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Plato, Brix and dry matter - Inline measurement, online processing

Quality monitoring and resource efficiency

In order to produce food with the greatest care, industrial processes must be continuously analyzed and monitored. Critical process parameters such as the concentration in beverages and liquid products can be monitored inline and thus directly in the process. The measurement data are available online and in real time. Using inline analyzers minimizes the efforts and costs caused by manual sampling and delayed lab results.

The LiquiSonic[®] inline analyzer by SensoTech measures precisely and directly in pipes or vessels the concentration of ingredients in beverages and liquid food. The measurement data are transferred online to PCs or process control systems. Measuring the concentration of original gravity (Plato) or alcohol, the analyzer is used in breweries. In the production of mixed and soft drinks or fruit juices, the LiquiSonic[®] sensors determine the Brix content. Moreover, the sensors measure the dry matter content in the production of whey drinks or other liquid dairy products (LDPs).

Monitoring the product quality continuously and in real time, avoids failed batches. Furthermore, the inline concentration measurement enables a resource-efficient process control to save energy and raw materials.

The LiquiSonic[®] technology is based on sonic velocity measurement providing highprecision, stable and every second updated concentration values. Compared to other inline measurement techniques sonic velocity meters are extremely robust, maintenance-free and can be integrated without bypass in the process. The LiquiSonic[®] sensors are installed directly in main lines of any size, or in vessels. The sensor design meets the high-hygienic requirements of the food industry and some sensor types are 3-A certified.



The LiquiSonic[®] controller displays the measurement values and stores the data. The trend view allows the tracking of the process. If the measurement value exceed or fall below thresholds, a signal will be sent immediately. For process automation, the measurement data can be transmitted via 4-20 mA signal, fieldbus (Profibus DP, Modbus), Ethernet or digital outputs.



SensoTech:

For 25 years SensoTech has been focused on the development, manufacturing and sales of inline analysis systems for process liquids. With worldwide installed, highly precise and innovative measuring systems for monitoring of concentrations, compositions and changes of chemicals as well as properties directly in the process, SensoTech has significantly contributed to the enhancement of the state of the art. In addition to the measurement of concentration and density, the phase interface detection as well as the monitoring of chemical reactions like polymerization and crystallization are typical applications. SensoTech inline analyzers set standards in the technological and qualitative valence, user friendliness and reproducibility of process values. Special calculation methods and sophisticated sensor technologies enable reliable and precise measuring results even under the most difficult process conditions.

The knowledge and the experiences of the highly motivated and committed SensoTech staff are the result of many different applications supported by wellknown customers from the chemical and pharmaceutical industry, food technology, semiconductor technology, automotive and metal industry as well as many other industries. In addition, these experiences also open up unimagined solution possibilities for new measuring challenges.

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