

SANSYS

CONTROL AND MONITORING SYSTEMS



SANDERMARINE
MARINE + OFFSHORE EQUIPMENT

SANDERNAVY
NAVAL EQUIPMENT



MONITOR. MANAGE. INTERLOCK.

SANSYS Control and Monitoring Systems

SANSYS takes care of the communication between SANDER MARINE systems as well as third-party systems:

- / SANCONTROL remote control valve system
- / SANVALUE tank level gauging system
- / SANHEEL anti-heeling system
- / third party systems such as ballast water treatment, pumps, loading computer etc.
- / IAS – ship's integrated automation system



We are certified according to **ISO 9001: 2015**
Cert.no. 10213168

SANSYS provides an **intuitive and clear overview of the system's status** at any time as well as **control options for the crew**.

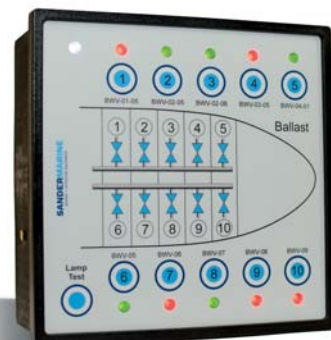
Discover 3 perfect-fit system packages

Benefit from SANDER modular automation solutions! Available in three different versions SANSYS allows a perfect balance between technical requirements and economic restrictions:

- / SANSYS Pro: Cost efficient, hardwired. Optional Modbus interface to IAS.
- / SANSYS Chief: Additional PLC control of connected systems. SANVISU visualization.
- / SANSYS Master: Additional redundancy. Customizable hardware. SANVISU visualization.

Easy. Safe. Reliable.

The SANSYS family of control and monitoring systems: A simple interface to critical systems. All relevant data in view. Efficient and easy-to-operate for the crew.

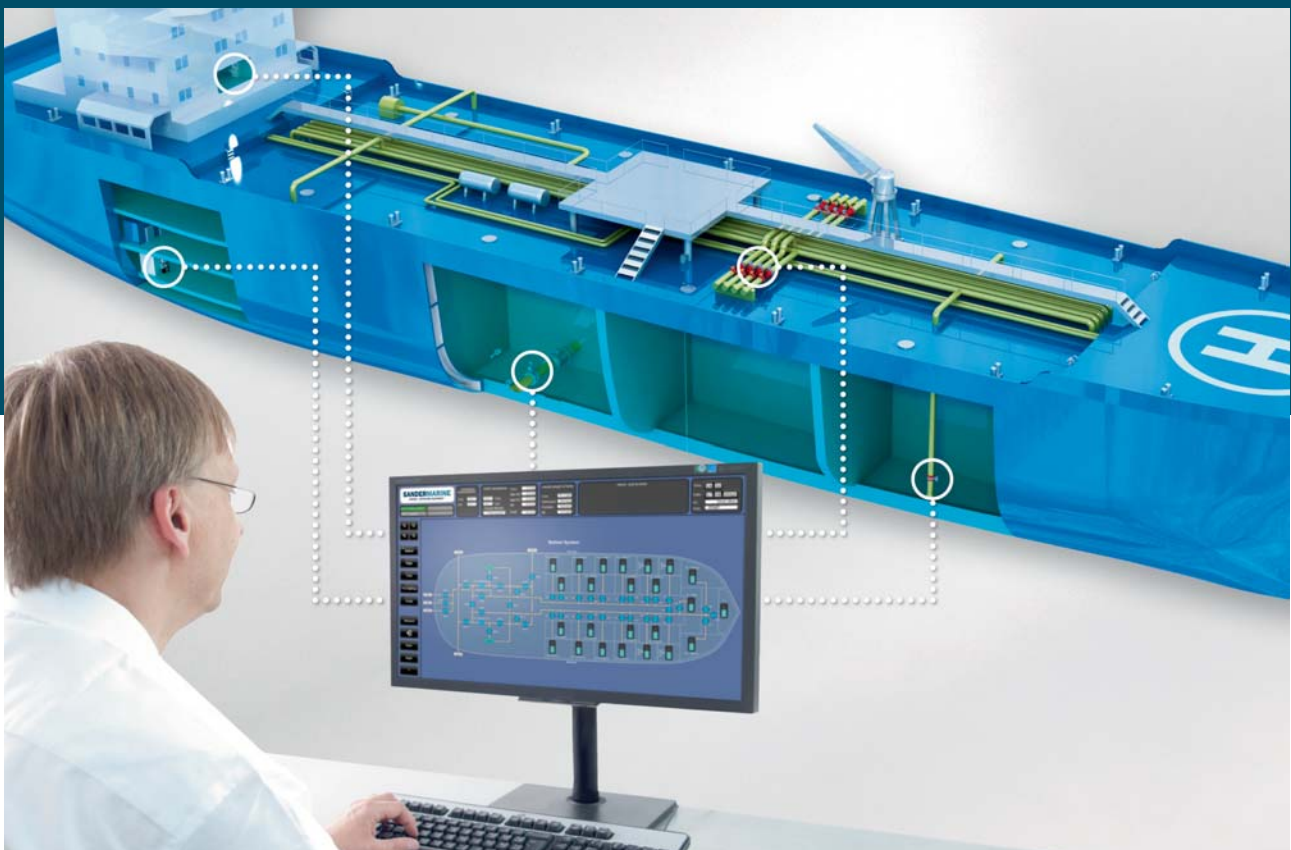


AT A GLANCE

SANSYS Overview

Feature	SANSYS Pro	SANSYS Chief	SANSYS Master
PLC based system	-	●	●
Remote control from IAS (hardwired)	●	○	○
... (Modbus)	○	●	●
Control and indication at cabinet via LED / pushbutton	○	○	○
... via touch panel	-	○	○
Max. number of remote touch panels	-	2	10
... remote workstations	-	3	
Connection to external systems	-	○	○
Tabular display of devices	-	●	●
Mimic diagrams of devices	-	○	○
Redundant network / power supply / components	-	-	○
Online documentation embedded	-	○	●

● included / ○ optional / - not available



WHICH SANSYS IS PERFECT FOR YOU?

SANSYS Pro – the Economic Solution

- / Remote operation of RCVS or TLGS from ship's integrated automation system (IAS) or central operation from control panel.
- / Numerical tank level display. Push buttons and LED status indication for valve operation.
- / Flexible configuration for various numbers of tanks.

Our logical offer for yards requiring a simple, reasonable and robust RCV and / or TLG solution with SANDER MARINE® quality.

SANSYS Chief – the Sensible Solution

Here comes our bestseller: SANSYS Chief provides the whole range of fluid management on board of a ship in one basic control system.

- / The system is based on a programmable logic controller (PLC), so you can easily perform internal operations such as tank volume calculation, for example.
- / Hard-wired or Modbus connection allows valve remote control or transmission of tank level data to and from the ship's integrated automation system (IAS). Alternatively, valve operation or a tabular tank level display is possible via SANVISU touch panel displays or workstations.
- / SANSYS Chief is able to monitor and control external systems such as ballast water treatment, pumps and hydraulic power units or exchange data with a loading computer. It can be configured to handle various numbers of open/close and proportional valves, any kind of tank level sensor and level switches.

Perfect for ship owners and preferred by most of our customers.

SANSYS Master – the High-End Solution

This is a true all-rounder. Benefit from all features of SANSYS Chief and put even more on it: A more comprehensive user interface, additional safety features and full customization.

- / The SANVISU user interface provides a mimic overview and control of the ship's systems (ballast water, bilge water, fire fighting, fuel oil etc.) and control of external devices. Detailed manuals, spare parts lists and drawings of any component are available at the operator's fingertip on any SANVISU touch panel display or workstation.
- / Advanced safety features like uninterruptable or duplicate power supply and redundant network connections meet the most stringent requirements according to IMO SOLAS "Safe Return to Port" or Navy rules.

The best choice for ship owners who do not compromise.



SANDER SYSTEMS CLEVERLY COMBINED

Good to know

SANDER MARINE offers a range of systems that can be operated in a SANSYS environment:

- / SANCONTROL remote control valve system (RCVS) - Operation and monitoring of valves from distant locations such as engine or cargo control room, often including pump control, too.
- / SANVALUE tank level gauging system (TLGS) - Monitoring the filling levels of tanks for fuel oil, ballast water, cargo, fresh and waste water, often including bunker alarm system and draught measuring.
- / SANHEEL anti-heeling system (AHS) - Keeps the ship level during cargo operations in port by automatically pumping water from port to starboard tanks and vice versa.
- / SANFAST quick closing valve system (QCVS) - Fast isolation of critical tanks in emergency situations, even in case of loss of electrical power.

Advantages for Shipyard, Owner and Crew

SANSYS is your perfect automation tool for these fluid management systems. Easy to install and commission for the shipyard, a cost efficient solution for the owner and simple and reliable to operate in all situations for the crew.

- / Easy training and reduced human error due to a uniform "look & feel" of the systems
- / One-stop shopping of spare parts, consumables and services
- / Type-approved by DNV-GL
- / Redundancy according to SOLAS "Safe return to port" for passenger ships available
- / Compatible with hydraulic / electro-hydraulic / pneumatic or electric valve actuators
- / Operation of open/close or proportional valves
- / Suitable for any type of tank level sensor and level switch

SANDERMARINE
MARINE + OFFSHORE EQUIPMENT

SANDERNAVY
NAVAL EQUIPMENT

Sander Marine GmbH&Co.KG

Julius-Bamberger-Str. 1 / 28279 Bremen / Germany

Phone: +49 421 48603-0

E-mail: info@sander-marine.com
Web: www.sander-marine.com

E-mail: info@sander-navy.com
Web: www.sander-navy.com