

OxyGuard[®] Pacific



Complete Process Control System for Aquaculture



for Small Systems



for Large Systems



for Sea Cages



for Fish Transport

1.

Pacific for Small Systems

Pacific is a measuring, monitoring and control system designed for use in fish farms.



Up to 20 probes:

Wired
Wireless

P-NET

API - Interface
TCP/IP/Modbus
USB
etc.

Combination of relays
and digital
inputs/outputs
(up to 30 of each)

Built-in data logger
Touch screen
Colour display
Email
SMS and call
notifications

It is both multi-channel and multi-parameter, and forms a modular small size complete system. A member of the Commander series of equipment, it can be used both as a stand-alone system and as a part of a larger Commander Pacific system.

Other components for more functionality

- Digital probes: DO optical, Salinity, TGP, O₃, CO₂
- Analogue probes: DO, PH, Redox (ORP), CO₂, Temp

Pacific Main / Pacific Combi

- 4 analogue probes
- 2(0) digital probes *
- 6 on/off inputs
and/or outputs
- 6 output relays

Pacific Main XD / Pacific Combi XD

- 3 analogue probes
- 4(2) digital probes *
- 6 on/off inputs
and/or outputs
- 6 output relays

Pacific Main AI / Pacific Combi AI

- 2 analogue probes
- 2(0) digital probes *
- 5 on/off inputs
and/or outputs
- 5 output relays
- 4 mA inputs/outputs

Pacific I/O

- 2 digital probes
- 10 on/off inputs
and/or outputs
- 10 relays

Pacific Probe

- 8 analogue probes
- 2 digital probes

Pacific Probe Unit XD

- 14 digital probes

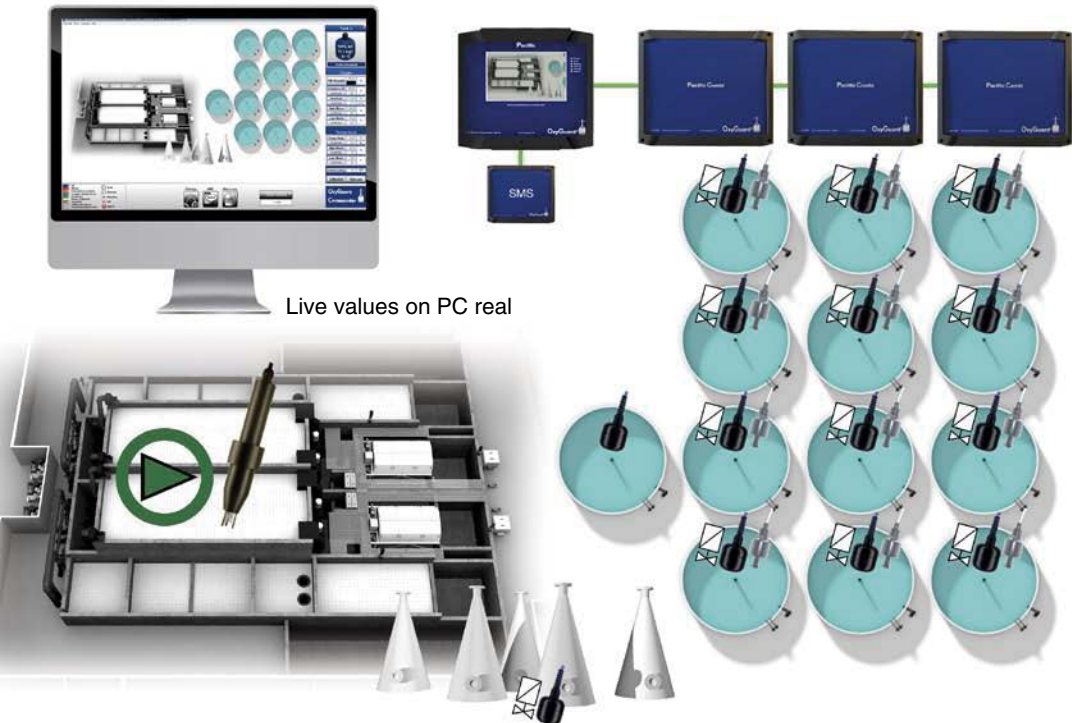
Pacific Analogue (4-20 mA)

- 2 digital probes
- 8 mA inputs/outputs
for active and passive
devices such as
sensors, flow meters,
etc., or control of
valves, pumps, etc.

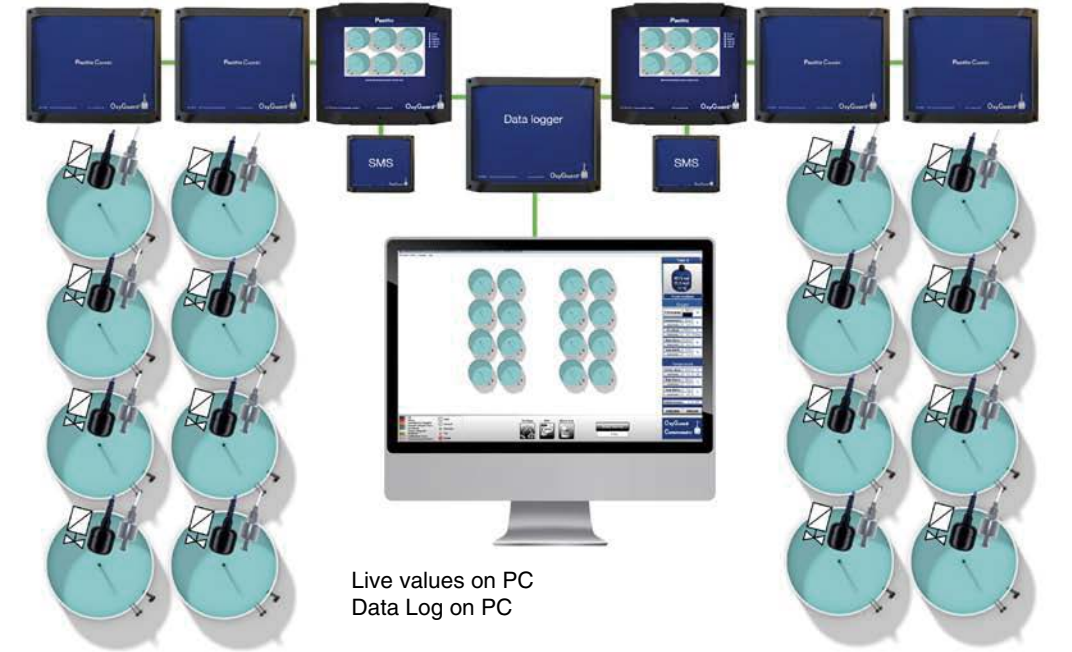
* Note that when a Pacific Main Unit is combined with one or more extension boxes, fewer or no digital probes can be connected.

Complete system with software and SMS

Combi Units with temperature probes, water level sensors and valves



2 independent Pacific systems with the same software



2.

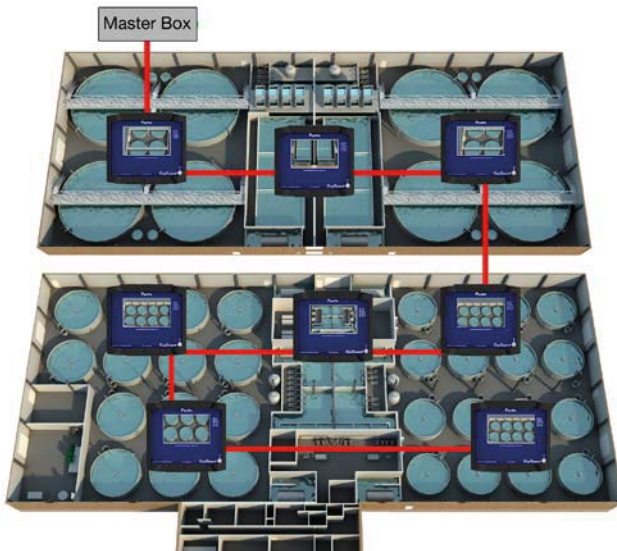
Pacific for Large Systems / Commander Pacific

Commander Pacific systems are process control systems that can be made to any practical size and can monitor and control everything on the fish farm!



Dissolved oxygen - Temperature - pH - CO₂ - Level - Filters -
Feed Machines - Pumps - Lighting - Alarms - Data Logging, etc.

Commander Pacific is formed by combining small Pacific systems into one big system.



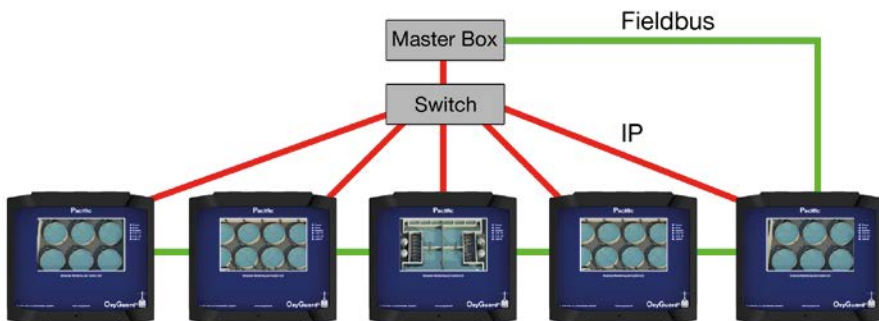
Local indication provides total control of the designated area

You can:

- Assign set points
- Calibrate
- Monitor and control

A log-in function makes it possible to control data access

High security, as each Pacific system controls its own area



Fieldbus and IP give you two separate networks to guarantee that you will always stay connected!

Commander Software



Total Control

You can zoom in on any part of your farm to see full details of every measurement, pump, valve, etc. and keep full overview while you do so!



OK
Alarm
Warning
Oxygen Dose
Manual
Disabled
Calibration Error
Communication Error



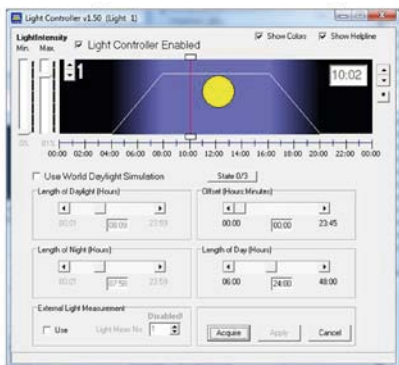
Total Overview

Your whole system appears on the screen of your PC. A colour code shows you what's happening. Red indicates that there is an alarm. It takes you less than a second to check your entire farm!

Get alarm notifications **ON THE GO!**

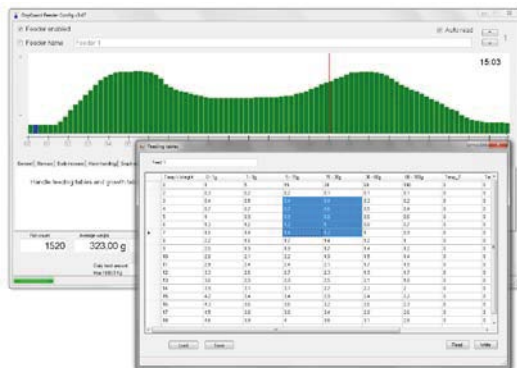
You can get alarm notifications via text message (SMS) and "communicate" with your system by responding to it!

With Commander Pacific you can simulate daylight anywhere!



Commander has an artificial daylight program. This can control fluorescent or LED lamps with analogue or DALI signals.

The Commander Pacific daylight program is also a feeder control program!



The feeder program stores data

Pacific Web Interface

OxyGuard's new web interface software makes Pacific systems more versatile and even easier to use.

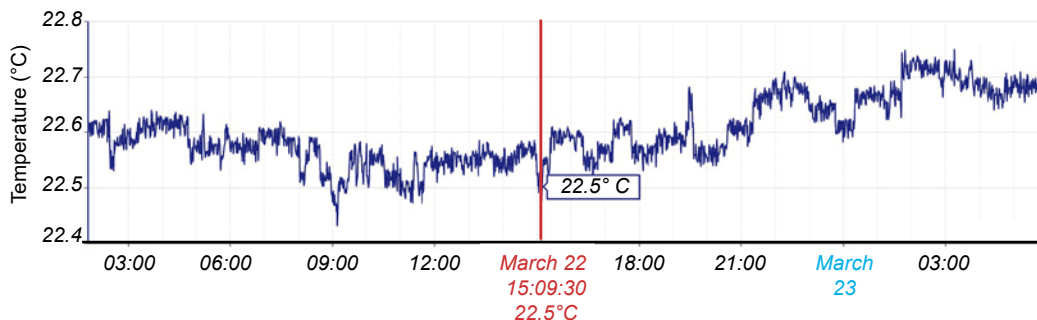
The new Web Interface software makes it very easy to access a Pacific. The owner of a small farm can use any local computer or even smartphone anytime, anywhere to assure himself that all is well.

Large installations can be divided into sections, so that staff "on the ground" can know when something nearby needs attention.

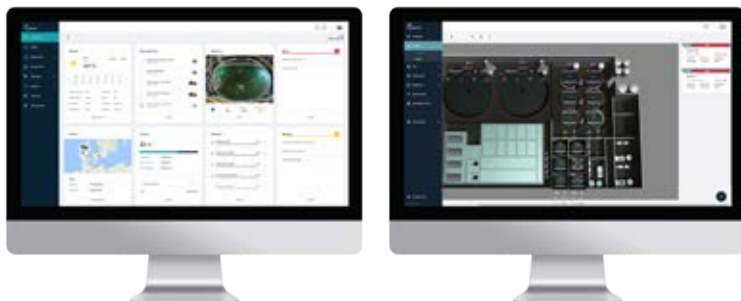


By logging in to the Pacific Web Interface you can:

- See the overview of your system
- Details for every probe
- Log and Graphs
- Change system configuration



Pacific is compatible with Cobália, the new cloud-based farm management system.
Read more on www.cobalia.com/welcome



3.

Pacific for Sea Cages and Pens

Wireless probes make installation easy.



Antifouling cap - for keeping the probe membrane clean



Wireless probe



Commander Pacific



One system can have up to 10 probes.
Wireless probes can be placed 100 meters from each other.



4.

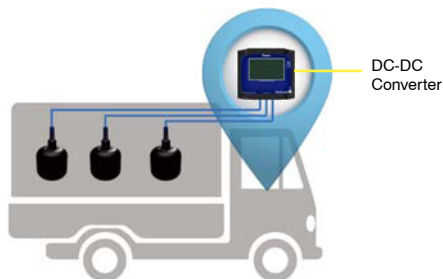
Pacific for Fish Transport / Convoy Pacific

Convoy Pacific is the system for transporting live fish. It can be used for both vehicles and boats.

Pacific Convoy is very versatile and is individually customised to fit your needs. Below are 3 examples of different system combinations. Keep in mind that these are just examples and that your system can be put together differently.

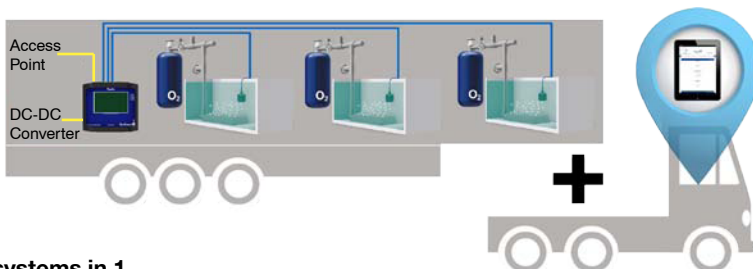
Example 1: Monitoring

This system consists of probes measuring dissolved oxygen (DO) and temperature and a Pacific Main Unit (placed in the cabin) monitoring the conditions.



Example 2: Monitoring and Control

This system consists of DO probes and a Pacific Main Unit (placed under the tanks) monitoring and controlling the DO level and injecting oxygen when conditions are critical. Pacific Main Unit is connected to the access point establishing a local network. You can keep an eye on what is happening by using Pacific Web Interface on the tablet in the cabin. This type of system without wires gives a great advantage as the installation can be easily removed.



Example 3: 2 systems in 1

There are 2 systems with monitoring and control. Both systems are controlled from the Main Unit placed under the tanks on the truck. If you want to have two system that are independent from each other you can replace the Combi Unit (placed under the tanks on the trailer) with a Main Unit.

