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moldaenke

Newsletter January 2018

Dear Readers!

Welcome to our newsletter for January 2018.

In this newsletter, we are glad to introduce several innovations of our devices. Most of the changes concern the FluoroProbe. We offer the FluoroProbe titanium version for long-term measurements in sea water. Additionally, a submersible Probe with photosynthetic activity measurement - the FluoroStar is under development. Furthermore, the FluoroProbe III is now available for online connection and powered externally.

Last but not least the *Tox*Protect64 will be replaced by the *Tox*Protect64 II from now on.

With our best regards, bbe Moldaenke

FluoroProbe Titanium Series (FluoroProbe III Ti)



Up to now the FluoroProbe III was mainly used for profiling of phytoplankton in fresh water and for short-term measurements in sea water. However, sea water microalgae widely contribute to primary production in oceans and coastal areas and are increased in the focus of investigations. Extended or long-term use in sea water poses additional challenges for materials. Titanium housing is the solution to avoid corrosion under these harsh conditions. Look for the FluoroProbe III Ti if you need a robust probe in a rugged environment.

Currently, the FluoroProbe III Ti is only approved for depths up to 100m or 300m. The FluoroProbe III Ocean will soon be available in a titanium housing for 1000m maximum depth and replace the 1000m steel FluoroProbe III. Cables and Autostart plug of FluoroProbe III Ti are modified to be used with the titanium connector.

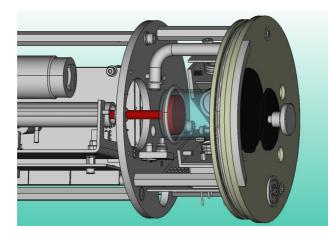
riuoroprobe III goes online

Due to increased demand for a prolonged deployment of the FluoroProbe underwater and data transfer in real-time, we now offer our FluoroProbe III online. This FluoroProbe is powered by an external power supply.

The FluoroProbe III online is advantageous for the use on buoys or platforms in the water with wireless data transmission. The Probe does not have an internal battery.



FluoroStar - Submersible Probe with Activity Measurement



Nowadays depth profiles for phytoplankton analysis are limited either to algae class determination (FluoroProbe III) or photosynthetic activity measurements. Things will change with the new submersible probe - the FluoroStar.

The FluoroStar enables with a new technique to identify the distribution of algae classes, their chlorophyll content and their ability to perform photosynthesis (activity).

The FluoroStar is currently under

development and will be an advancement of the established bbe AlgaeOnlineAnalyser.

As you know, the measurement of algae's photosynthetic activity needs a dark adaptation to reach the basic energy state of the pigments. This is ensured by an internal chamber of the sensor where the microalgae at a defined depth are separated from the surroundings. Weak and strong light pulses provide the fluorescence response as variable fluorescence which is used to determine the photosynthetic activity and the algae classes. For continued profiling the content of the internal chamber is exchanged.

Redesigned: the *Tox*Protect64 II comes along with a new outfit and replaces the proven *Tox*Protect64.

For the wellness of the fish the recommended aquarium aeration and the 500W heater are now included as a standard.

Further improvement is a Windows $^{\text{\tiny M}}$ based industrial PC with a touchscreen together with the new bbe ToxProtect software. Modbus TCP/IP facilitates easy access to the data and provides remote alarm transmission.

The *Tox*Protect64 II is top class among available fish toximeter for an affordable price.





More Information at bbe-moldaenke.de .



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bbe Moldaenke GmbH Frederike Lohse Preetzer Chaussee 177 24222 Schwentinental Deutschland

0431-38040-0 bbe@bbe-moldaenke.de