

MCON



KONGSBERG



MCON HIGHLIGHTS

- Optimised propulsion and thruster performance
- Fault tolerant system architecture
- Backup system is an integrated part of levers
- Easy to operate and monitor
- Advanced alert management
- Provides thrust overview on vessel level
- Easy to add joystick and positioning products

INTEGRATED PROPULSION & THRUSTER CONTROL

Mcon Propulsion, Thruster & Steering Gear Control

Mcon is the latest generation of control systems for a wide range of propulsion and thruster products delivered by Kongsberg and other suppliers. Years of experience as a leading supplier of tunnel thrusters, propellers and steering gears, as well as support for the vast range of legacy products, is embedded into the new control system.

Mcon contains advanced control system software to minimize energy consumption as well as reducing mechanical wear. The development of this software has drawn upon the world class hydrodynamic expertise in Kongsberg.

The common touch-screen display enables the user to monitor and operate each propulsion and thruster unit.

The amount of information presented on the display is restricted to the basics necessary for the operation of the system. This helps the operator to focus on the most vital information.

Real-time and historical data can be monitored in the Trending view.

Easy and Intuitive Operation

All essential operations can be conducted with the lever devices and its pushbuttons and indicators, such as system activation and deactivation, command transfer, backup-control and silencing of audible alarms. Command transfer between multiple operator stations is consistently handled when delivered with our propulsion and thruster control products and optional positioning products.

Motorized levers ensure bumpless transfer of commands.

Through the common display, the operator gets easy overview of the system performance, alerts, signal trends, system settings and modes of operation. The graphical user interface is designed for touch-screen operation with intuitive interaction patterns.

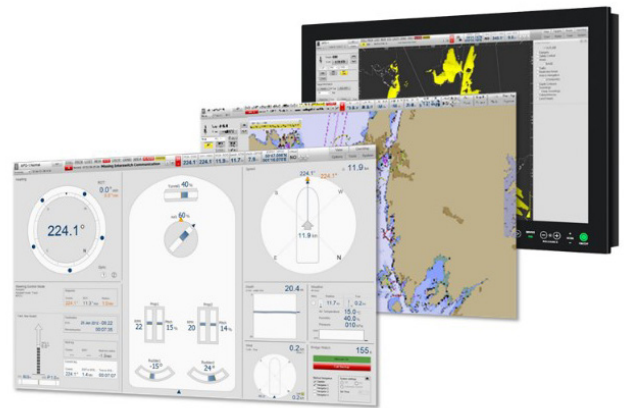
The bridge components are designed as an integral part of the K-Bridge and the K-Master.



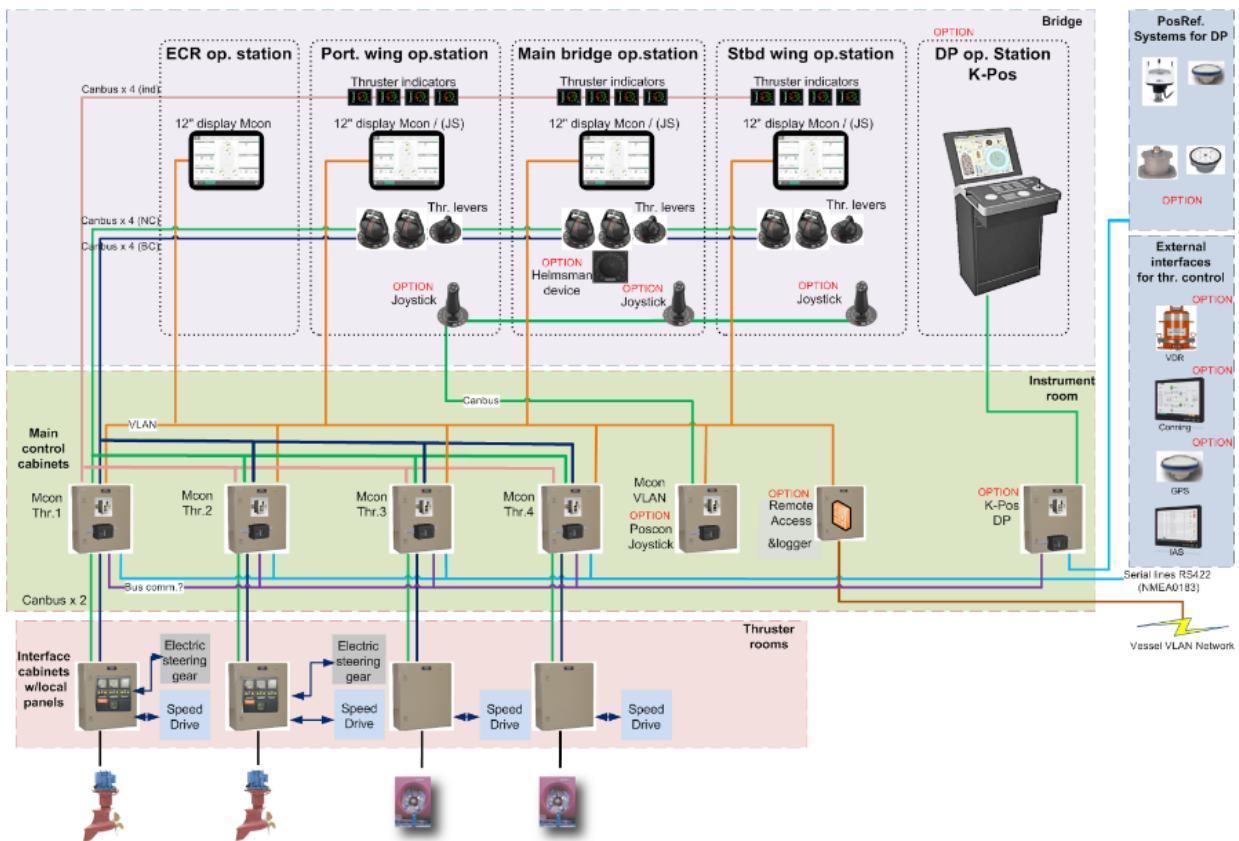
System integration

Mcon have standardised and efficient network interfaces to other products and a range of shared functions, such as:

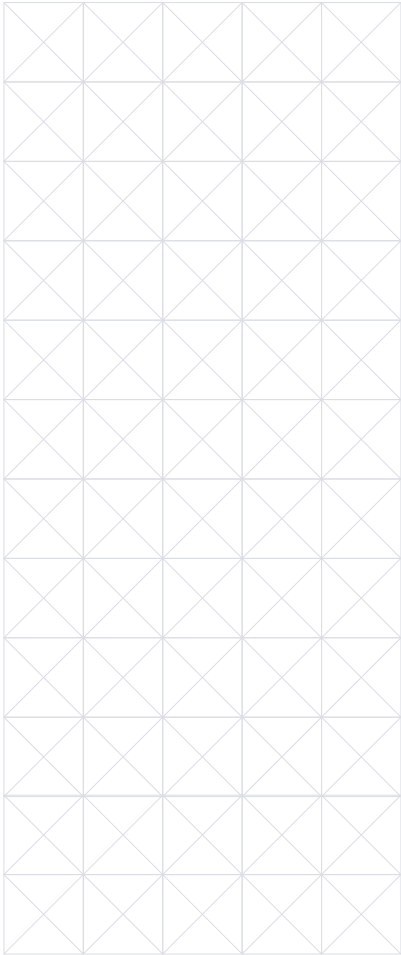
- Common palette selection (day, dusk, night) and display dimming.
- Common alert muting.
- Manoeuvre mode selection (such as lever control, joystick, DP or Autopilot / Track pilot).
- Advanced Manoeuvring (Autocrossing Autodocking).
- Station-keeping, Follow the Sun, Anchor Watch.



Mcon thruster control system



MAIN UNITS	FUNCTION
Control cabinet	Main electronic unit, one unit per propeller/thruster, comprising: <ul style="list-style-type: none"> • Power supply • Application CPUs • I/O cards (DI, DO, AI, AO, serial line interfaces)
Interface cabinet (I/O)	I/O cabinet, one unit per propeller/ thruster, comprising: <ul style="list-style-type: none"> • I/O to/from external connections • Local indicator/Control panel
Network cabinet	Network routing, one unit per ship installation
Control Lever	Control levers (single or double), for desk or operator's chair drop-in mounting, comprising: <ul style="list-style-type: none"> • Double encoders for normal and backup control • Push-buttons and LED indication • Motorized version (option)
Indicators	Display instruments customized for each installation. One per propeller/thruster. Desk or overhead drop-in mounting
Display Mcon	Panel PC with Graphical User Interface (touch screen) for readout of information, alarms and command inputs. Mounted with articulated arm on control desk top or operator's chair armrest top



Optional Functions

The Mcon product range is designed to facilitate easy upgrade functions for joystick, positioning and transit sailing through the existing user display.

The system has a built-in data logger and also has an interface to the ship-wide data logging. Mcon is prepared for Remote Access for remote inspection and fault finding (will need separate hardware).

