

NEW! FluorLite-MC™

**Cutting Time Control Technology with “Enzyme Assistant”
gives the correct gel strength at the desired time.**

- ❖ **Cheesemaker selects desired gel texture**
- ❖ **“Enzyme Assistant” promotes consistent schedule production**
- ❖ **Promotes production of consistent quality cheese**
- ❖ **Automatically adjusts for delayed enzyme addition (longer piping to vat)**
- ❖ **Alerts operator to non-standard vats**
- ❖ **PLC program and sensor processor developed as a single unit**
- ❖ **Infrared backscatter responds to milk aggregation**
- ❖ **Fluorescence responds to gel firming**

Milk coagulation has three phases: enzymatic; aggregation; and gel-firming. Protein fluorescence during the gel-firming phase drops drastically because of the change in protein configuration. The FluorLite sensor measures this drop in fluorescence during the gelation phase (patented) and determines a time-parameter that can be used to relate to gel strength, G'. This allows the cheesemaker to select the desired gel strength. FluorLite technology provides a consistent cutting time control because the time-parameters derived from both the infrared and fluorescent signals provide excellent information about the status of the coagulation phase.

Excellent benefits are expected in plants increasing the solids content of their cheese milks because the different protein sources tend to have different protein reactivity.

A FluorLite sensor employs a microprocessor to analyze the signals and transmit data to the PLC. The FluorLite sensor and PLC Management Program were developed as an integrated unit. The FluorLite sensor, cable, and PLC Management Program are a unit.

The “Enzyme Assistant” is included and assists the cheese operator in adjusting the enzyme level for promoting a consistent production schedule.

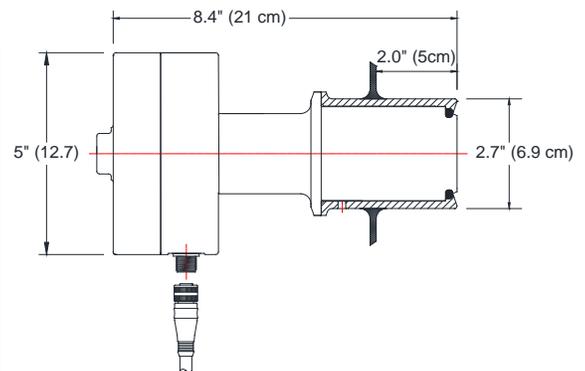
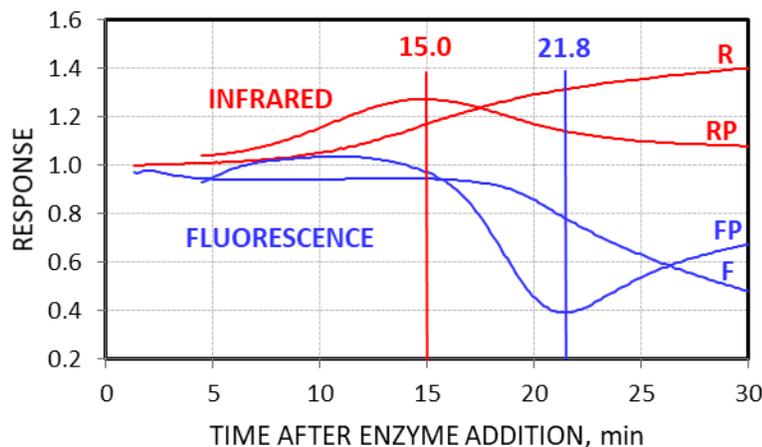


The FluorLite-MC with Vat Ferrule and Tri-Clamp.

FluorLite-MC™ Technical Specifications

- | | |
|--------------------------------|---|
| ❖ Standard Compliance | NEMA 4X (water tight, corrosion resistant);
3A Sanitary Standard 46-03 (pending) |
| ❖ Product Contact O-Rings | Viton |
| ❖ Sensor housing and ferrule | 316 SS |
| ❖ Window | Sapphire |
| ❖ Cable | Quick disconnect, water tight, IP 69k Rated |
| ❖ Operating Temperature Limits | Fluorescent measurement 5 - 60°C; Sensor 100°C |
| ❖ Connections | 2" Tri-Clamp |
| ❖ Power Supply | +24 VDC, 100 mA max., low noise |
| ❖ Serial Number | SN and date etched onto SS (323-20180125) |
| ❖ Output | Two 4-20 mA signals |
| ❖ Signal Input | One 24V digital signal |

FluorLite Profile



The FluorLite-MC uses the same vat ferrule as the CoAguLite.

Comparison of infrared response (red lines) to the fluorescent response (blue lines). The infrared signal yields a time parameter, TMAX, of 15 minutes. The fluorescent signal yields a time parameter, FMAX, of 21.8 minutes. The FMAX is much closer to the coagulation endpoint and provides better prediction of cutting time. Using both the Infrared and fluorescent signals gives an excellent correlation with gel texture, Gprime.