

Save resources on your CIP

Save water, cleaning agents, and costs with the high-speed Combilyz conductivity sensor from Baumer.

Milk, water, lye, water, acid, and water again: Cleaning a system for processing and filling food (clean in place, CIP) consists of an intricate choreography of process steps, during which different liquids alternately flow through the pipes and tanks. As these media cost money and burden the environment they should be used as sparingly as possible and recycled. The Combilyz conductivity sensor from Baumer is an indispensable assistant for the phase separation of food materials, water and cleaning agents. It measures the electric conductivity of the flowing medium very precisely and uses this as the basis to deduce the type of medium and its concentration. At the same time, it is faster than comparable sensors available on the market – thanks to the short reaction time of the temperature compensation, the precise measured value of the conductivity is available within only 15 seconds, as opposed to after 50 seconds as with competitors' sensors. Accordingly, the control can react faster and separate the individual phases by actuating valves.

Saves 100,000 liters of water per year

"Calculations have shown that food-processing plants using the Combilyz conductivity sensor during the clean-in-place process have a substantial cost reduction for water and cleaning agents," em-



phasizes Stefan Blust, Food & Beverage sector manager at Baumer, adding that this considerably increases the overall equipment effectiveness (OEE). The great savings potential is demonstrated by Granarolo, Italy's largest dairy processing operation. At its plant in Bologna, tanks, pipelines, and thermal treatment systems are cleaned up to 30 times per day. "Thanks to the quick temperature compensation of the Combilyz, we can save more than 100,000 liters of water per year at every measuring

Baumer Group

The Baumer Group is an internationally leading manufacturer of sensors, encoders, measuring instruments and automated image-processing components. Baumer combines innovative technology and customer oriented service into intelligent solutions for factory and process automation and offers a uniquely wide range of related products and technologies. The family-owned company has around 2,700 employees with manufacturing facilities, sales offices and agents in 38 offices and 19 countries, always close to the customer. With consistently high quality standards worldwide and a huge potential for innovation, Baumer brings their customers critical advantages and measurable added value across many industries. For more information, visit www.baumer.com.



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point,” explains Bruno Landuzzi, the responsible manager for maintenance and pasteurization at Granarolo. Companies who want to find out how much they can save can do so with the help of the Savings calculator CIP from Baumer.

The secret of the quick temperature compensation of the CombiLyz AFI is its lid made of PEEK plastic with a one-piece hygienic design. It contains the inductive sensor elements for measuring the electric conductivity and the temperature sensor. The sensor tip has a low thermal mass and a low thermal transition resistance, allowing the temperature sensor to react very quickly to even very great temperature fluctuations. Only sensors with two-part lids, in which the tempera-

ture sensor is located underneath metal, are faster. However, frequent temperature fluctuations wear off the transition between plastic and metal, causing these sensors to fail more frequently and making them not safe for use with food.

Usability “Beyond the Standard”

The short reaction time is only one of the distinguishing features of the CombiLyz AFI. It also sets new standards when it comes to user friendliness. The colored touch display enables easy parameterization, and freely definable conductivity areas can be allocated to any display colors, for example, blue for water and red for acid. This way, it can be seen from a distance which medium is passing through

the pipes at any given moment. The sensor transfers its measured values via a 4...20mA interface with optional HART protocol. In addition to the standard version, CombiLyz AFI4, in which the entire sensor is contained in a single housing, there is also the CombiLyz AFI5 for tight areas. In this version, the sensor element and display are separate and connected via a cable, which facilitates its positioning. No matter which variation the user chooses, both have an IP69k stainless steel housing, which means they are suitable for high-pressure steam cleaning. ●

Further information:

www.baumer.com/savings-calculator

Water conservation made easy

Savings of up to one million liters of media



Increased efficiency with the same food safety

The *CombiLyz*® AFI provides tremendous media savings during phase separation in the CIP process. Up to one million liters per year can be saved for each measuring point with the quickly reacting, hygienic, and robust conductivity sensor.

Use the CIP calculator to calculate your savings potential:

www.baumer.com/save-resources



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