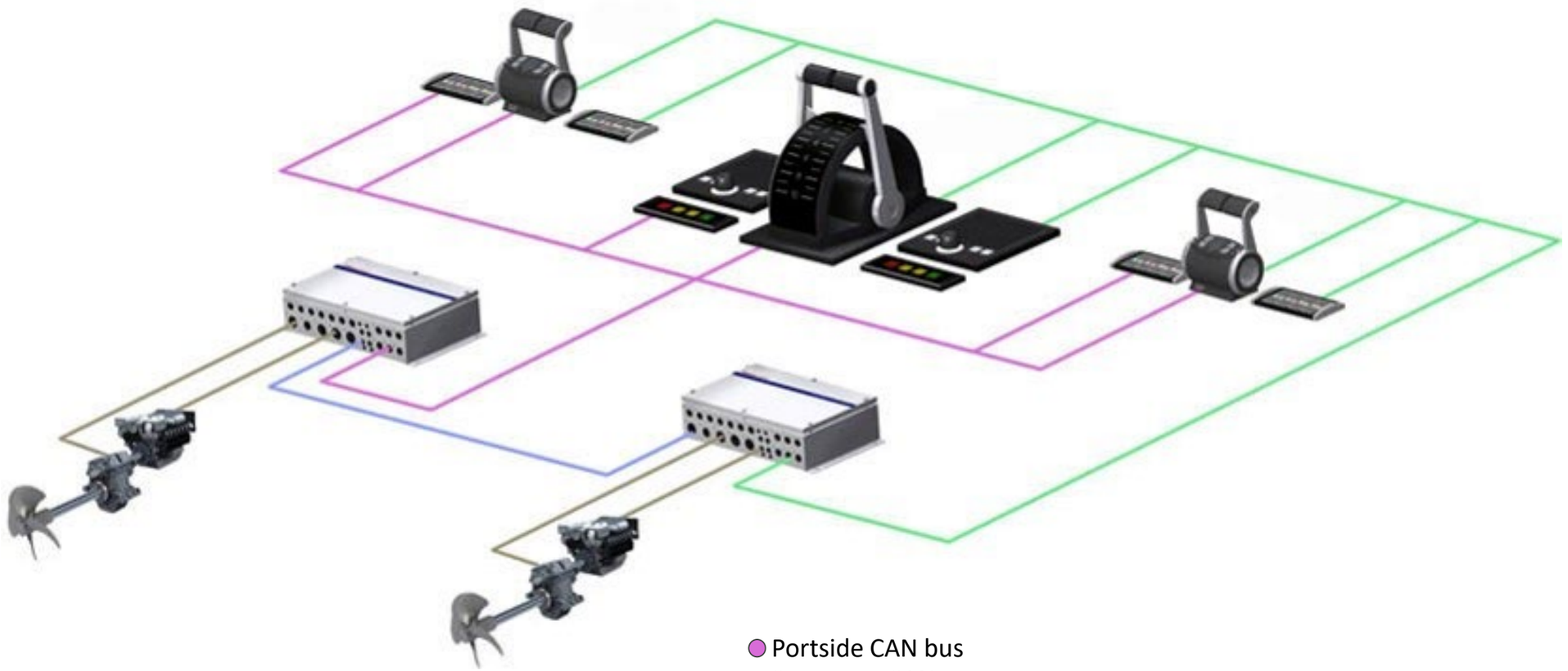
Marex OS is a modular electronic control system for marine diesel engines and transmissions.

- For ships with conventional shaft line applications, other applications on request.
- For fixed or controllable pitch propeller systems
- Suitable also for hybrid applications
- Standard systems or customized solutions
- Up to 6 control stations
- Marex OS components are approved by all major classification societies.
- Factory Acceptance Test on request

Applications

- Passenger vessels
- Ferries
- Yachts
- Work boats
- Authority vessels
- Multi-purpose vessels

Marex OS



- Portside CAN bus
- Starboard CAN bus
- CAN bus cross communication
- Analog and digital interface to external devices

Example Setup

Components

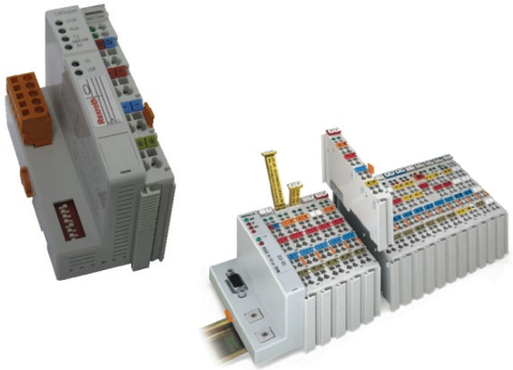
Marex OS

Component	Function	Examples
Control heads	Installed at up to 6 control stations on board, the control heads are the user interface of Marex OS. They are used to control the engine speed and transmission direction or the propeller pitch of a marine propulsion system. ▪ Various designs for fixed or controllable pitch propellers ▪ Single, twin or triple levers ▪ Synchronizing function ▪ Optional lever follow-up function ▪ For in- and outdoor stations	

Marex OS

Component	Function	Examples
Operating and indicating modules	Operating and indicating modules enable the operation of additional functions. ▪ Different designs available ▪ Freely configurable or with a standard configuration	

Marex OS

Component	Function	Examples
Marine Propulsion Controller (MPC)	The Marine Propulsion Controller is the control unit of Marex OS. It processes the commands transmitted from the control head and controls the setting of engines, transmission or propeller pitch. ▪ Available with housing (Cabinet version) or without housing (Modular version)	
Electric Accessories	Extension modules are integrated to transfer and process further signals within extensive system applications.	

Marex OS

Component	Function	Examples
Control cabinets	Custom-designed control cabinets accommodate the control units, extension modules and further components – a compact and safe installation.	
Cables & Adapters	Shielded CANbus cables connect the components safely and guarantee a perfect transmission of data and electric power. Various lengths are available.	

Marex OS

Component	Function	Examples
Actuators	Actuators can be integrated for the mechanical setting of engine speed, transmission direction or propeller pitch. ▪ Strokes of 70 or 120 mm	
Software	The ParaEdit software is a comfortable tool to adjust parameters via a laptop.	

Benefits

User experience

- **Design**
  The design of our control heads follows ergonomic rules. Customers value the good feel and attractive look. Function and design are the result of our long experience, high quality standards, extensive testing and the implementation of our customers‘ feedback.

- **Reliability**
  Our customers trust in the reliability of Marex OS. The system is designed to withstand the conditions at sea and meets all requirements for a safe operation of the ship. Marex OS is approved by all major classification societies.

- **Safety**
  A clear and intuitive operating concept helps to prevent errors. Extensive indication and alert functions keep the operator informed about the status anytime.

Flexibility

- **Modularity:**

  Marex OS features a modular system architecture for standard and customized applications. It offers an extensive range of components which can be combined to your perfect control solution.

- **Connectivity:**

  Marex OS provides an open interface which can be connected to all common marine engines and transmissions. Diesel/electric applications have been realized. Interfaces to DP systems, autopilot or VDR can be provided.

- **Functionality:**

  The Marex OS software offers a wide range of parameters which permit to adapt the system perfectly to the requirements regarding the size of application, functions and propulsion efficiency (speed curves, reversing maneuvers, control of shaft brake, engine stall protection). From standard systems to extensive customized control solutions.

Support & Service

- **Consultancy**

  We provide expert advice and support during project engineering, sales, commissioning and service.

- **Classification**

  Marex OS is designed to meet the requirements of all major classification societies. Our engineers are experienced in questions of classification approval. Factory Acceptance Tests can be organized in our company if necessary.

- **Service & refit**

  We offer continuous worldwide support over the full operation life of a vessel. A service network is ready to assist our customers worldwide. Most spare parts are available for 10 years minimum.

- **Training**

  We offer a full range of training courses for our OEM customers and partners. The trainings can be organized online, in our factory or locally.

Network

The Marex sales & service network - Always by your side

Marine Production Sites

AVENTICS™

Marine Sales & Service Network

Application Examples

Application Example

MY „Aviva“

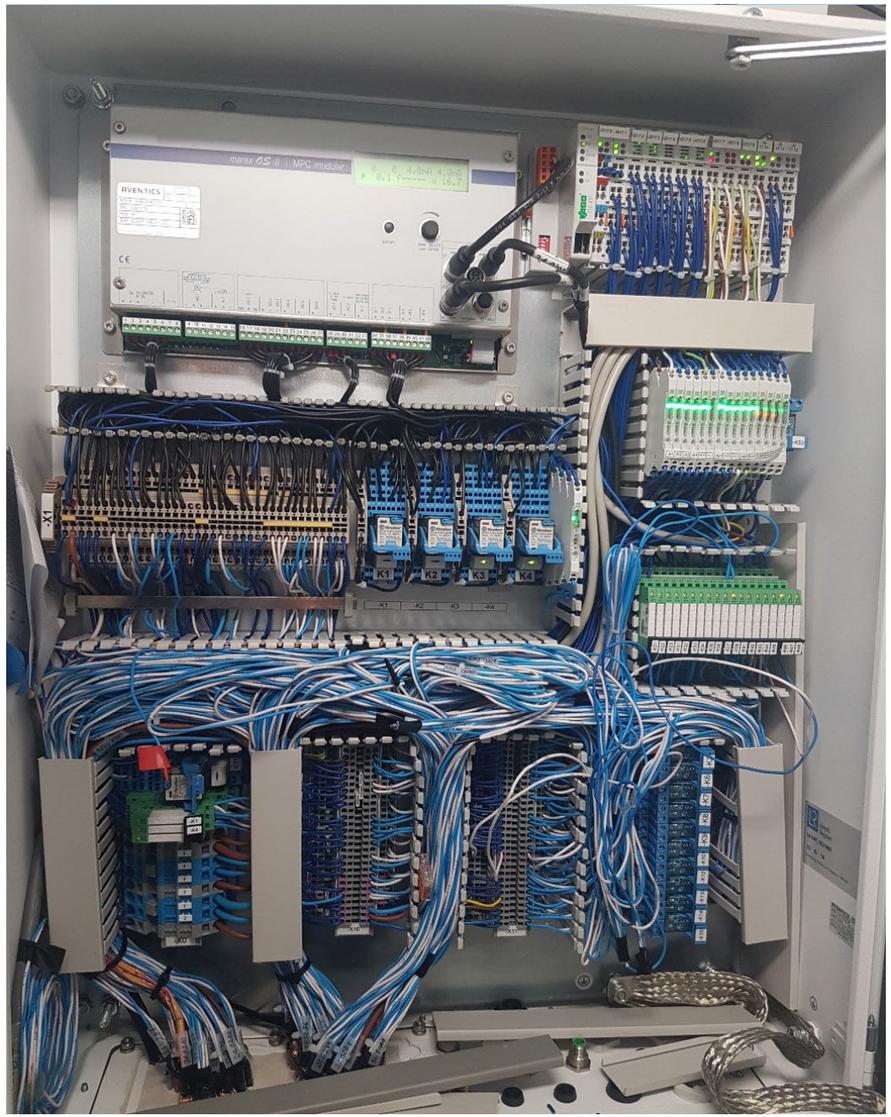
Application example

M/Y Aviva

- 98.4 m, 5,000 gross tons
- Hybrid application
- Built at Abeking & Rasmussen shipyard, Germany

Aventics project 336 102 243 0

- 3 control stations w/ control head type 230 and displays Lever follow-up
- Engine room station with backup panel and displays



Application example

German pilot boat **"Explorer"**

Features:
SWASH Design
(Small Waterplane Area Single Hull)

20.5 x 12.3 m
Built at Abeking & Rasmussen shipyard, Germany

Hybrid application:
Siemens EcoProp
+ MTU diesel engine

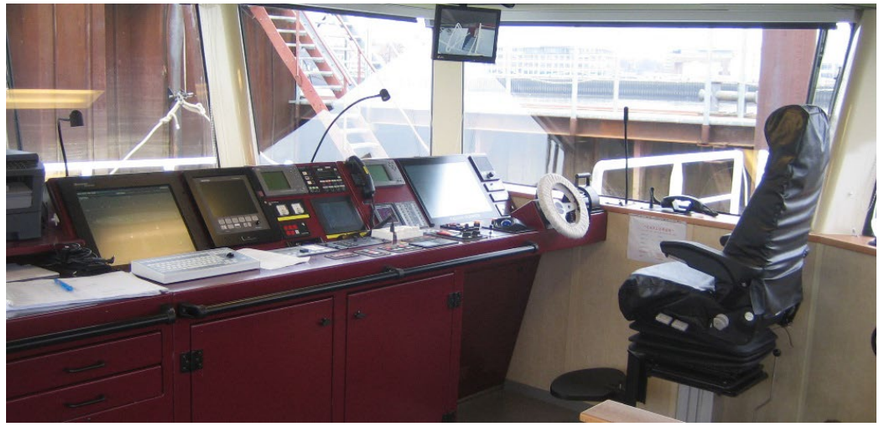
Application example

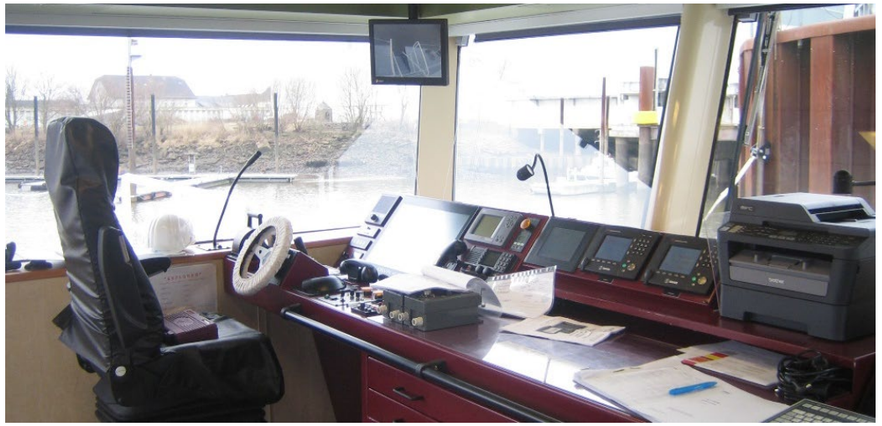
Pilot Boat "Explorer"

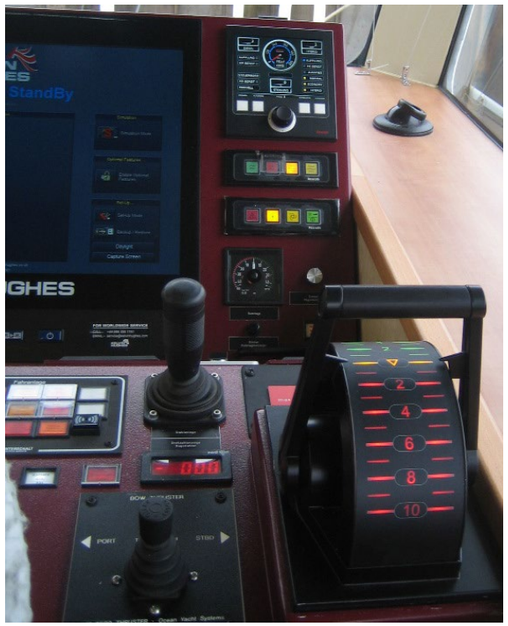
Aventics project 336 101 618 0
Control stations:
2 w/ control head type 230 and displays

Engine room:

Marex OS control unit for CPP + extension control cabinet.







Application example

Features:

- Catamaran ferry
- Length: 38 m
- Passengers: 300
- Built by Shiptec, CH

Diesel-hybrid application w/ Siemens Eco-Prop

3 control stations w/ control head type 230

Shuttle ferry "Bürgerstock", Luzern, Switzerland

Fluid Control & Pneumatics Industries & Applications

MARINE

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