

FREQUENTLY ASKED QUESTIONS

VolumeCheck

1. What is the technology used by the VolumeCheck?
 - The VolumeCheck has a non-contact sensor which utilizes an ultra-sonic emission to detect the distance from the sensor to the surface of the sample in a tube or well plate.
 - To provide volume data, the distance measured is compared to a end-user created look-up table (calibration curve) specific to the plates or tube racks being measured.
 - The VolumeCheck software incorporates the look up table into the GUI interface so the operator can see, via the software GUI, the volume data and the measurement data as the sensor reads each tube/well plate position.
2. What is the accuracy of the VolumeCheck?
 - Accuracy of the VolumeCheck is dependent upon the type of labware. Due to the geometry of different well plates and tube racks, accuracy is labware dependent. Basically, when enough sample to form a meniscus is present, the VolumeCheck delivers accuracy at +/- 10 μ L.
 - Accuracy can further be influenced by the following conditions:
 - i. Differences in labware such as conical, v-shaped, or flat-bottom well plates and tubes
 - ii. Droplets on the wall of a tube or well
 - iii. Air bubbles in sample
 - iv. Plate-to-plate dimensional variations
3. What is the minimum volume the VolumeCheck can detect?
 - Minimum detectable volume is dependent on the type of consumable and sample being measured. For example, the VolumeCheck will be able to detect lower volumes in a PCR plate vs. a flat bottom plate because it takes less sample volume in a PCR plate to form the meniscus.
4. How much is the VolumeCheck?
 - There are three models available:
 - i. VolumeCheck 50: Reads a plate in three minutes: \$19,995.00
 - ii. VolumeCheck 100: Reads a plate in one minute: \$24,995.00
 - iii. VolumeCheck 100LV: LV stands for large vial and is the customizable system for vials larger than 52mm: \$29,995.00

5. When are rack or plate adapters needed?
 - The VolumeCheck is designed so the sensor is within $\sim\frac{1}{2}$ inch of the top of a well plate or tube rack. If a customer uses both deep well and shallow well plates, they will need a VolumeCheck rack adapter for the shallow well plate to be read at the same level as the deep well plate.
 - Please refer to BioMicroLab's price chart for plate adapter sizes and pricing.
6. Can the VolumeCheck be integrated with my lab's robotic arm or LIMS system?
 - Yes, the customer would purchase BioMicroLab's VolumeCheck ActiveX controls which provide full programming flexibility for LIMS and robotics integration.
7. Can I customize the output file?
 - Yes, by using the output file tools available with the VolumeCheck software, the customer can customize the output file contents and destination folder. Output files are .csv format.
8. What is the warranty for VolumeCheck?
 - All BioMicroLab products come with a one-year factory warranty.
9. What labware is compatible with the VolumeCheck?
 - The VolumeCheck has been designed to inspect 24, 48, and 96 well plates and tube racks. Customers may need to purchase well plate rack adapters for well plates less than 41mm in overall height.
 - BioMicroLab is working on development of a VolumeCheck for 384-well formatted plates. VolumeCheck for 384 well plates will be a different model of product than the 96 well VolumeCheck.
10. How fast is the VolumeCheck?
 - The VolumeCheck 50 scans one rack in approximately three minutes.
 - The VolumeCheck 100 and 100LV scan one rack in approximately one plate per minute.
 - Speeds vary based on customer sensor settings.