

Alamarin-Jet IO-Intelligent Operation

Joystick Control System

SYSTEM DESCRIPTION

SYSTEM SCHEMAS

COMPONENT SPACE REQUIREMENT



Intelligent Operation

IO

Go with the flow.

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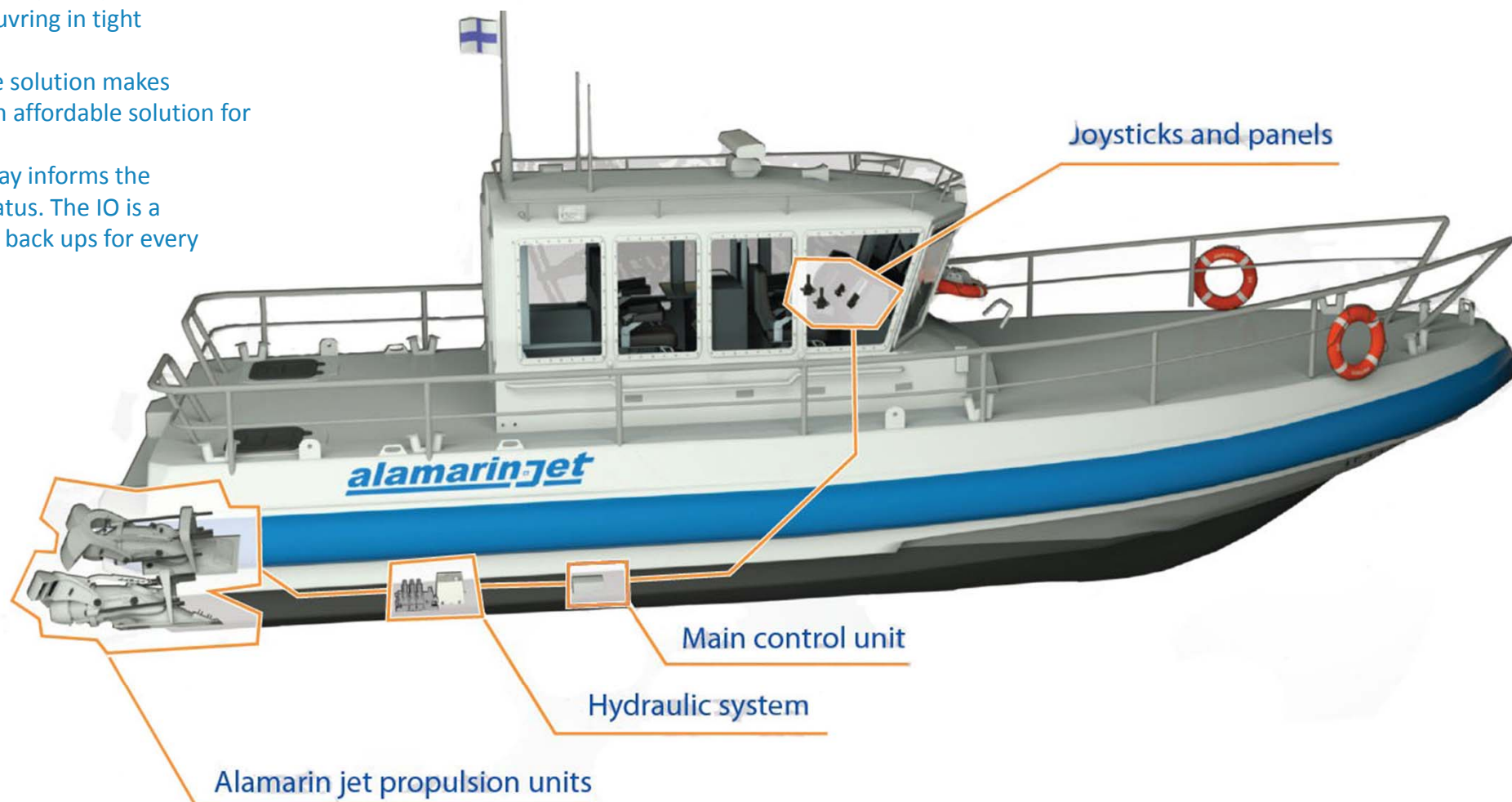
 **Go with the flow.**

Alamarin Jet IO is a total control system for twin jet boats equipped with Jet-230 or Jet-288 units.

The boat can be operated with IO in all Situations, whether going straight and fast or slowly manoeuvring in tight spaces and docking.

A simple and intuitive solution makes manoeuvring easy. An affordable solution for smaller boats as well.

A hi-tech colour display informs the user about system status. The IO is a safe system featuring back ups for every vital function.



Robust backup panel for emergency control without the need for digital control unit.

Main operating panel with integrated electric gear switches and informative system display.

Left-side stick has one axis for steering.

Right-side stick has two axes for simultaneous control of reverse buckets and throttle.

Joysticks can be integrated to seat armrests.

Secondary station optional.



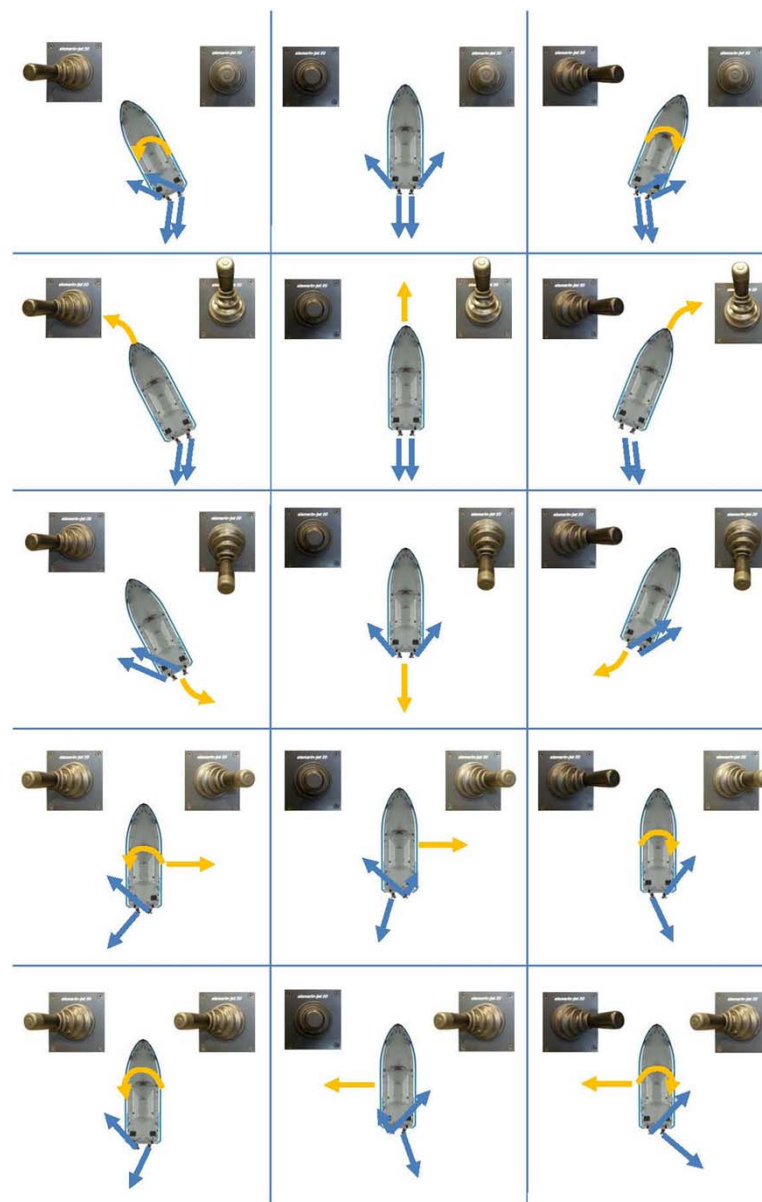
Manoeuvres

The system provides supreme manoeuvrability with simple machinery; no need for bow thruster.

Alamarin-Jet IO-system steering and boat movements.
Boat movement can be different from described depending on boat hull shape, currents and winds.

← Water flow → Boat movement

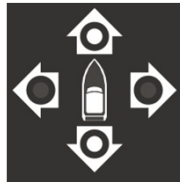
Intelligent Operation
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Drive modes

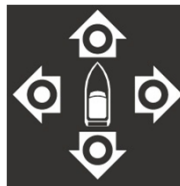
N-mode for normal forward-reverse drive.

Two arrows illuminated on the panel.



H-mode for sideways drive as well at reduced speed.

Four arrows illuminated on the panel.



Push the button on the top of the Right-side stick to change the mode.



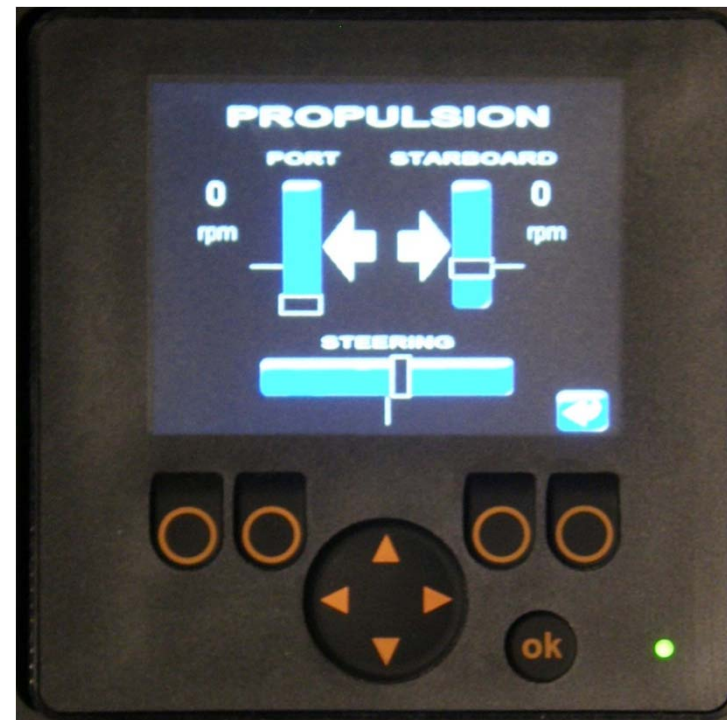
System display

Shows the control device positions, drive mode and jet shaft rpm.

Can be used for setting parameters and for system diagnostics.

Adjustable brightness.

Various extra features can be added in accordance with the customer's requirements.



Backup feature

In demanding marine conditions it is always necessary to be able to get back to dock, even in case of systems are not working properly.

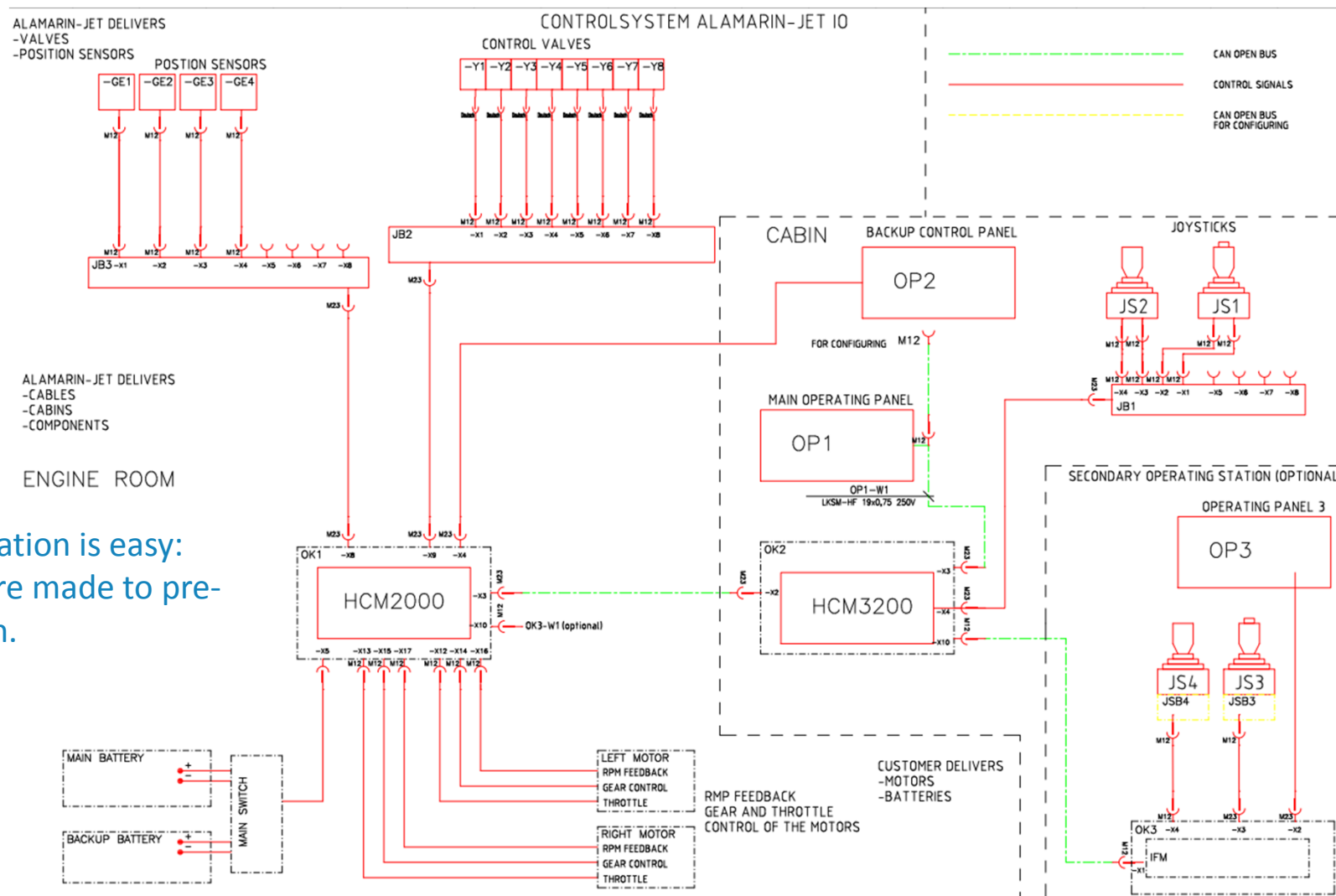
IO backup feature provides control of hydraulic system with 12V extra battery. Simple switches in backup panel are used to move steering nozzle and reverse deflector. Engine rpm can also be controlled with the panel potentiometers.

All of this is done independently of computers.



System schema

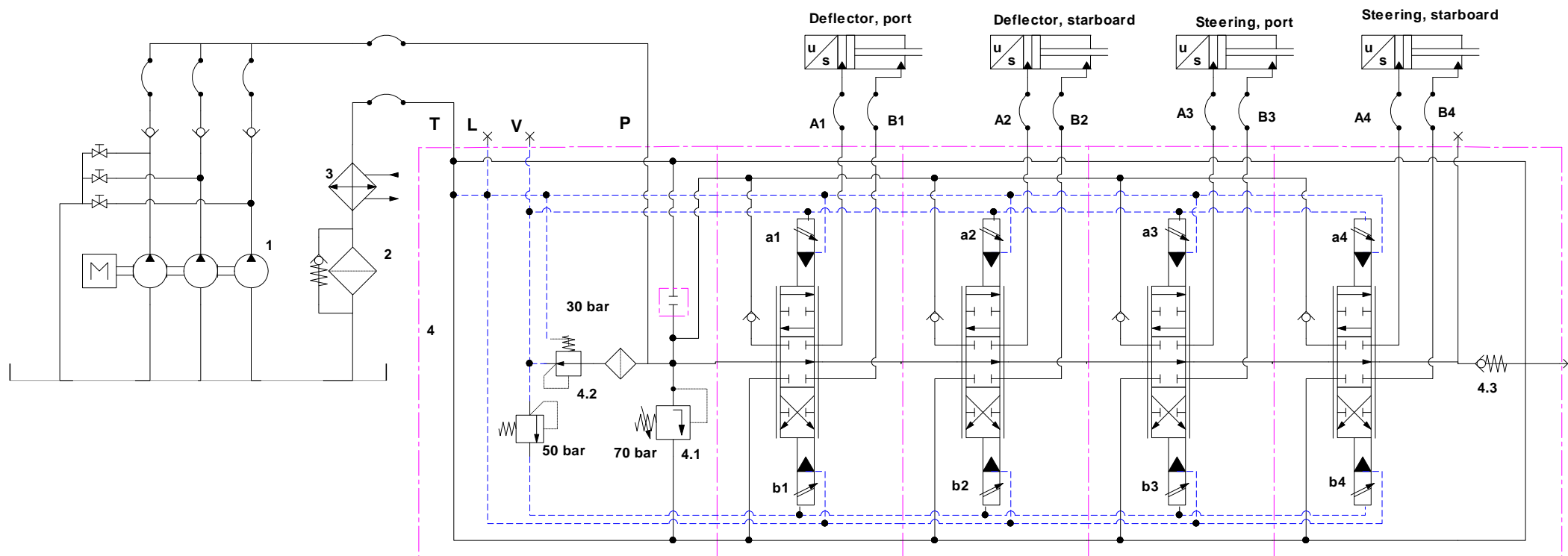
(four control cylinders)



On-site installation is easy:
main cables are made to pre-
defined length.

Hydraulic schema

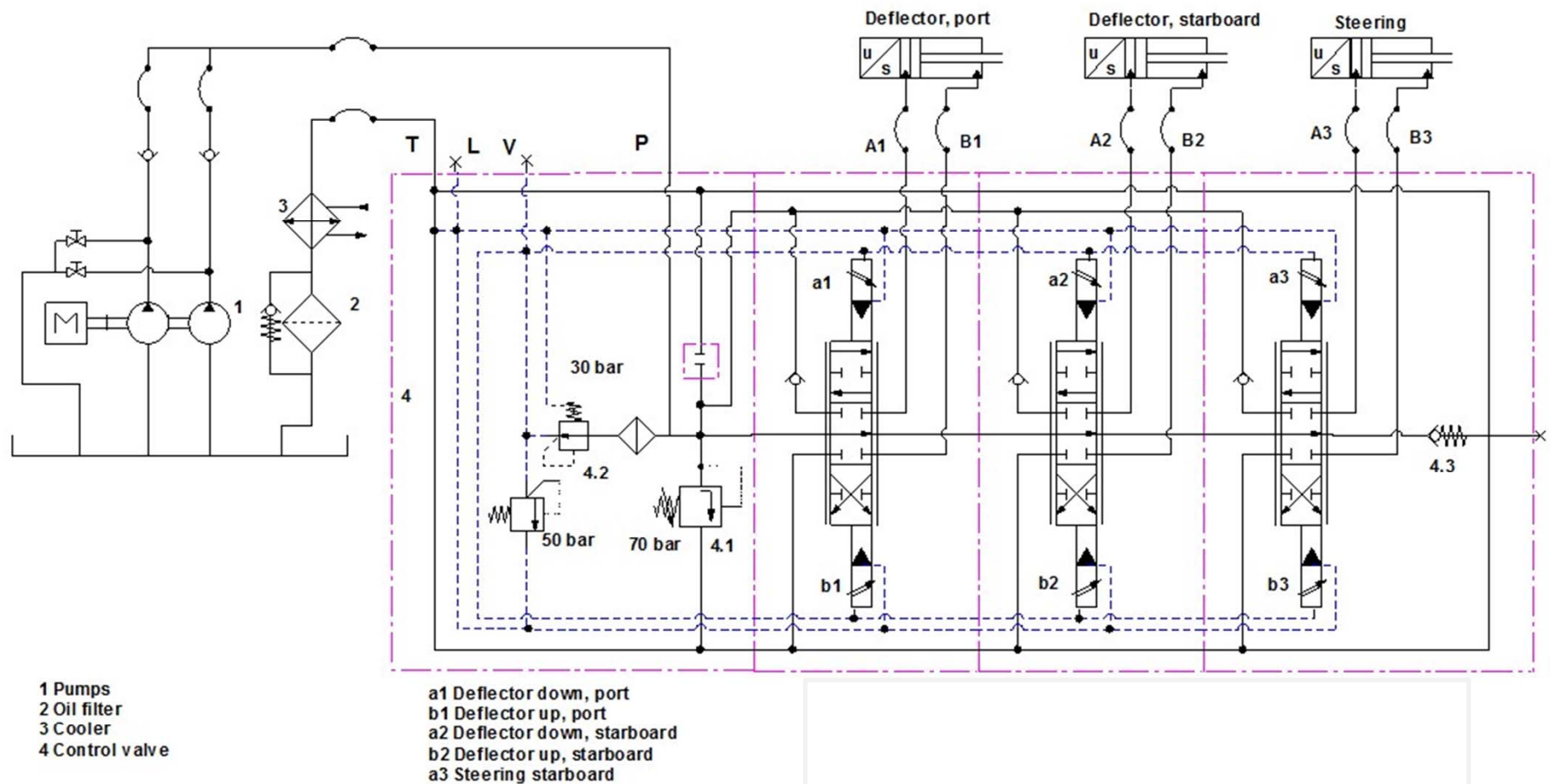
(four control cylinders)



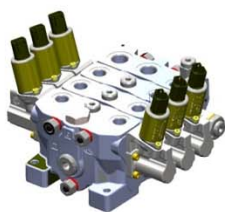
- 1 Pumps
- 2 Oil filter
- 3 Cooler
- 4 Control valve

- a1 Deflector down, port
- b1 Deflector up, port
- a2 Deflector down, starboard
- b2 Deflector up, starboard
- a3 Steering starboard, port Steering
- b3 Steering port, port Steering
- a4 Steering starboard, starboard Steering
- b4 Steering port, starboard Steering

Hydraulic schema (three control cylinders)



Components



8.



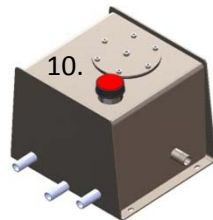
9.



7.



6.



10.



11.

Engine compartment



5.



3.



4.



2.



1.

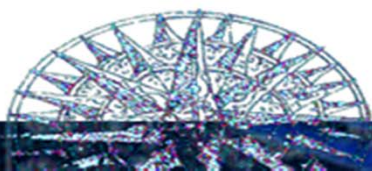
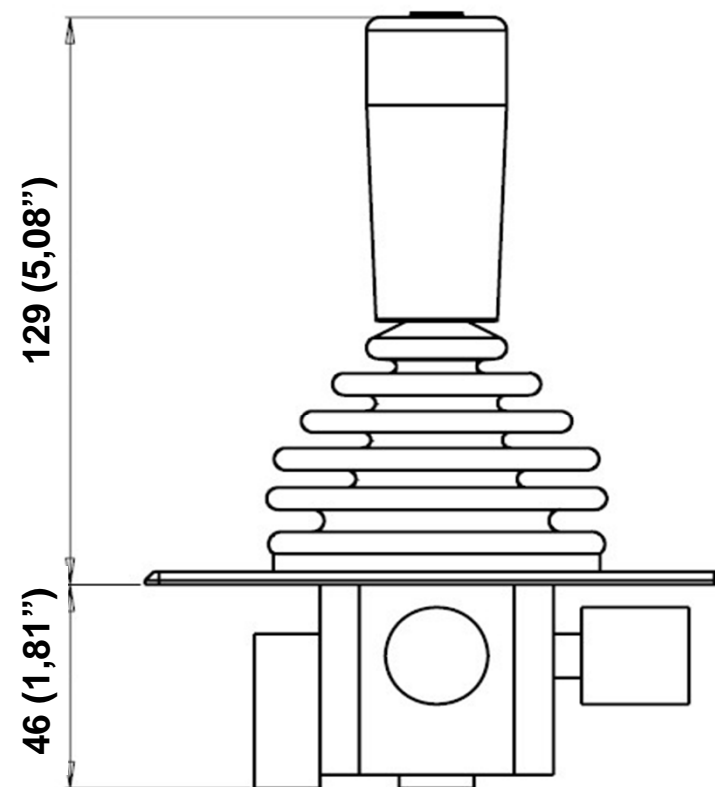
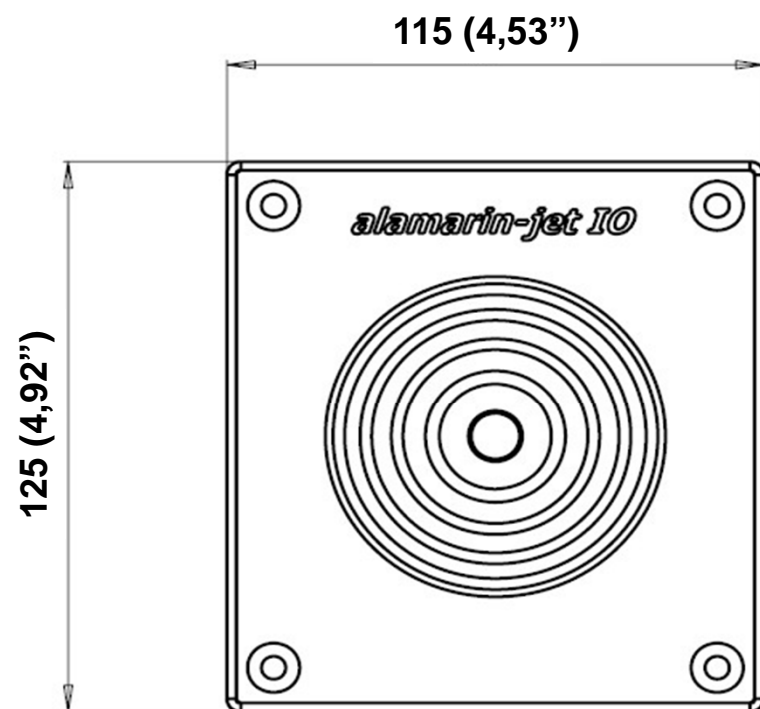
Joysticks and panels

Cabin

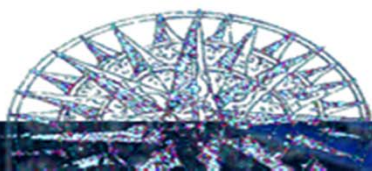
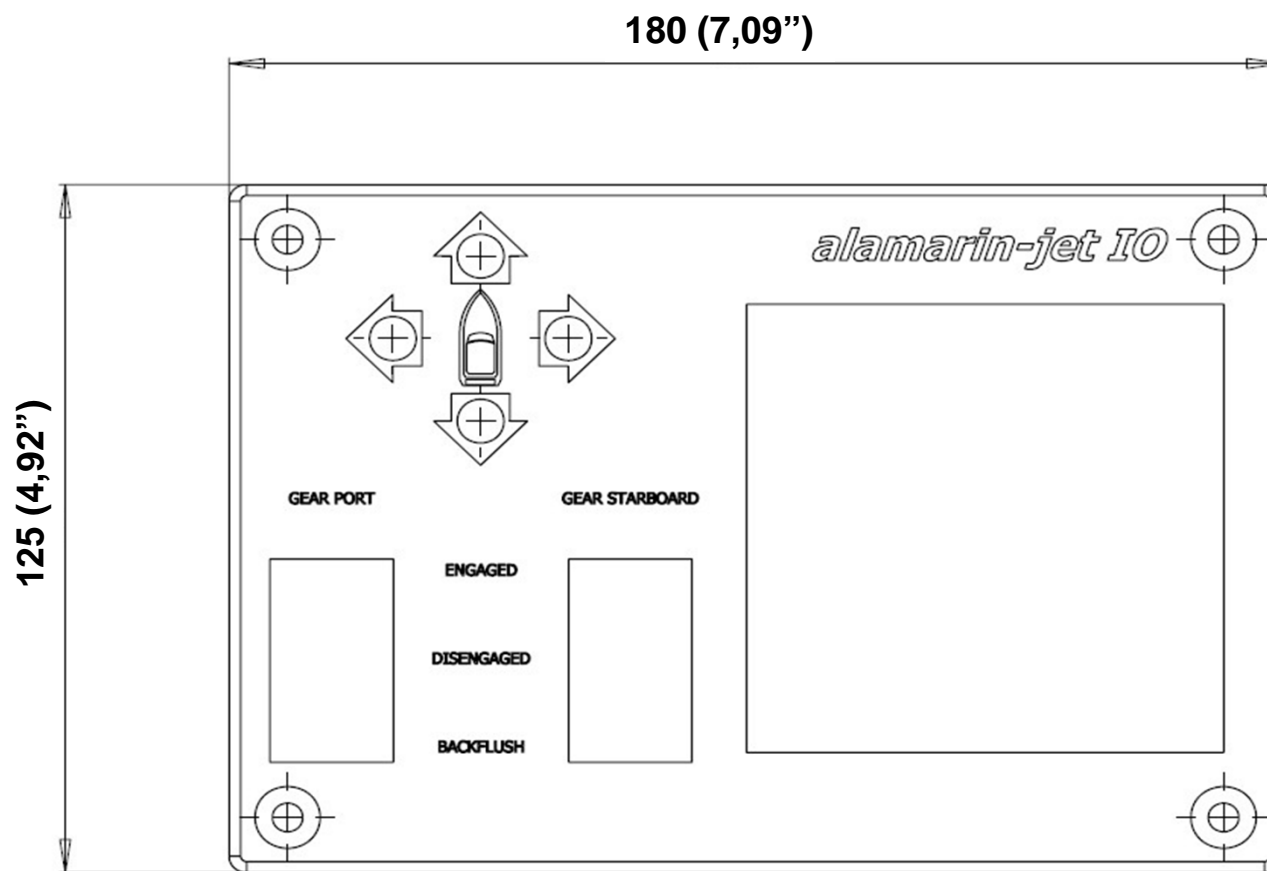


- 1: OK2. Control unit 2.
- 2: JB1. Connecting panel 1.
- 3: JS1 and JS2. Joysticks 2 pcs.
- 4: OP1. Main control panel.
- 5: OP2. Backup control panel.
- 6: OK1. Main control unit.
- 7: JB2. Connecting panel 2. For connecting #6 and #8. Same as #2.
- 8: Hydraulic block.
- 9: JB3. Connecting panel 3. For connecting control cylinders and #6. Same as #2 and #7.
- 10: Oil reservoir.
- 11: Steering cylinder.

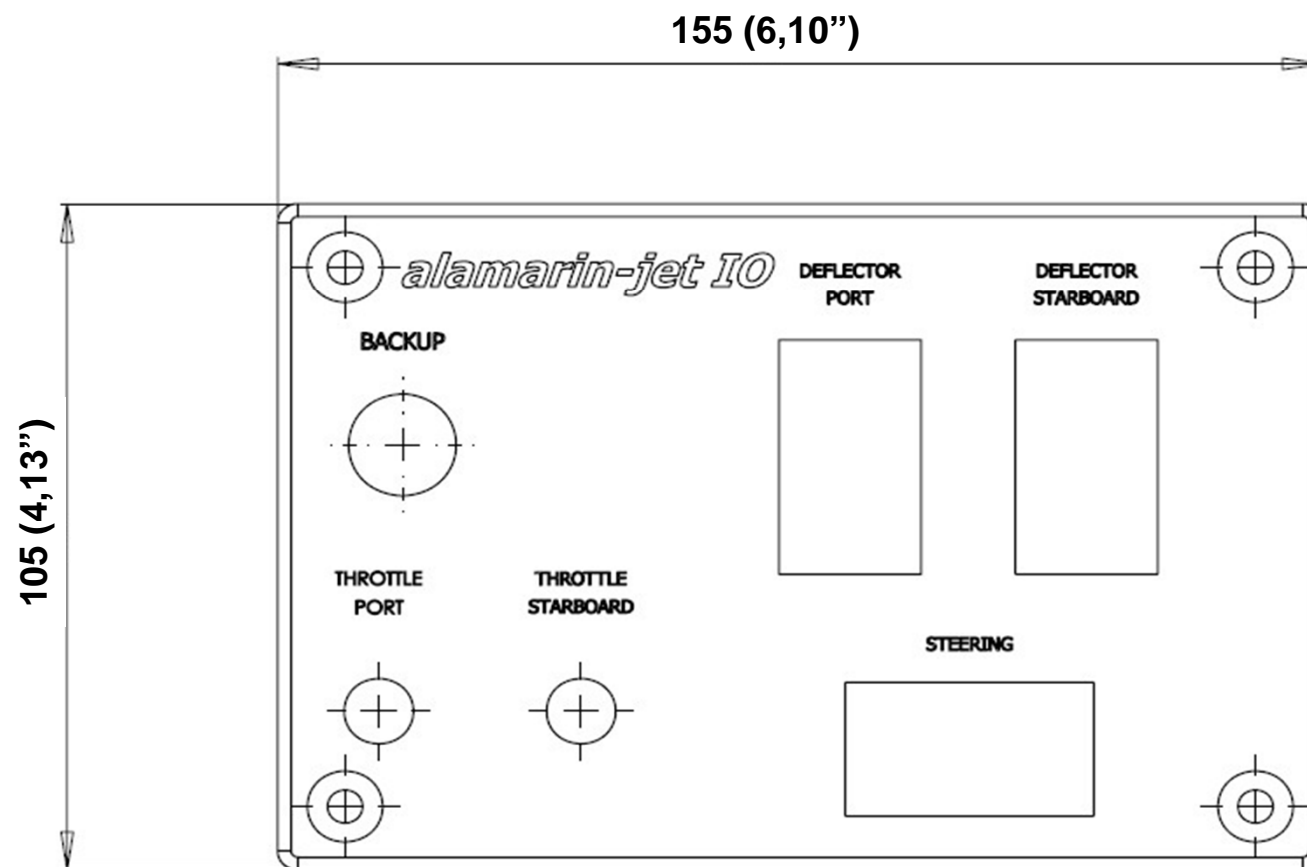
3: JS1 and JS2. Joysticks 2 pcs, outline dimensions. Located at the seat arm rests.



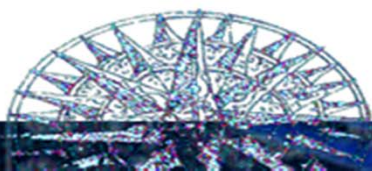
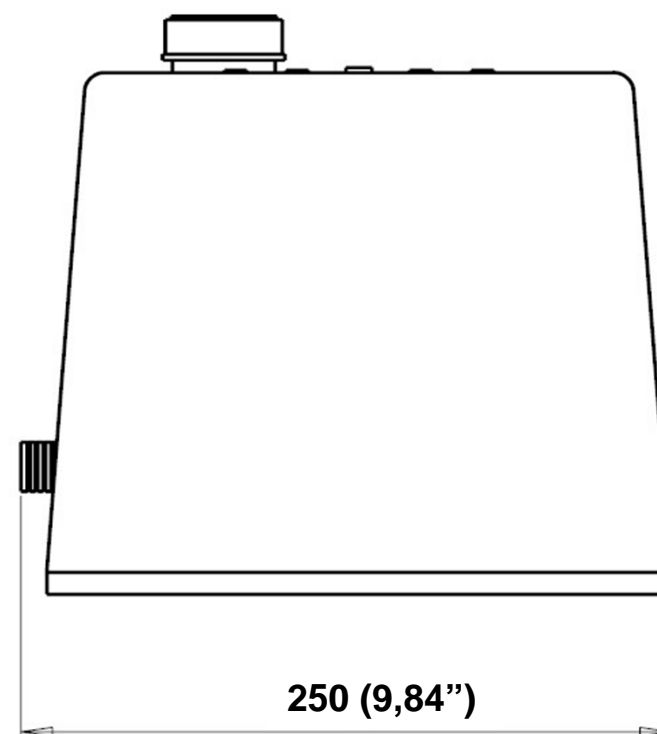
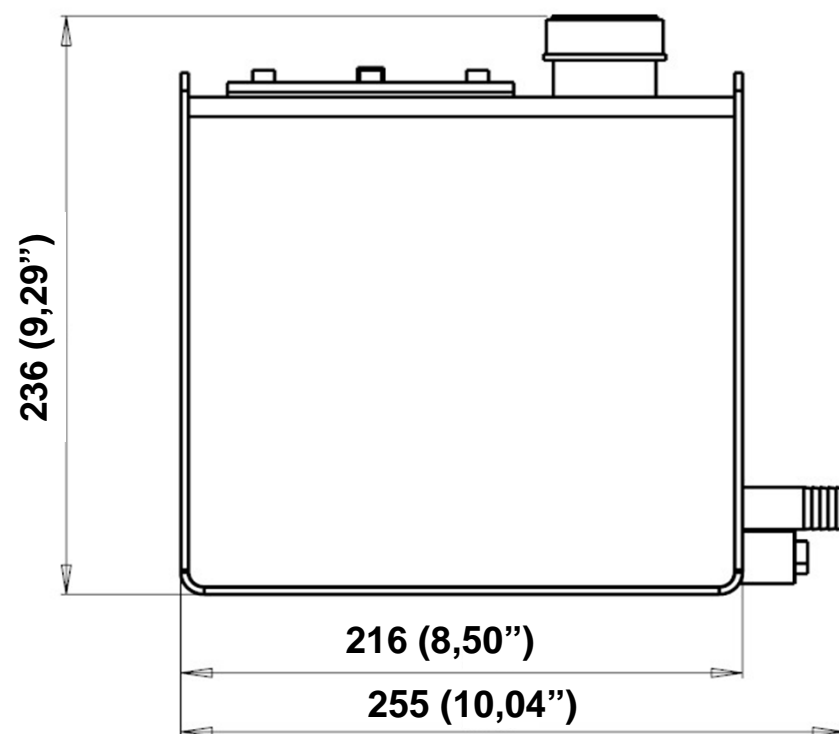
4: OP1. Main control panel, outline dimensions. Located at the dashboard.



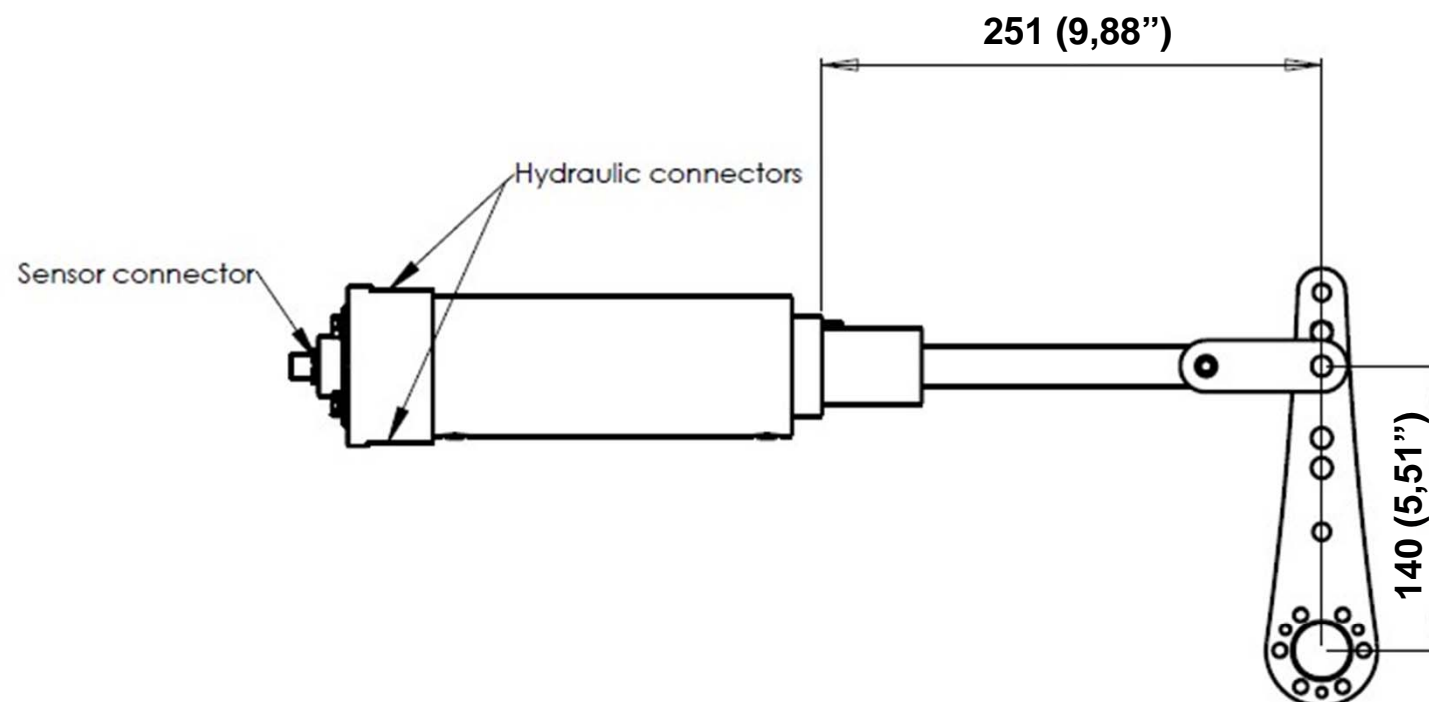
5: OP2. Backup control panel, outline dimensions. Located at the dashboard.



10: Oil reservoir.



11: Steering cylinder



Middle position dimension.

Steering lever movement $\pm 25^\circ$
equals to $\sim 60\text{mm}$ cylinder stroke.
($60\text{mm} = 2,36"$)