

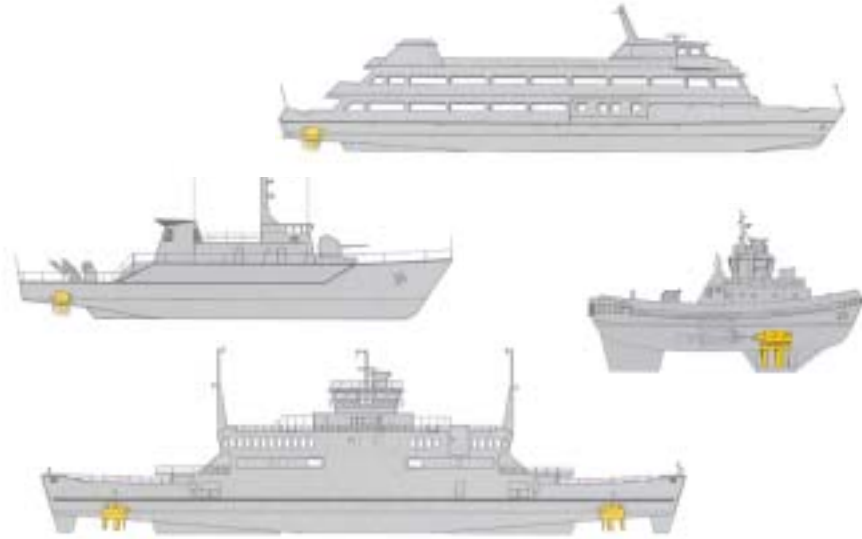
Marex OS – Optimized for Voith-Schneider propulsion systems



The safe remote control for VSP and VCR propulsion systems



Marex OS. The reliable remote control for Voith-Schneider Propellers and Voith-Schneider Cycloidal Rudders



In Hanover, Germany, Bosch Rexroth produce electrical remote controls for ship propulsion systems.

With more than 40 years of experience in development of remote controls for ship propulsion systems, Bosch Rexroth developed the modular remote control system Marex OS.

In close cooperation with Voith Turbo Marine, the Marex OS has been optimized for VSP and VCR propulsion systems.

The individual solution

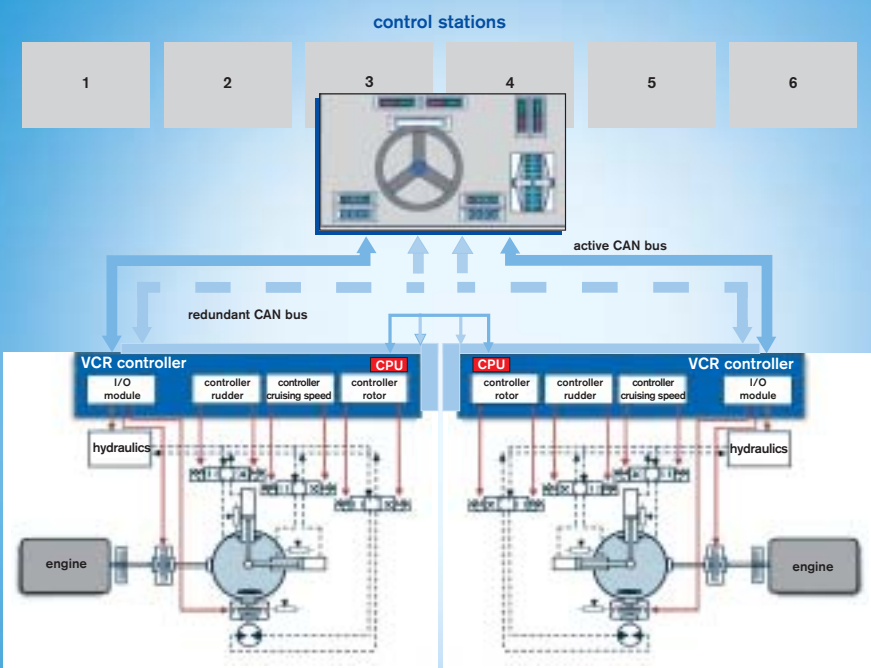
The schematic diagram shows a remote control for Voith Cycloidal Rudders (VCR). For each VCR a control bus and redundant bus are provided. Each component is available redundantly. The control devices, as steering wheel and control heads, are designed with an electrical shaft. The connection of other control auxiliaries, like autopilot and DP system is possible without problems. If necessary, the propulsion engine can be protected against overload by means of an overload control.

Pre-assembled cables ready to connect to the control stations ensure a cost-saving and secure installation of the system. Global teleservice via remote data transmission is possible as well.

The components

- Panel with steering wheel and pitch controller to set transverse and longitudinal thrust in VCR active mode and rudder angle in VCR passive mode. Bargraph to indicate transverse thrust, longitudinal thrust and rudder position.
- VCR controller to adjust the positioning cylinders for direction and pitch in active mode. Controller to adjust rudder position in passive mode.
- Pre-assembled data cables ready to connect between VCR controller and control stations.
- Global service module for teleservice via modem or satellite telephone.

Electrical remote control for Voith Cycloidal Rudder (VCR)



The System

Marex OS stands for “Open System”. Due to its high grade of modularity, the remote control can be adapted to all particularities of the propulsion system and the vessel’s operation. Reliability of operation is ensured by a redundant bus layout and redundant hardware design.

- Aligned to Voith-Schneider propulsion systems VSP, VCR
- Flexible in the adaptation to the propulsion system
- Flexible in the adaptation to the vessel’s operation
- Reliable

Space-saving and flexible due to compact design of the components. Easy, cost-saving installation due to prefabricated data cables ready to connect between control stations.

The technology

The remote control’s components are connected by means of pre-assembled cables. The CAN bus, which is prevalent in marine technologies, serves for communication purposes. The CAN bus ensures an extremely secure control procedure. Via a separate communication bus, the main and back-up system are in permanent connection. The redundant system is permanently running in the background, while the main system is working, and can take over control at any time if necessary.

- Little wiring effort
- Devices ready to connect
- Cost-saving projecting

Reliability of operation—certification

All components correspond to the highest demands of safety and fulfill the requirements of the most important classification societies.

Test

Endurance test, vibration, high-voltage, temperature, salt mist, EMC, inflammability, declination.



Our products are developed according to the instructions of the following classification societies

GL, LR, ABS, BV, Rina, DNV



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