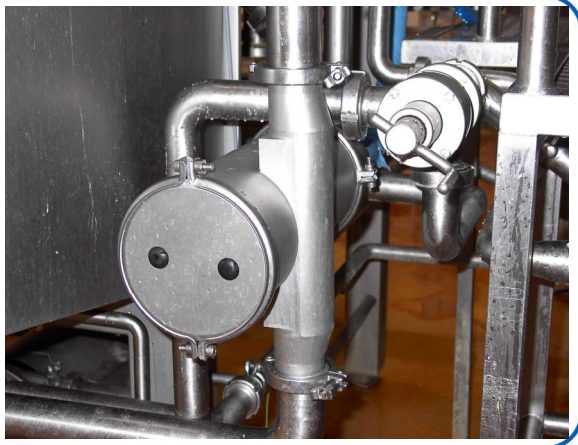


# Product Tefwin



## Tefwin™ Dairy NIR on-line cell

A new and innovative sampling technique for on-line NIR monitoring of dairy products and products of similar substances. It is delivered with a customer's choice process flanging, it fits pipe sizes from 2-6" and offers optical path from 5-15 mm.

Its design, IP67 tightness and remote spectrometer capabilities make it ideal to put in the heart of the process, where temperature and splashing water normally makes spectroscopy less attractive. The cell is installed directly in the process line, making real time control over the process possible.

### Specifications

The Tefwin cell must be attached to a high performance FT•NIR spectrometer capable of scanning from 7500 to 14000  $\text{cm}^{-1}$ . Light is sent from the spectrometer to the cell via a 2 mm fibre bundle. A very high performance silicon detector is mounted in the cell and the signal is returned for processing.

The Tefwin cell features no glass parts in contact with process, only PTFE windows and SS316 body parts. A remote 24 VDC power supply is used for powering of the cell electronics. The cell handles pressure below 12 bars and operates with product temperature from 5-60 °C (120 °C in the cleaning process). The cell is CIP/SIP compliant.

### Applications examples

Product	Components
Butter & spreads	Moisture, fat, salt
Processed cheese	Fat, moisture, salt, mixing
Fresh cheese	Fat, moisture, salt

### ROI

Applying on-line monitoring of the dairy process gives the opportunity to control the quality and the composition of the main ingredients, like fat and moisture. This results in less product variation and spills, which leads directly to higher production yield.