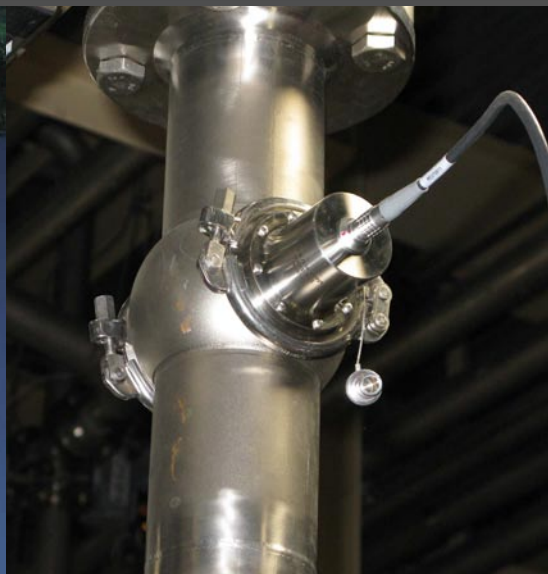


VS-3000 BEVERAGE AND SOFT DRINK MONITOR Infrared Inline Process Control Sensor

Direct real-time ingredient measurements 24x7
CO₂, Brix/Sugars and Organic Acid (for inline Diet)

VitalSensors TECHNOLOGIES

The VS-3000 Beverage and Soft Drink Monitor measures dissolved ingredients real-time 24x7. Ingredients are measured directly, not inferred or calculated. VS-3000 is easy to install, easy to integrate and has a low cost of ownership.



VitalSensors Technologies LLC is the leader in innovative, inline instruments for the food, beverage and pharmaceutical industries. The VS-3000 Beverage and Soft Drink Monitor measures up to three concentrations simultaneously using one economical sensor.

Real-time, inline concentration readings available for dissolved:

- Dissolved Brix/Sugars
- Dissolved Organic Acid (for inline Diet)
- Dissolved CO₂

Precision Infrared Measurements of Process Contents — VS-3000 Sensors provide real-time concentration and temperature readings for fluids in a process stream or in a tank. VS-3000 Sensors can be implemented in flow or no flow conditions and are not affected by pressure spikes, density, color, viscosity or extreme working conditions.

Maintenance and Cost Savings — VS-3000 series sensors are state of the art, solid state devices which contain no moving parts and require no maintenance. MTBF \geq 50,000 hrs.

Improved Plant and Asset Utilization — The proven reliability, accuracy and repeatability of the VS-3000 Sensors provide plant personnel with real-time process control data for monitoring and blending 24x7.

Networked Devices Providing Real-Time Data — VS-3000 sensors can be implemented as standalone units or as part of a process control network under PLC control.

VitalSensors TECHNOLOGIES

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Product Specifications

System includes inline sensor, cable, Sensor Management Station with local display and Windows™-based software

| Part #s Parameter Measured | VS-3000BSM (Brix, CO ₂), VS-3000BSMA (Brix, CO ₂ , Organic Acid/Diet) or VS-3000BSBA (Brix, Organic Acid/Diet) Brix | CO ₂ | Organic Acid (for inline Diet) |
|-------------------------------|---|--|--|
| Measuring Range | 0 – 20° Brix standard 0 -100° Brix customizable 0 – 2000 mBrix | 0 to 6 v/v 0 to 12,000 ppm 0 to 12,000 mg/L 0 to 12 g/L | 0 – 5 w/w standard 0-100 w/w % customizable |
| Accuracy | ± .01° Brix ± .1° mBrix | ± .02 v/v ± 39.2 ppm ± 39.2 mg/L or .0392 g/L | ± .005 w/w % |
| Resolution | .01° Brix | .01 v/v 1 ppm 1 mg/l or .001 g/L | .01 w/w % |
| Repeatability(8 hour test) | .008° Brix | .008 v/v 16 ppm 16 mg/l or .016 g/L | .008 w/w % |

Measuring Method Mid Infrared spectrometer with Attenuated Total Reflectance (ATR) sampling

Measuring Interval 100 ms

Data Output Interval 100 ms to 30s (user defined)

Operating Process Temperature (in 40°C / 104°F spans) -2°C / 28.4°F to 85°C / 185°F – Standard Models
120°C / 248°F – Extended Temperature Model (with cooling jacket)

Temperature Display Range -5°C to +85°C (+23°F to 185°F)

Maximum CIP Temperature 85°C / 185°F (standard model) 120°C / 248°F (extended temperature model)

Maximum Line Pressure 10 bar (150 psi)

Process Connection 68mm Tuchenhagen Varinline® connection fitting (DN65)

Dimensions (Sensor) 82.6mm (3.25 in) W x 82.6mm (3.25 in) H x 82.6mm (3.25 in) D

Enclosure IP68 (NEMA4)

Shock Resistance 100G 1/2 sine wave or 6 foot drop on concrete

Operator Interface – VS-300 Sensor Management Station or VS-200 Sensor Management Station (DIN Rail Mounted)

Display Concentration(s), Temperature and Time on four-line VFD display

Cable (Distance to Sensor) 4.6m (15 ft.)

I/O Digital I/O board for Remote IN/Relay OUT up to 64 brands - - (VS-300 only)

Fieldbus Interfaces 4-20mA, Ethernet, EtherNet/IP and DIO (standard) Profibus DP (optional)

Power 120/240 VAC, 50-60 Hz (auto sensing) or 24VDC

Dimensions (WxHxD VS-300 SMS) 222.3mm (8.75in) W x 290.8mm (11.5 in) H x 139.7mm (5.5 in) D

Enclosure IP67 (NEMA4) ATEX optional

Ambient Temperature -5°C to +40°C (+23°F to 104°F)

Shipping Weight (Total System) 9.07 kg (20 lbs)

Approvals CE, FCC, VCCI Class A, AS/NZS Class A