



CALIBRATION

Precise sensor calibration for highest product quality

Reliable measured values for stable and transparent
production processes for maximum safety



Our customer:

A regional, family-run dairy

The company specialises in high-quality
and sustainable organic dairy products.



The challenge:

In dairies, precise and reliable measured values are essential for product quality. Pasteurisation is a key example. The milk is heated to 72-75 °C for 15-30 seconds to kill harmful microorganisms. Precise sensor values are crucial to ensure both food safety and consistently high product quality.



- Temperature sensors ensure precise heating and prevent overheating or denaturation of the products.
- Flow meters control speed and volume to ensure complete heating and sterilisation.
- Pressure sensors ensure smooth operation of the system.

Incorrect measurements can have serious consequences: from insufficient germ reduction to

quality defects and product recalls. This is why the dairy attaches great importance to high-precision sensors.

The solution – why ifm?

To ensure maximum safety and efficiency, the dairy relies on state-of-the-art sensors from ifm:

- TCC temperature sensors monitor the heating of the milk and report deviations immediately thanks to permanent self-monitoring.
- SMF flow meters measure the flow quantity as well as the temperature and conductivity - for even more precise process control.
- PI pressure sensors ensure constant system pressure and protect the system from damage.

To ensure the accuracy of the measuring equipment in the long term, the sensors are calibrated regularly - especially at critical control points (CCP). The dairy relies on ifm's calibration expertise. The sensors are tested by ifm in the factory before delivery and can be sent in by the customer for recalibration as required. The calibration certificate documents the target/actual comparison of the reference device and test specimen and provides the basis for audit-compliant quality management. The transparency gained about measurement deviations means that calibration

factors in the device or parameters in the controller can be adjusted independently, minimising measurement errors. Depending on customer requirements and national specifications, you can choose between ISO, A2LA and DAKKS calibrations for both initial and recalibration.



Results:

- Long-term reliable measured values
- Documented target/actual comparison for maximum transparency
- Maintaining consumer protection
- Batch safety and avoidance of product recalls
- Audit-compliant quality management



Quality assurance



Traceability



Securing trust and image



ifm.com