

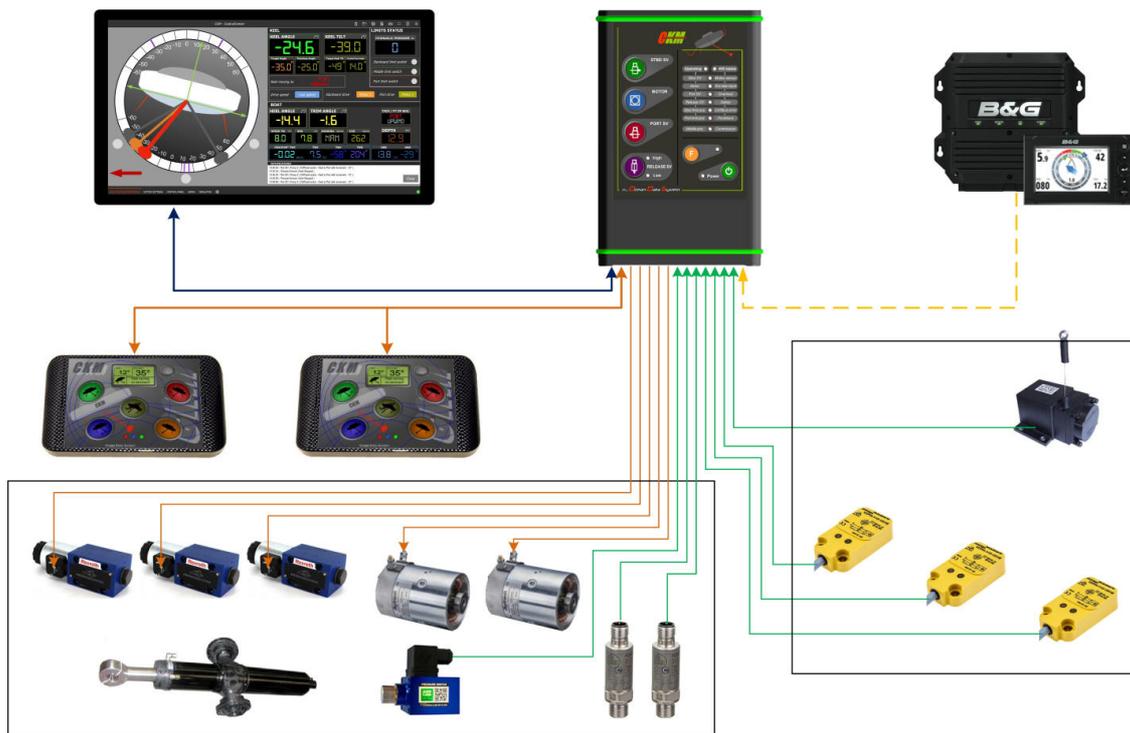


Canting Keel Manager



Dedicated for monohulls equipped with a canting keel operated by hydraulic/electric power drive

- *Security-controlled keel handling*
- *Manual, semi-automatic or automatic keel control*
- *Full monitoring of the system and operations*
- *Automatic management of tacking sequence*
- *Securing the vessel in case of capsizing or loss of keel (optional)*
- *Integrates optimal target keel angle (optional),*
- *Records the history of manoeuvres and events, provides an operating report*
- *Integrates energy saving modes*



Features

CKM integrates the target keel angle based on the heel angle, wind angle and speed. The automatic tacking sequence is fully user-configurable. This can vary according to wind angle (tack or gybe) and wind strength. Energy saving mode reduces power consumption and favours the use of gravity.

CKM can deal with up to 3 pumps allowing smooth keel motion start and stop, several travel speeds and redundancy.

The CKM ControlCenter software offers enhanced functions :

- Full monitoring of the system,
- Recording and viewing of historic data concerning the control of the keel,
- System operations reports,
- Managing target keel position,

User friendly

From the remote control panels, the user can run the keel movements.

- move up to port or starboard,
- move down using gravity,
- stop the movement,
- run the tacking sequence.

The keel movement is stopped automatically or manually by the user.

The figures on the main unit and the control panels indicate the ongoing process. The current and target keel angles and heel are shown on the control panel's display.

An optional wireless remote control is also available.



CKM main unit :

- 4 keys for direct manual control of the hydraulic components,
- 1 function key
- 1 ON/OFF key
- 13 LED indicators for hydraulic devices processes and operating status.



Control panels :

- 1 display for keel angles, heel and notifications
- 3 indicators for underway processes and operating status
- 1 display control key
- 5 command keys
- Backlight on display and keys
- Carbon fibre look

Features	
Number of output channels (relay outputs)	6
Alarm management	yes
Contextual management on wind angle and speed	Option
NMEA input	
Ethernet link for CKM ControlCenter software	1
Software CKM ControlCenter	Option
Wireless remote control	Option
Maximum number of control panels	16
Data and events recording	yes
Analogue inputs / Digital signal inputs	7 / 5
Actuator status indicator	yes
Main unit power supply : voltage / power max	9/32 vdc - 1.7 W
Dimensions of CKM main unit	H220 x W130 x D36mm
Dimensions of CKM control unit	H160 x W90 x D19mm
Weight of CKM main unit	700gr

Improving safety

For the boat and the crew: if the boat goes over on its side, the keel automatically goes back into position to increase the righting moment. If the boat is upside down, the keel automatically goes to the opposite side of where the waves are coming from.

The keel anomaly sensing function means it is possible to secure the boat (if connected to the UpSideUp system) and to raise an alarm.

For the equipment: the system includes all the safety features that are required to avoid damage in case of human error or sensor failure.

If there is any equipment failure and to test the various devices, four keys on the front of the electronic box enable the keel to be moved. They directly control the solenoid valves and the pumps (or the electrical drive).

Reliable and low-energy use

With a minimum number of connections, and high-quality integrated electronic circuits, a CAN bus, and easily switchable electronic card, the equipment offers everything to ensure a long-lasting and reliable system, whatever the circumstances and guarantees easy maintenance.

The system is compact, lightweight and very low power consumption.

Simple and independent

CKM works completely independently. It is not a requirement to have connections with the ControlCenter software or nav instruments. The CKM main unit embeds a 9° of freedom sensor measuring precisely the heel angle.

Easily updated

The system behaviour can be modified with simple configuration files and user settings update, directly from the ControlCenter software.

CKM is open to custom developments. The client can request a particular operating mode or a specific function. CKM can be used on all kind of boats with any power drive systems

Access to the system from remote by our technical service for easy maintenance and updates.

CKM ControlCenter software

