The VS-3000 Beer and Wine Monitor measures dissolved ingredients real-time 24x7. Concentrations 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 Beer and Wine Monitor measures three concentrations and temperature simultaneously using one sensor.

Real-time, inline concentration readings available for dissolved:

- Alcohol / Ethanol
- Real Extract
- CO2
- Specific Gravity (calculated)
- Original Extract (calculated)
- Real Degree of Fermentation (calculated)

**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 ≥ 100,000 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.
# Product Specifications

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

<table>
<thead>
<tr>
<th>Part #s</th>
<th>VS-3000BM (Alcohol / Real Extract / CO2) and VS-3000BMAE (Alcohol / Extract)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parameter Measured</td>
<td>Ethanol/Alcohol</td>
</tr>
<tr>
<td>Measuring Range</td>
<td>0 – 20 w/w % standard</td>
</tr>
<tr>
<td></td>
<td>0 – 100 w/w % customizable</td>
</tr>
<tr>
<td></td>
<td>0 – 20 v/v %</td>
</tr>
<tr>
<td>Accuracy</td>
<td>± .016 w/w %</td>
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<tr>
<td></td>
<td>± .02 v/v %</td>
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<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Resolution</td>
<td>.01 w/w %</td>
</tr>
<tr>
<td></td>
<td>.01 v/v %</td>
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<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Repeatability (8 hour test)</td>
<td>.01 w/w %</td>
</tr>
<tr>
<td></td>
<td>.01 v/v %</td>
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</tbody>
</table>

Measuring Method

Mid Infrared spectrometer with Attenuated Total Reflectance (ATR) sampling

Data Output Interval

100 ms

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)

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)

7.62m (25 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) Profinet DP (optional)

Power

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

Dimensions (WxHxD VS-300 SMS)

222.3mm (8.75 in) W x 290.8mm (11.5 in) H x 139.7mm (5.5 in) D

Enclosure

IP67 (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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p/n vs-3000BM/ps0112