# FLEX 2 CCR designed and manufactured by





### **Primary controller**

The Shearwater Petrel 3 DiveCAN ppO2 controller is connected to the CCR head by the watertight X-connector rated up to 300m.

### Main features:

- Two PPO2 set-points, each can be set between 0.5 and 1.5
- Depth, time, ppO2 readings and deco display
- Stack-Timer for the scrubber
- Trimix decompression with 5 CC and 5 OC preset gases
- Strong vibration alert system
- Up to four pressure transmitters for gas pressure monitoring
- Digital compass tilt compensated
- No lockout from violating deco stops.

### Head Up Display

The Shearwater DiveCAN HUD is a compact 3x4 LEDs display showing ppO2 readings from each sensor. It is completely independent of the controller and is connected to the head by the watertight X-connector rated up to 300m. The HUD is attached to the BOV using the adjustable holder.

### NERD 2

The Petrel 3 Controller can be replaced with Shearwater NERD 2 Controller.

The HUD can be replaced with **Shearwater NERD 2 Monitor** as a secondary ppO2 monitor and full Trimix deco computer.





### **Breathing loop**

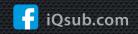
is equipped with side-mount BOV Neo and soft comfort breathing hoses made of black silicone.

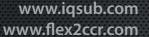
The entire breathing loop has easy-to-use click-lock bayonet couplers for easy assembling and maintenance.

> Optional on request, the breathing loop can be equipped with the Side-mount DSV.



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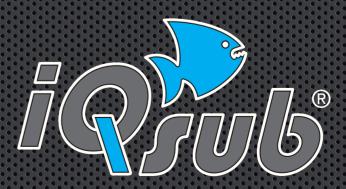






**CE** certified Flexible side-mount Rebreather powered by **SHEARWATER** 

DESIGNED AND MANUFACTURED BY







# Powered by **SHEARWATER**

### Main features

- \* Most User-friendly design
- \* Variable configuration
- \* Simple & Reliable
- \* Most Durable
- \* SM BOV Neo
- \* **C**€ certified

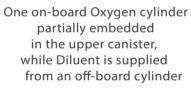
**FLEX2 CCR** is a flexible side-mount rebreather developed using years of our experience with respect to the needs of divers and explorers. Compact and ergonomically designed hardware facilitates easy tool-free assembly and maintenance.

### Radial Scrubber

quarantees comfortable breathing with a minimum operating time of 4,5 hours even in extreme conditions such as cold water of 4°C and depth of over 100m.



## Variable on-board cylinder configuration



Oxygen and Diluent cylinders fixed to the lower canister by quick release fasteners (fully independent CCR unit)

No on-board cylinder, while gases are supplied from off-board cylinders.

# Off-board gases

can be optionally connected via quick connect QC6 to Dil MAV (manual add valve).







### **Upper Canister**

The Upper Canister protects the Counterlungs and has a side door for easy access to the Counterlungs.

Its Top Head is the connection point for breathing and LP hoses and ADV. Adjustable ADV (automatic diluent valve) is integrated at the top of the upper canister.

**3D-shaped Counterlungs** are placed in the upper canister and are equipped with:

- \* click-lock bayonet couplers for easy assembling, cleaning and drying
- \* adjustable OPV (over pressure valve) with click-on lockers to the upper canister
- \* inner snorkel to prevent water from flowing to the canister and scrubber.

MAVs (Manual Add Valves) **OXY MAV** is used to easily add oxygen into the breathing loop. It is connected to the 1st stage Regulator on the on-board Oxygen Cylinder.

**DIL MAV** is used to easily add diluent into the breathing loop. It is connected to the on-board diluent cylinder or to an off-board stage tank using a quick connect QC6. DIL MAV has two additional outlets to supply ADV and SM BOV.



FLEX2 CCR Head is designed to have advanced air flow path to eliminate condensation on the O2 cells.

Shearwater controll electronics is built in the hermetic compartment inside the Head, it serves three O2-sensors ppO2 readings, setpoint maintaining, solenoid firing and HUD control. Primary and secondary ppO2 readings are electronically separated one from another. In the event of a short circuit on any sensor or cable, this doesn't affect the ppO2 reading on the other side and the electronics still carry on working and maintain the ppO2 up to surfacing.

The Primary controller and HUD are connected via the watertight connector, rated up to 300m (made of AISI 316). The entire Shearwater electronics has very low power consumption. Two independent replaceable Li-Ion batteries 18500 are located in the sealed compartments on the head, out of the breathing loop. Battery #1 powers the solenoid, battery #2 powers the HUD. The controller has its own AA battery.

The batteries ensure continuous operation of the unit for dozens of hours.

Three O2-sensors are placed in the easily removable cartridge making it easy to dry up, check or replace the sensors.

**Solenoid** is rated up to 17 bar and is equipped with built-in O2-filter.



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