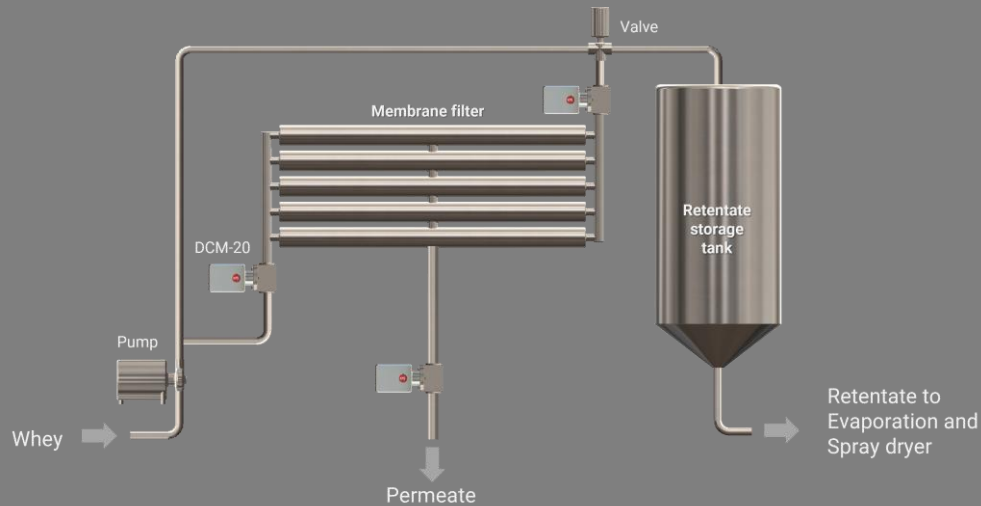


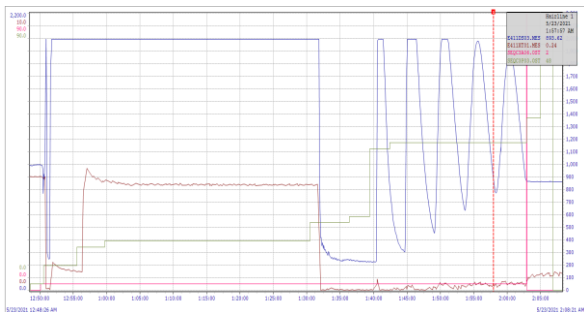
Inline optical Brix monitors drive product and process parameters in whey protein concentrate membrane filtration systems



Applications

Whey based ingredients: WPC/WPI, demineralized whey, calcium removal from lactose

Plant based food and drinks: Proteins from peas, rice, beans, nuts, and grains



Process

For high volume UF and RO plants, process control and downtime reduction whilst increasing efficiency are paramount. Therefore, KxS inline optical Brix monitor is designed to provide a reliable and robust instrumentation performance.

DCM-20 defines the whey protein feed to Ultrafiltration UF membrane filter systems allowing separation of protein (retentate) and lactose and minerals (permeate). In order to monitor filter performance, real-time Brix measurements are utilized in the UF membrane filter outlets.

Subsequently, Reverse Osmosis RO filters as an efficient high-pressure system for removing excess water from whey protein prior to evaporation will similarly be driven by the Brix monitor.

Both whey protein and lactose are finally concentrated in evaporators where the DCM-20 ensures the calandria performance for spray drying or crystallizing respectively.

Installation notes

DCM-20 inline Brix monitor, and more importantly in combination with its proprietary flow cell housing, stands out with test reports presenting proof of cleanability of the entire integration mechanics after CIP.

The Brix monitor meets 3-A design standards, is uniquely EHEDG certified, and pressure rated for 55 bar, 800 psi processes while also CIP clean compatible in RO and UF concentrate solids measurement. The distinct design offers scalable integration complying with EHEDG certification for a wide range of process pipe sizes.

Compared to a u-tube densitometer, the compact optical Brix monitor is easily mounted without restrictions by pipe orientation. The DCM-20 is mounted in either vertical or horizontal pipe sections. Retrofits in existing pipe bend connections are also accommodated for.

Filtration systems are not expected to require a measurement window wash system thanks to regular CIP intervals.

Product recommendation

The entire combination of the compact Inline Brix monitor DCM-20-H15 and single-piece flow cell housing SFC-H15-HPF is EHEDG certified and meets 3-A design standards with 3-A symbol authorization for scalable 1"..."4" pipe size integration.

Measurement range: 0-100 Brix
Accuracy: +/-0.10 Brix
CIP compatible

Modular Connection Unit MCU with optional electrical connections to the stand-alone DCM-20 Brix monitor.

