

One Sensor Measures Up To Three Concentrations

The VS-3000 Beverage and Soft Drink Monitor measures dissolved concentrations real-time 24x7. With an extremely low cost of ownership. Concentration is measured directly, not inferred or calculated. Easy to install, easy to integrate.

Product Specifications

VS-3000 Beverage and Soft Drink Monitor **Inline Infrared Process Control Sensors**

Measure Concentration Directly and Economically 24x7 – Combining CO₂, Brix/Diet and Organic Acid Real-time Measurements



VitalSensors Technologies is the leader in innovative real-time instruments for the food, beverage and biofuel industries. The VS-3000 Beverage and Soft Drink Monitor is able to measure up to three concentrations simultaneously all with one economical sensor that fits in the palm of a persons hand.

- Dissolved Brix/Diet Measurement
- Dissolved CO₂ Measurement
- Dissolved Organic Acid Measurement

Direct Inline High Precision Infrared Measurements of Process Contents - VS-3000 Sensors directly measure reliably in real-time the true concentration and temperature of fluids in a process line, or tank. The VS-3000 Sensors can be implemented in flow or no flow conditions and are not affected by pressure spikes or extreme working conditions.

Leadership Economics and Maintenance Savings - VS-3000 Series Sensors are state of the art maintenance free – solid state devices with no moving parts and no consumables.

Improve Plant and Asset Utilization - The proven reliability and accuracy of the VS-3000 Sensors provide plant personnel with accurate process and control data for monitoring and blending 24x7

Network Device Real-Time Data- VS-3000 Series Sensors can be implemented standalone or as part of a process control network under PLC control.



Product Specifications

System includes inline sensor, connection cable, local display and Windows™ based software for monitoring and setup

Sensor Application-Dissolved	P/N: VS-3000BSM (Brix/Diet, CO2) or P/N: VS-3000BSMA (Brix/Diet, CO2, Organic Acid)		
	Brix/Diet	CO2	Organic Acid (Optional)
Measuring Method	Mid Infrared spectrometer with Attenuated Total Reflectance (ATR) sampling		
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 Interval	100 ms		
Data Output Interval	500 ms to 30s (user defined)		
Operating Process Temperature	-2°C to +85°C (+28.4°F to 185°F) in 40°C (104°F) process temperature spans Extended temperature models available to 120°C (248°F)		
Temperature Display Range	-5°C to +85°C (+23°F to 185°F)		
Maximum CIP Temperature	+85°C (+185°F) Extended temperature option available		
Maximum Line Pressure	10 bar (150 psi)		
Process Connection	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	IP65 (NEMA4)		
Shock Resistance	100G ½ sine wave or 6 foot drop on concrete		

Operator Interface – VS-300 Sensor Management Station

Display	Concentration, Temperature and Time on three-line VFD display
Cable (Distance to Sensor)	4.6m (15 ft.)
Analog I/O	4-20mA (optional)
Fieldbus Interfaces	Ethernet, EtherNet/IP (optional), Profibus PA (optional)
Power	120/240 VAC, 50-60 Hz (auto sensing)
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	IP65 (NEMA4)
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

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