

PRESS RELEASE

Hamilton looks back on a year full of innovations

Interest in sensors shows need for new technologies

(Bonaduz, 01/19/2023) - Hamilton Process Analytics, a business unit of Hamilton Bonaduz AG, looks back on a successful business year 2022. Despite a challenging environment, supply chains were maintained and several innovations were launched.



Innovations in dissolved oxygen and total cell density measurement in bioreactors

"Last year was very rich in innovations," explains Daniel Egger, Global Marketing Director Process Analytics at Hamilton Bonaduz AG, elaborating that several trend-setting new products found their way into the market in recent months.

One of these was the new "VisiFerm RS485" sensor, which enables reliable optical measurement of dissolved oxygen. The advanced sensor and cap design allows users to greatly reduce calibration frequency and an extend lifetime.





Last year, Hamilton Process Analytics also achieved a breakthrough in the field of total cell density measurement: the optical sensors available on the market to date work with only one light detector, which measures either the transmission through the cell medium or the light reflected by the cells, and is thus only suitable for a limited cell concentration measurement range in the bioreactor. To solve this problem, the innovation team equipped the new total cell density sensor "Dencytee Arc" with a second light detector so that it measures both, reflected and transmitted light. This allows Dencytee Arc to provide reliable readings linearly across the entire measurement range, in both low and high cell concentrations. As a result, the new sensor enables real-time control of bioprocesses depending on cell density and relieves bioreactor operators of the tedious and error-prone task of sampling for cell density measurement. Like every Hamilton "Arc" sensor, Dencytee Arc has built-in sensor intelligence that, when combined with ArcAir software, provides users with numerous functionalities, such as predictive diagnostics and more.

The ArcAir software has been available for a few weeks in version 3.8.1, which offers users several more features and optimizations. In addition, the software is now compatible with Android 12.

Expanded single-use portfolio

The further developed sensor portfolio for use in single-use environments rounded off the innovative range of services offered by the experts from Bonaduz last year. Hamilton Process Analytics now offers single-use sensors for the most important process parameters in the bioreactor: pH, dissolved oxygen, viable cell density as well as conductivity. These sensors combine the reliability and measurement accuracy of Hamilton's proven sensors with the special requirements of single-use applications.

New Vice President Process Analytics

Hamilton could also announce an important personnel change last summer. Dr. Philipp Arquint now leads the fortunes of Hamilton's Process Analytics business unit. Arquint has already been with the company for 22 years before taking over the position of Vice President ad interim in early 2022 and Vice President in his area in the summer.

"We are generally very pleased with our development over the last few months and are seeing a lot of interest in our new sensors. This clearly shows how much innovative measurement solutions are needed by the industry. Over the past few months, we have



once again been able to demonstrate our reputation as an innovation driver and show that we are responding to the demands of the market," Daniel Egger sums up.

About HAMILTON Process Analytics:

Hamilton Process Analytics, a division of Hamilton Bonaduz AG, pioneers open sensing solutions to enhance the understanding and control of critical process parameters, including pH, ORP, CO₂, conductivity, and dissolved oxygen as well as total and viable cell density. First introduced in 1989, Hamilton sensors are found worldwide in applications ranging from biopharma to power generation to brewing. Hamilton continues to lead the industry with new innovations such as intelligent sensor management via Arc wireless technology, and single-use solutions to significantly reduce risk of contamination. Each Hamilton offering is supported by a full portfolio of accessories including armatures, transmitters, cables, buffers, and standards.

Hamilton Bonaduz AG is the European counterpart of Hamilton Company, founded by Clark Hamilton in 1960 and headquartered in Reno, Nevada, USA. With more than 2,500 employees across global manufacturing facilities and subsidiaries, Hamilton is a leader in numerous fields including automated liquid handling robotics, automated sample management, medical ventilators, laboratory products, and process analytics.

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