

Soleris System



Description

Soleris System for Rapid Microbial Detection

The Soleris system is a rapid optical system for the detection of microbial contamination based on an innovative application of classic microbiology. The optical assay measures microbial growth by monitoring pH and other biochemical reactions that generate a color change, as microorganisms in the broth grow and metabolize nutrients. The results are monitored by the system providing an alert for samples that are out of specification.

Sensitivity ranges from a single organism per vial to 10⁸ cfu/mL (upper limit).

The Solaris Technology

The Soleris technology monitors changes in the chemical characteristics of microbial liquid growth medium and detects microorganisms with pH and other sensitive reagents. The reagents change their spectral patterns as the metabolic process takes place. These changes are detected photometrically by an optical instrument and monitored at predetermined time intervals.

The key to the technology is the monitoring of these changes in a semifluid zone of the patented organism-specific vial (see right). This zone is separated from the liquid medium, thereby eliminating the masking of the optical pathway by the product, or microbial turbidity. Changes in color, expressed as optical units, are sensed by the optical sensor and recorded in the computer. Sample volumes of up to 5 mL can be used. Various dyes, which are indicators of metabolic activity (e.g., pH, redox, CO₂ production and enzymatic activity), can be utilized in the system.

Because of its design, the system can be utilized in conjunction with swabs, sponges and filters to assess the levels of various groups of organisms as a critical control point on equipment, floors, and the environment. Soleris' advantage over ATP is that it measures presence of specific groups of bacteria, indicating problems in a rapid manner.

Products Covered

- Allergens Kit