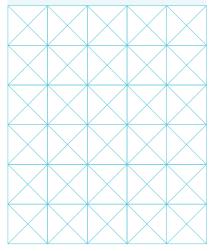


FEATURES

- Compact format.
- Simplified installation with less hardware panels and reduced wiring.
- Intuitive and easy to use operator interface.
- Integration with Tunnel Thruster system(s) offers compact and cost efficient solutions.



DMN000283797 rev A

CONTROL SYSTEMS

Remote control for main propellers

Canman Touch

A new screen based version of the CanMan control system is available offering a compact format and an enhanced user interface.

The traditional control panels with push-buttons, lamps and indicators are replaced with touch screens. Other complementary hardware panels such as Load Control panel and Separate RPM panel are now integrated into different menus of the screen.

Visualisation is improved using graphics and mimic pictures, providing a more intuitive and easy to use operator interface. A failure list is available presenting any failure in text format, clearly indicating the type and location of a failure.

The Main Propeller system has been developed with the possibility to integrate control of tunnel thruster(s), which further reduces the footprint of the controls equipment in the bridge consoles. Up to three bow and three stern thrusters can be included in the standard concept.

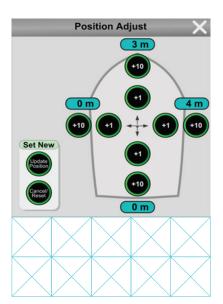
Configuration

The system is available with up to four bridge control stations and one Engine Control-room station. For a twin propeller installation the main bridge and ECR stations are equipped with two 10,4" touch screens each. The two screens on main bridge are redundant, so if one screen would fail the other can be used for operating both propellers (and if included TT's). Other stations have one touch screen each, but can as an option be equipped with two screens.



- Joystick "single lever control".
- Harbour Mode and Sea Mode.
- Rotation centrebow/mid/ stern.
- XYZ or Polar Joystick.
- Auto Heading.
- Auto Positioning.
- Head/Stern to wind.





The CPP, and if included TT thrust control levers are supplied as separate units for installation on each control station.

Each control station can be equipped with back up control panel(s) and indication panel(s). The Back-up and indication system for the main propeller is separate from the main control system and is intended for use in case of failure of the main system.

Joystick and Auto positioning

The main propeller control system can be extended with a joystick system.

The joystick system provides "single lever control" of the ship from up to four control locations and can handle up to six azimuth thrusters, six tunnel thrusters, two main propellers and two steering gears/rudders, as applicable for different installations.

The Joystick Harbour mode is used for manoeuvring, performing transverse movements and rotation with selectable rotation centre. The joystick can also be operated in Sea Mode as a common lever for thrust and steering.

The two versions of control handles XYZ-Joystick and Polar Joystick with rotation knob are both supported and can be chosen as preferred by the end

The Joystick of the CanMan Touch system has updated strategies which offer improved regulation and accuracy in auto heading mode and simplified tuning procedures, reducing the time required for commissioning. The use of screens offers enhanced and intuitive user interface with mimics and explanatory texts. In addition, an auto positioning function has been integrated into the Joystick system.

Joystick

- Joystick "single lever" control of the available propulsion units
- Up to four joystick control stations can be installed
- With a joystick the operator can steer, control the thrust, change heading (rotate) and move sideways
- · Harbour Mode for manoeuvring with manual or automatic heading
- Selectable rotation centre, bow/mid/stern
- Sea Mode, for ship transit with manual or automatic heading (course)
- In auto, the set heading/course is automatically kept (input from the gyro is required)
- For differently equipped plants:up to six azimuth thrusters, six tunnel thrusters, two main propellers and two steering gears/rudders can be controlled

Auto Positioning: (optional)

- Auto Positioning is a mode of the Joystick system for automatic position keeping, utilizing the propulsion at hand (input from GPS is required)
- When Auto Positioning is activated, the current position and heading is stored (as set point)
- The position (set point) can be fine adjusted in the Touch screen
- The system will compensate for wind and currents working to maintain the position and heading
- Heading can alternatively be set to Head or Stern to Wind, keeping the ship aligned with the current wind direction (input from wind sensor required)

Kongsberg Maritime P.O.Box 483, NO-3601 Kongsberg, Norway

Switchboard: +47 815 73 700 Global support 24/7: +47 33 03 24 07 E-mail sales: km.sales@km.kongsberg.com E-mail support: km.support@km.kongsberg.com