

Sensors help increase protein production

IO-Link opens up new fields of business in the dairy industry



Our customer:

A British manufacturer of dairy products is one of the pioneers of producing whey protein, help maximise muscle performance and can be used as an ingredient in food products. With this system, they always optimize their filtration processes, to extract high-quality protein from liquid whey.

In the food industry, highest standards in terms of hygiene and quality must be maintained. In order to meet these requirements and continue to serve the growing markets, our client is constantly committed to ensuring modern and reliable production processes.



The challenge:

In addition to perfect hygiene, high process reliability is indispensable in food production. The slightest contamination can lead to a recall or loss of production, resulting in high costs. In dairy processing plants, flow and pressure sensors are crucial components. The sensors must be fail-safe and at the same time easy to monitor and control. To enable hygienic production, all components must comply with hygienic design guidelines and typically feature stainless steel housings.



The wiring complexity of our customer's systems was high, since, for example, the sensors were all wired individually. The company wanted to move away from discreet wiring towards a plug & play solution which would reduce the installation effort. IO-Link products from ifm fulfil these requirements and meet high hygiene standards, which enabled our client to set up a modern system.

The solution – why ifm?

In their old system, flow and pressure sensors from other manufacturers were installed. Using ifm's IO-Link products, the company was able to implement the desired plug & play solution. The cabling complexity could be significantly reduced. Featuring M12 connectors and protection rating IP 69K, the IO-Link masters could be installed directly at field level. The shorter installation time means they can save on components and costs. The company opted for AL1103 type IO-Link masters. This ensures reliable transmission



of process parameters and diagnostic data to the control system. In addition to SM8100 and SM9100 flow sensors and PI2795 and PI2798 pressure sensors, TAD181 and TAD081 temperature transmitters are used.

Thanks to their self-monitoring function, they provide high process reliability, while their hygienic stainless-steel design meets the high requirements of the food industry. By digitising its process with ifm's IO-Link products, they have been able to meet the increasing demands of the market. The technology also helps the British company to save installation time and costs. Our client achieves high process reliability and avoids costly downtime and contamination.



Results:

- Quick plug & play installation
- Hygienic stainless-steel design
- Reduced wiring complexity
- Process reliability thanks to IO-Link technology



Easy and quick installation



Process reliability through IO-Link



Hygienic stainless-steel housing



ifm.com