

# Tefwin™ Dairy NIR on-line cell



## The Q-Interline Tefwin™ On-line Dairy cell

A new and innovative sampling technique for on-line NIR monitoring of dairy products and similar substances. It is delivered with a customer choice process flanging, fits pipe sizes from 2-8" and offers optical path from 10-30 mm.

With its design and IP66 tightness and remote spectrometer capabilities, it's 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 reduced fibre bundle. A very high performance Si 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 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 compliant.

## Applications

A Tefwin based system can be used for a wide range of dairy products such as butter, margarine, processed cheese, fresh cheese, yoghurt etc.

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

## ROI

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

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