RADIO ZEELAND DMP

COMMANDER LINE

Commander line

Radio Zeeland DMP

Radio Zeeland was founded in 1952 and started as a small shop in Hulst and through the years it changed to a repair center for navigation and communication products in Terneuzen. Over time, the need for reliable and high-quality products for inland shipping became apparent. This triggered focus on development and production of navigation equipment. The core of our portfolio is our own rate of turn gyro, which is complemented with a display instrument, and several autopilot options. By adding a shallow water echo sounder, and other equipment several complete product lines were created. Recurring theme is the focus on design, quality and a user-friendly operation.

After 20 years of full dedication to the commercial shipping industry, we have taken the steps into the yachting market. With new ideas and techniques, we have introduced a completely new perception of the integrated bridge. Over the years we have installed our systems on some of the world's most prestigious yachts and work closely together the most respected shipyards. High quality and matching aesthetics are the key for all our panels, consoles and integrated systems.

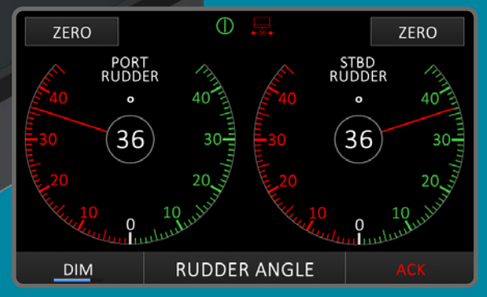
Whatever the challenge, Radio Zeeland DMP offers the perfect solution.

NEW Commander line

On request from our key customers we decided to create a new line with navigation equipment for the short sea going vessels in combination with our inland knowledge

Therefore we are proud to introduce the NEW Commander-line for the short sea going vessels in combination with our inland knowledge we already have for years.

This Commander-line has all functionality for several markets like coastal shipping, windmill industry, fishing industry, workboats and tugs. The next step for our customers to our reliable quality products.



Commander 100 (XL) Rudder Angle Indicator

The rudder angle indicator system consists of a Commander 200 display unit and a P-200 sensor and provides a continuous and analog indication of the rudder's actual position. The rugged sensor can be used in harsh environments and has a magnetic measuring system which will not wear out in time and does not need any maintenance. The sensor communicates via NMEA messages with the display unit and the sensor can also be adjusted via the display unit, so once the sensor is installed it never has to be opened again.

The display unit can be set to multiple ranges for the rudder angle, such as 45 – 0 – 45, 60 – 0 – 60, 75 – 0 – 75 and 90 – 0 – 90. It is possible to show two rudders (port and starboard) simultaneously on one display unit, giving you the information of both rudders at one glance.

The P-200 sensor also has a -10V to +10V analog output for external systems. Multiple display units can be connected to the system so that the rudder angle can be shown on various places throughout the vessel.

Display unit

- Dimensions; 240 x 144 x 90 mm, XL; 288 x 192 x 90 mm
- Netto weight; 1 kg, XL; 2 kg
- Protection; IP50
- Temperature; 0 – 55 °C
- Humidity; 0 – 90% non condensing
- Power supply; 18 – 36 VDC, 1.2 A, XL; 2 A
- Display size; 8", XL; 10"
- Resolution; 800 x 480 pixels, XL; 1920 x 1280 pixels
- Touchscreen; resistive
- Brightness; 450 Cd/m2
- Dimming range; 0 - 100%
- Inputs/outputs; NMEA0183, Ethernet
- Measuring range; 45°, 60°, 75° and 90°. One or two rudders

Rudder angle transmitter P-200

for specifications, see page 17

Commander 120 (XL)
Echo Sounder Indicator

The echo sounder indicator system consists of a Commander 200 display unit, a P-122 junctionbox and a P-260 sensor and provides a continuous indication of the actual depth beneath the keel. The sensor automatically switches over from 50 kHz for measuring ranges until 100 meter and 50 kHz for measuring ranges beyond 100 meter. The junctionbox communicates via NMEA messages with the display unit. Up to two junctionboxes and sensors can be connected to one display unit and multiple display units can be connected to the system so that the depth information can be shown on various places throughout the vessel. On the display it is possible to add the location of the sensors.

A depth alarm is provided for each connected sensor and can be set in the range from 1 to 10 meter.

Display unit

- Dimensions; 240 x 144 x 90 mm, XL; 288 x 192 x 90 mm
- Netto weight; 1 kg, XL; 2 kg
- Protection; IP50
- Temperature; 0 – 55 °C
- Humidity; 0 – 90% non condensing
- Power supply; 18 – 36 VDC, 1.2 A, XL; 2 A
- Display size; 8", XL; 10"
- Resolution; 800 x 480 pixels, XL; 1920 x 1280 pixels
- Touchscreen; resistive
- Brightness; 450 Cd/m2
- Dimming range; 0 - 100%
- Inputs/outputs; NMEA0183, Ethernet
- Measuring range; 0 – 20 m, 0 – 50 m, 0 – 200 m and 0 – 500 m
- Depth alarm range; 0 – 10 m

Junction box P-122

For specifications, see page 18

Sensor P-260

- Dimensions; 216 x 114 x 244 mm
- Housing; stainless steel
- Hull material; any
- Beam width; 6° and 19°
- Frequency; 200 kHz and 50 kHz
- Mounting style; thru hull

Commander 130 (XL)
Wind Indicator

The wind indicator system consists of a Commander 200 display unit and a P-133 sensor and provides a continuous indication of the relative or true wind direction and wind speed and also can display the air pressure and the temperature. The sensor works with ultrasonic sound and has no moving parts, therefore the sensor needs no maintenance other than cleaning the unit. The sensor works on 12 VDC, which is supplied from the display unit. The sensor comes with a 25 meter cable which is connected directly to the sensor.

The display unit shows the wind direction together with the wind speed. The wind speed can be displayed in m/sec, Beaufort or knots, depending on the user's preference. The system can also show the absolute wind information without the need of connecting an external GPS.

Wind sensor P-131

Display unit

- Dimensions; 240 x 144 x 90 mm, XL; 288 x 192 x 90 mm
- Netto weight; 1 kg, XL; 2 kg
- Protection; IP50
- Temperature; 0 – 55 °C
- Humidity; 0 – 90% non condensing
- Power supply; 18 – 36 VDC, 1.2 A, XL; 2 A
- Display size; 8", XL; 10"
- Resolution; 800 x 480 pixels, XL; 1920 x 1280 pixels
- Touchscreen; resistive
- Brightness; 450 Cd/m2
- Dimming range; 0 - 100%
- Inputs/outputs; NMEA0183, Ethernet, 12 VDC supply for sensor
- Measuring range; wind direction 0 – 360°, wind speed 0 – 40 m/sec / 0 – 12 Beaufort, 0 – 80 knots

Wind sensor P-131

- Dimensions; 75 x 131 mm
- Netto weight; 1.0 kg
- Protection; IP65
- Temperature; -15°C - +55°C
- Humidity; 0 – 90% non condensing
- Power supply; 12 VDC, 0.25 A
- Resolution windspeed; 0.1 m/sec
- Resolution wind direction; 0.1°
- Detection method; ultra sonic
- Output; RZ0183

Commander 300 XL
Rate of Turn Indicator

The rate of turn indicator system consists of a Commander 200 XL display unit and a P-300 sensor and provides a continuous indication of the momentary rate of turn.

On the display the range of the rate of turn can be set to 30°/min, 120°/min or 300°/min.

Display unit

- Dimensions; 288 x 192 x 90 mm
- Netto weight; 2 kg
- Protection; IP50
- Temperature; 0 – 55 °C
- Humidity; 0 – 90% non condensing
- Power supply; 18 – 36 VDC, 2 A
- Display size; 10”
- Resolution; 1920 x 1280 pixels
- Touchscreen; resistive
- Brightness; 450 Cd/m2
- Dimming range; 0 - 100%
- Inputs/outputs; NMEA0183, Ethernet
- Measuring range; 30°/min, 120°/min and 300°/min

Rate of Turn sensor P-300

For specifications, see page 17

Commander Heading Control System (XL) (heading pilot)

The heading control system consists of a Commander 200 display unit, a P-200 rudder angle sensor and a P-503 junctionox. The rugged sensor can be used in harsh environments and has a magnetic measuring system which will not wear out in time and does not need any maintenance. The sensor communicates via NMEA messages with the junction box and the sensor can also be adjusted via the display unit, so once the sensor is installed it never has to be opened again. The junctionbox connects to the various sensors and to the steering gear, many interfaces for various steering gears are standard available in this junctionbox.

The system’s main function is to keep the vessel on a pre-set course. The system can easily be expanded so it can also function as a follow up system and even as an approved inland pilot system when using the optional P-300 rate of turn sensor.

Display unit

- Dimensions; 240 x 144 x 90 mm, XL; 288 x 192 x 90 mm
- Netto weight; 1 kg, XL; 2 kg
- Protection; IP50
- Temperature; 0 – 55 °C
- Humidity; 0 – 90% non condensing
- Power supply; 18 – 36 VDC, 1.2 A, XL; 2 A
- Display size; 8”, XL; 10”
- Resolution; 800 x 480 pixels, XL; 1920 x 1280 pixels
- Touchscreen; resistive
- Brightness; 450 Cd/m2
- Dimming range; 0 - 100%
- Inputs/outputs; NMEA0183, Ethernet

Junction box P-503
Rudder angle transmitter P-200
Rate of Turn sensor P-300 (optional)

For specifications, see page 17 and 18

System specifications

- Signal inputs;
  - heading HDT and HDG,
  - position GGA and GLL,
  - speed VTG
  - Rudder angle
- Status, alerts, alarms;
  - Power failure
  - Communication error
  - Off heading
  - Heading integrity
  - Steering failure
  - Course failure
- Functions
  - Stand-by
  - Follow up
  - Heading control
  - Rate of turn (optional)
- Settings
  - Desired course
  - Sensitivity
  - Yaw
  - Rudder
  - Counterrudder
  - Course alarm

Commander Track Control System (XL) (track pilot)

The track control system consists of a Commander 200 display unit, a P-200 rudder angle sensor and a P-503 junctionox. The rugged sensor can be used in harsh environments and has a magnetic measuring system which will not wear out in time and does not need any maintenance. The sensor communicates via NMEA messages with the junction box and the sensor can also be adjusted via the display unit, so once the sensor is installed it never has to be opened again. The junctionbox connects to the various sensors and to the steering gear, many interfaces for various steering gears are standard available in this junctionbox.

The system's main function is to keep the vessel on a pre-set track. The system can easily be expanded so it can also function as a follow up system and even as an approved inland pilot system when using the optional P-300 rate of turn sensor.

Display unit

- Dimensions; 240 x 144 x 90 mm, XL; 288 x 192 x 90 mm
- Netto weight; 1 kg, XL; 2 kg
- Protection; IP50
- Temperature; 0 – 55 °C
- Humidity; 0 – 90% non condensing
- Power supply; 18 – 36 VDC, 1.2 A, XL; 2 A
- Display size; 8", XL; 10"
- Resolution; 800 x 480 pixels, XL; 1920 x 1280 pixels
- Touchscreen; resistive
- Brightness; 450 Cd/m2
- Dimming range; 0 - 100%
- Inputs/outputs; NMEA0183, Ethernet

Junction box P-503
Rudder angle transmitter P-200
Rate of Turn sensor P-300 (optional)

For specifications, see page 17 and 18

System specifications

- Signal inputs;
  - heading HDT and HDG,
  - position GGA and GLL,
  - speed VTG
  - ECDIS
  - Rudder angle
- Status, alerts, alarms;
  - Power failure
  - Communication error
  - Off heading
  - Heading integrity
  - Steering failure
  - XTE alarm
  - Next waypoint
  - End of trip
- Functions
  - Stand-by
  - Follow up
  - Track control
  - Rate of turn (optional)
- Settings
  - Sensitivity
  - Yaw
  - Rudder
  - Counterrudder
  - Course alarm

Commander 400 Multi functional display

The Commander 400 is a multifunctional display of 5.7" which accepts a variety of NMEA messages and can display these in a graphic or numerical format. The contents of the display can be set by the user via a web interface and there is also a selection of standard formats available which can be displayed.

The Commander 400 in combination with a P-200 rudder angle sensor can be used as an approved rudder angle indicator. Also the Commander 400 in combination with a P-133 windsensor can be used as a small windstation.

Rudder angle sensor P-200

Wind sensor P-131

Display unit

- Dimensions; 144 x 144 x 90 mm
- Netto weight; 1 kg
- Protection; IP50
- Temperature; 0 – 55 °C
- Humidity; 0 – 90% non condensing
- Power supply; 18 – 36 VDC, 1 A
- Display size; 5.7"
- Resolution; 640 x 480 pixels
- Touchscreen; resistive
- Brightness; 450 Cd/m2
- Dimming range; 0 - 100%
- Inputs; NMEA0183
- Functions (depending on delivered information);
  - Depth
  - Water temperature
  - Rudder angle
  - Rate of turn
  - Speed through water
  - Speed over ground
  - Trip
  - Odometer
  - Time and date
  - Wind speed (absolute, relative)
  - Wind direction (absolute, relative)
  - Temperature
  - Heading
  - Position
- Screen lay-out can be set up through web interface

Commander 405 Multi functional display

The Commander 405 is a multifunctional display of 3.5” which accepts a variety of NMEA messages and can display these in a graphic or numerical format. The contents of the display can be set by the user via a web interface and there is also a selection of standard formats available which can be displayed.

Display unit

- Dimensions; 96 x 96 x 90 mm
- Netto weight; .5 kg
- Protection; IP50
- Temperature; 0 – 55 °C
- Humidity; 0 – 90% non condensing
- Power supply; 18 – 36 VDC, 1 A
- Display size; 3.5”
- Resolution; 320 x 240 pixels
- Touchscreen; resistive
- Brightness; 600 Cd/m2
- Dimming range; 0 - 100%
- Inputs; NMEA0183
- Functions (depending on delivered information);
  - Depth
  - Water temperature
  - Rudder angle
  - Rate of turn
  - Speed through water
  - Speed over ground
  - Trip
  - Odometer
  - Time and date
  - Wind speed (absolute, relative)
  - Wind direction (absolute, relative)
  - Temperature
  - Heading
  - Position
- Screen lay-out can be set up through web interface

Commander Steering System (XL)

The Commander steering system is a flexible system that controls the rudder position to a given setpoint as received from one or more control systems that are connected to this steering system. Possible (external) control systems are NFU, FU, Heading Control System, Track Control System, DP etc. The steering system is a flexible system but the minimum configuration includes a Commander 200 display and alarm unit, a P-503 junctionbox and a P-200 rudder angle sensor. The rugged sensor P-200 can be used in harsh environments and has a magnetic measuring system which will not wear out in time and does not need any maintenance. The sensor communicates via NMEA messages with the junctionbox and the sensor can be adjusted via the display unit, so once the sensor is installed it never has to be opened again. The junctionbox P-503 connects to the various sensors and control systems and to the steering gear, many interfaces for various steering gears are standard available in this junctionbox.

Besides the minimum configuration there are various other control systems available that can expand the steering system to your needs.

See following pages for more elements for the steering system.

Display and alarm unit

- Dimensions; 240 x 144 x 90 mm, XL; 288 x 192 x 90 mm
- Netto weight; 1 kg, XL; 2 kg
- Protection; IP50
- Temperature; 0 – 55 °C
- Humidity; 0 – 90% non condensing
- Power supply; 18 – 36 VDC, 1.2 A, XL; 2 A
- Display size; 8”, XL; 10”
- Resolution; 800 x 480 pixels, XL; 1920 x 1280 pixels
- Touchscreen; resistive
- Brightness; 450 Cd/m2
- Dimming range; 0 - 100%
- Inputs/outputs; NMEA0183, Ethernet

Junction box P-508

Rudder angle transmitter P-200

For specifications, see page 17 and 18

Commander 260 non follow up;

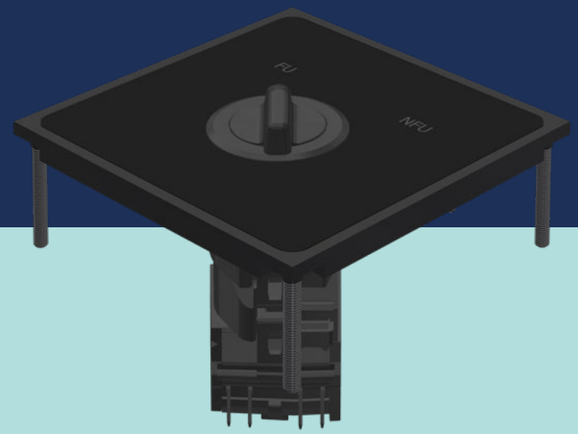
This emergency rudder control is connected directly tot he steering gear and enables you to control the rudder in all possible situations.

- Dimensions; 96 x 144 x 92 mm
- Netto weight; 1 kg
- Protection; backside IP50, frontside IP54
- Temperature; -20°C - +55°C
- Humidity; 0 – 90% non condensing
- Power supply; 18 – 36 VDC, 0.5 A
- Display; 2.8”
- Resolution; 320 x 240 pixels
- Touchscreen; resistive
- Input/output; CANbus
- Control; joystick spring return.

Commander 270 follow up;

One or more follow up units can be integrated into the steering system and gives you the opportunity to control the rudder angle with a mini wheel.

- Dimensions; 96 x 144 x 92 mm
- Netto weight; 1 kg
- Protection; backside IP50, frontside IP54
- Temperature; -20°C - +55°C
- Humidity; 0 – 90% non condensing
- Power supply; 18 – 36 VDC, 0.5 A
- Display; 2.8”
- Resolution; 320 x 240 pixels
- Touchscreen; resistive
- Input/output; CANbus
- Control; steering wheel



Commander 255
NFU – FU switch;

With this unit one can select if the steering gear is controlled by hand (NFU) or via another system (FU).

- Dimensions; 96 x 96 x 92 mm
- Netto weight; 0.5 kg
- Protection; IP50
- Temperature; -20°C - +55°C
- Humidity; 0 – 90% non condensing
- Control; mechanical switch

Commander 265 steering wheel;

One or more steering wheel units can be integrated into the steering system and gives you the opportunity to control the rudder angle with a steering wheel.

- Dimensions; 144 x 144 x 200 mm
- Netto weight; 2.5 kg
- Protection; IP50
- Temperature; -20°C - +55°C
- Humidity; 0 – 90% non condensing
- Power supply; 18 – 36 VDC, 0.5 A
- Resolution; 0.4°
- Detection method; magnetic

Commander 280 thruster control;

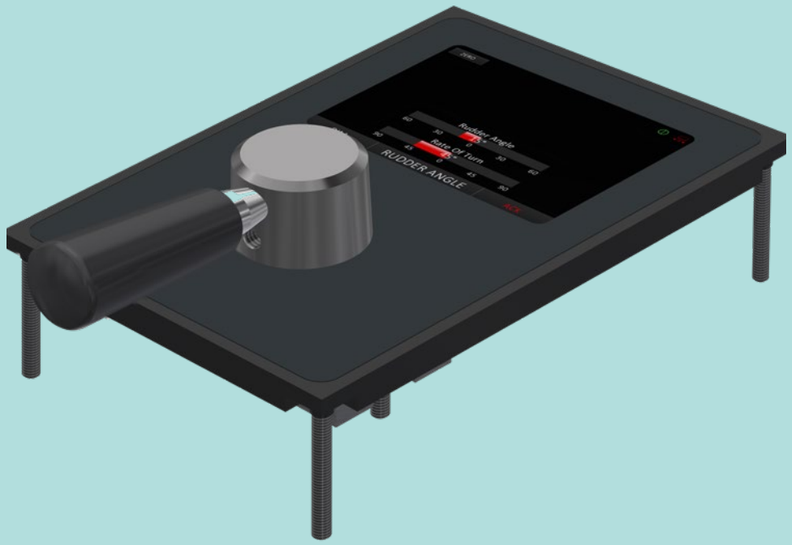
One or more thruster control units can be integrated into the steering system and gives you the opportunity to control the thruster.

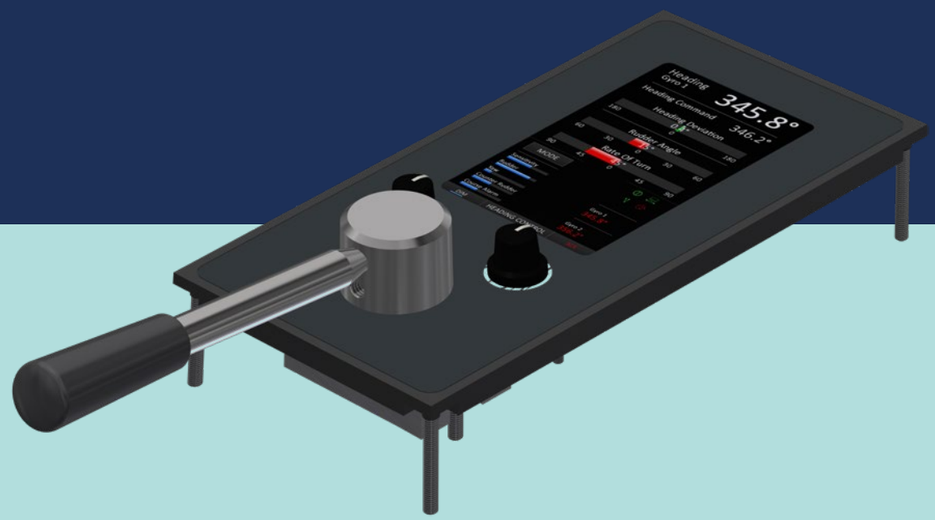
- Dimensions; 96 x 144 x 92 mm
- Netto weight; 1 kg
- Protection; backside IP50, frontside IP54
- Temperature; -20°C - +55°C
- Humidity; 0 – 90% non condensing
- Power supply; 18 – 36 VDC, 0.5 A
- Display; 2.8”
- Resolution; 320 x 240 pixels
- Touchscreen; resistive
- Input/output; CANbus
- Control; thruster handle

Commander 285 follow up;

One or more follow up units can be integrated into the steering system and gives you the opportunity to control the rudder angle with a simple control handle.

- Dimensions; 96 x 144 x 92 mm
- Netto weight; 1 kg
- Protection; backside IP50, frontside IP54
- Temperature; -20°C - +55°C
- Humidity; 0 – 90% non condensing
- Power supply; 18 – 36 VDC, 0.5 A
- Display; 2.8”
- Resolution; 320 x 240 pixels
- Touchscreen; resistive
- Input/output; CANbus
- Control; steering handle

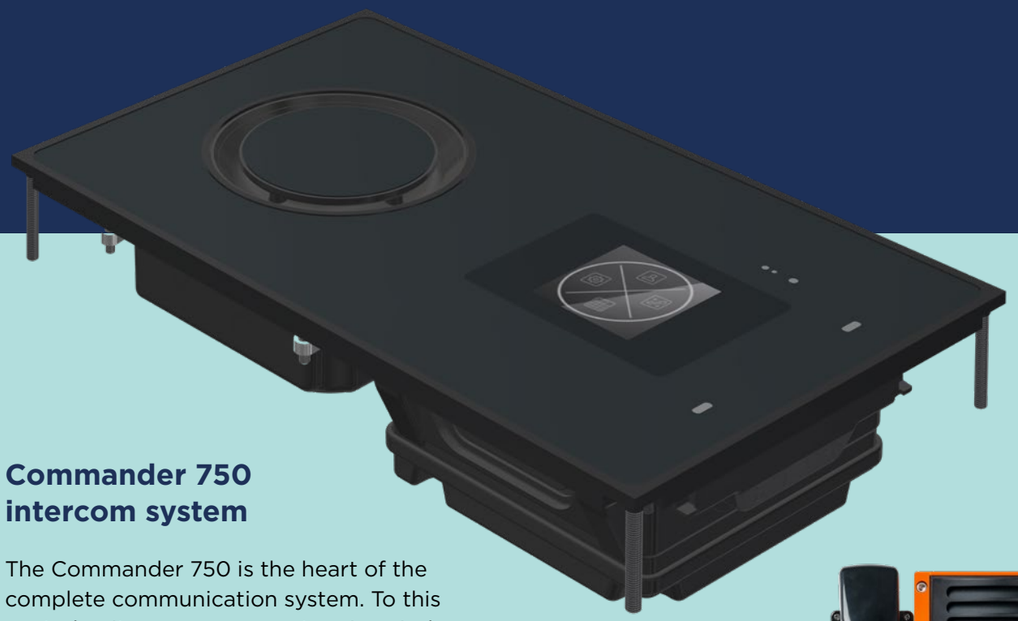




Commander 675 control unit

The Commander 675 control unit can be used in conjunction with the Heading Control system or the Track Control system and it will expand these systems with the functions Follow Up and Riverpilot (rate of turn sensor P-300 needed as well). With this unit you can also control almost all the functions which are available on the screen directly from this unit.

- Dimensions; 96 x 144 x 92 mm
- Netto weight; 1 kg
- Protection; backside IP50, frontside IP54
- Temperature; -20°C - +55°C
- Humidity; 0 – 90% non condensing
- Power supply; 18 – 36 VDC, 0.5 A
- Display; 4”
- Resolution; 320 x 480 pixels
- Touchscreen; resistive
- Input/output; serial communication
- Control; steering handle



Commander 750 intercom system

The Commander 750 is the heart of the complete communication system. To this central unit one can connect various indoor and outdoor intercom stations, with or without the possibility of video. There is also a rugged station available for the engine room and desktop stations for the offices or living spaces. The system can also be connected to a cellphone interface enabling every station to make calls outside the vessel as well.

- Dimensions; 240 x 144 x 92 mm
- Netto weight; 1.5 kg
- Protection; IP50
- Temperature; -20°C - +55°C
- Humidity; 0 – 90% non condensing
- Power supply; 18 – 36 VDC, 1.5 A
- Display; 3”
- Resolution; 320 x 480 pixels
- Touchscreen; resistive
- Input/output; ethernet

Rudder angle transmitter P-200

- Dimensions; 125 x 152 mm
- Netto weight; 1.5 kg
- Protection; IP65
- Temperature; -20°C - +55°C
- Humidity; 0 – 90% non condensing
- Power supply; 12 – 36 VDC, 0.5 A
- Resolution; 0.4°
- Mechanical rotation; 360°
- Detection method; magnetic
- Output; NMEA0183 & -10V – +10V analogue
- Selection for port or starboard rudder angle transmitter

Rate of Turn sensor P-300

- Dimensions; 200 x 180 x 160 mm
- Netto weight; 4 kg
- Protection; IP50
- Temperature; 0°C - +45°C
- Humidity; 0 – 90% non condensing
- Power supply; 18 - 36 VDC, 2.5 A
- Resolution; 0.5 °/min
- Start up time; <60 sec
- Output; RZ0183

Junction box P-122

- Dimensions; 160 x 160 x 90 mm
- Netto weight; 7.5 kg
- Power rating; 1 kW
- Deadrise angle; Max 20°
- Humidity; 0 – 90% non condensing
- Power supply; 18 – 36 VDC, 1.5 A
- Output; NMEA0183

Junction box P-503

- Dimensions; 358 x 229 x 77 mm
- Netto weight; 2.5 kg
- IP rating; IP50
- Humidity; 0 – 90% non condensing
- Power supply; 18 – 36 VDC, 2.5 A
- Inputs; 2 x NMEA0183, 4 x digital in, 2 x analogue in
- Outputs; 2 x xNMEA, 2 x analogue -10V - +10V, BNWAS, alarm
- Steering outputs; 2 x Danfoss, 2 x Common +, 2 x Common -, 2 x motor drive, 2 x brake
- 4 ethernet ports

Junction box P-508

- Dimensions; 358 x 229 x 77 mm
- Netto weight; 2.5 kg
- IP rating; IP50
- Humidity; 0 – 90% non condensing
- Power supply; 18 – 36 VDC, 2.5 A
- Inputs; 2 x NMEA0183, 4 x digital in, 2 x analogue in
- Outputs; 2 x xNMEA, 2 x analogue -10V - +10V, BNWAS, alarm
- Steering outputs; 2 x Danfoss, 2 x Common +, 2 x Common -, 2 x motor drive, 2 x brake
- 4 ethernet ports

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