



CoAguLite™ System for Cutting Time Control

- ❖ Improves moisture control
- ❖ Reduces whey fat losses
- ❖ Reduces fines losses
- ❖ Replicates the cheesemaker's cutting time selection
- ❖ Provides consistent selection of cutting time
- ❖ Alerts of non standard vat reaction
- ❖ Measures coagulation reaction kinetics
- ❖ Easy calibration
- ❖ 3-A Compliant
- ❖ Microprocessor Based
- ❖ Onboard Data Storage with USB Retrieval

The CoAguLite System provides electronic controls for automating the cutting time selection for enzymatic or acid (cottage cheese and yogurt) cheese production. The benefits of this system include reduced whey fat and fines losses and improve moisture control. Determination of the enzymatic reaction rate of the coagulating milk gives this technology the ability to adjust for changes in temperature, pH, added calcium, enzyme concentration or milk reactivity. Precise measurement of small changes in aggregation of casein is enhanced by the use of miniature optical fibers in a unique sensor configuration.

A microprocessor implements a data processing algorithm to obtain parameters for the cutting time prediction model. A simple cutting time prediction model for enzyme coagulated milk is as follows: $T_{cut} = BETA * T_{max}$

BETA is a constant selected by the cheese maker that calibrates the system. A model that corrects for protein variation is available. Cutting time prediction for acid coagulation in cottage cheese is similar. Contact Reflectronics for more details.



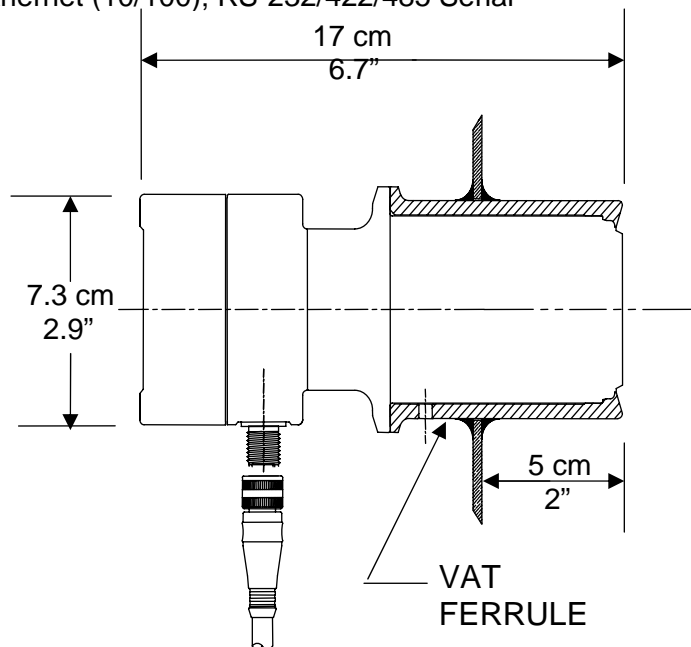
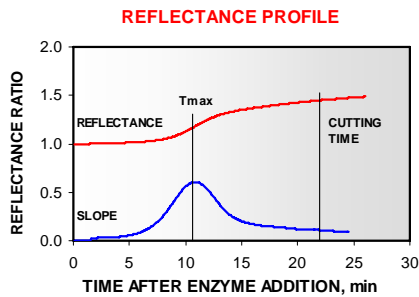
CoAguLite System Technical Specifications

SENSOR;

- ❖ Compliance with Standard: NEMA 4X (water tight, corrosion resistant); CE Mark Verified Class A under EN 61326-1; CE Mark Safety EN 61010-1; 3A Sanitary Standard 46-03; EPDM (ethylene propylene rubber)
- ❖ Sensor and ferrule O-Ring: 316 SS
- ❖ Sensor housing and ferrule: Ertalyte
- ❖ Plastic for sensor cone: Silica
- ❖ Optical fibers: Gold soldered
- ❖ Fiber attachment: Quick disconnect, water tight , 5 m (16 ') standard
- ❖ Cable: Head, 60 °C; Probe, 100 °C
- ❖ Operating temperature limits: 2.5" Tri-Clamp
- ❖ Sensor vat connection: 24 VDC, 200 mA max., low noise.
- ❖ Power supply: Etched onto SS (# plus mfg. date; 123-200510 31)
- ❖ Serial and model number:
- ❖ Microprocessor based

Human Machine Interface (Red Lion, G303 controller, 3" Monochrome Graphical Display)

- ❖ Output signal: 5 VDC digital
- ❖ Network ports: Ethernet (10/100); RS-232/422/485 Serial



The CoAguLite System is currently being implemented by:

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