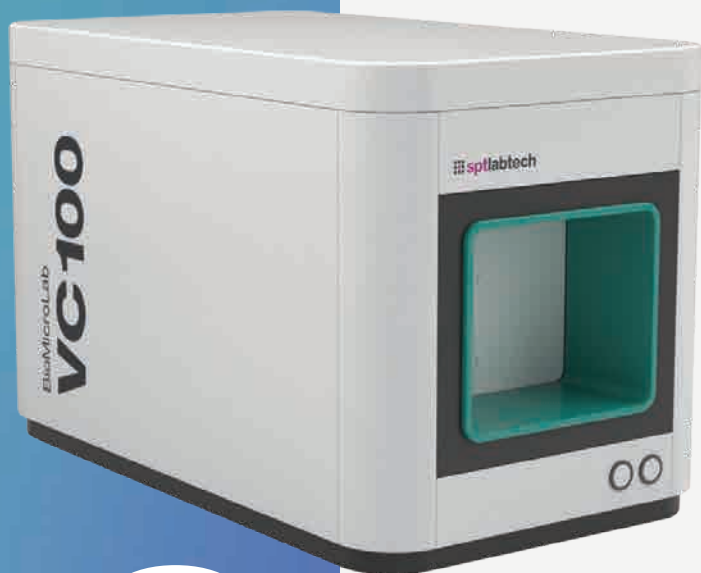


BioMicroLab

VC100



# automated non-contact liquid level detection

The VC100 uses ultrasonic technology to measure the height of the sample meniscus without coming into contact with the sample. The volume of each well of a 96 well plate is returned in 1 minute. This easy to use system provides a robust alternative to manual or visual well plate inspection.

## applications

- Low or high sample volume detection in uncapped consumables
- Sample library inventory management
- Assay plate quality control
- QC/QA for assay development and DNA processing
- Detect sample volume for incoming plate samples
- Volume verification for plates before and after liquid handling operations

## features

- Scans a 96 well plate in one minute
- Collects and outputs sample volume data for each well position
- Works with common lab solutions such as water, alcohol, DMSO and more
- Outputs data in easy-to-use LIMS formats

## software

- Graphically displays the well plate volumes in columns and rows
- User interface designed for quality control applications
- Project-based software for multiple types of applications and labware
- Select or deselect rows and/or columns to scan for efficient throughput
- Includes plate data calibration table utility
- Easy-to-use Windows based software
- ActiveX toolkit available for integration projects
- Prints plate data reports

## labware compatibility

- Compatible with a wide variety of consumables such as 24, 48, 96 well ANSI/SLAS standard racks, PCR plates, deep well blocks and assay plates
- Vials or tubes up to 92 mm in height
- No consumables – works with your sample racks and plates

# how it works

VolumeCheck measures sensor-to-sample distance of known sample volumes to create a calibration table. The sensor-to-sample distance decreases as larger amounts of sample are added to the well. Using a reference curve specific to each well plate or tube rack, the VolumeCheck instrument returns the volume of sample or compound in each well position.

## VC100™ calibration table

A sensor distance-to-volume calibration plot is generated by scanning known sample volumes in specific well plates or tube racks. The VolumeCheck software provides a utility to efficiently generate the data to establish the distance-to-volume reference tables. The volumes of unknown samples are scanned and extrapolated from a reference table.

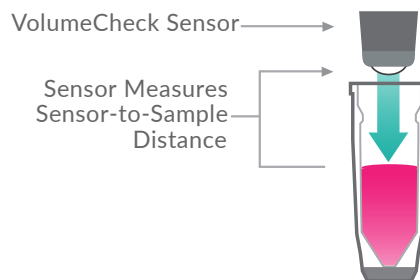
## system resolution and accuracy

The VolumeCheck system is a general purpose volume detection system for a wide variety of labware. The VolumeCheck liquid level sensor is capable of sensing changes in sample volume in the sub 10 µL range. Resolution is dependent on labware and lab processes when using the system.

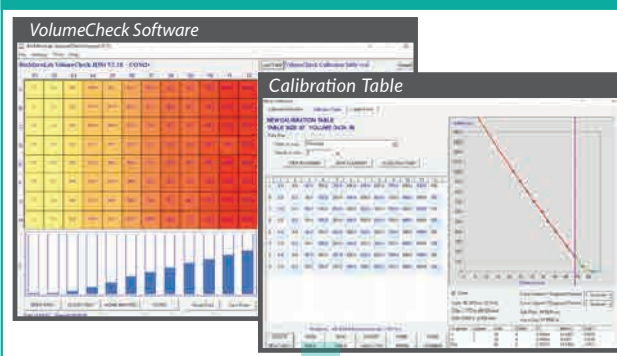
## VC100™ system resolution can be maximized by:

- Centrifuging sample plates to provide a consistent sample level
- Ensuring the reference table is optimized to the consumables and type of sample
- Reducing dimensional variation in labware

### Ultrasonic Sensor Detects Meniscus



### VolumeCheck Processes Plates Based On Calibration Table



### Output Data File Created (.csv)

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	Date & Time of Scan: 10 June 2014 08:57:43														
2	File Name: C:\Users\Local\Desktop\VC Output\Scan Volume 2014-06-10.csv														
3	Raw Identifier: 2005														
4	RACKED TUBE	SAMPLES STATUS	VOLUME1	VOLUME2	VOLUME3	VOLUME4	VOLUME5	VOLUME6	VOLUME7	VOLUME8	VOLUME9	VOLUME10	VOLUME11	VOLUME12	TIME
5	2005 A01	1	1.8679	1.8676	1.8676	1.8676	0	17.433	17.432	17.432	17.432	0	17.432	17.432	0:04:38
6	2005 B01	1	0	0	0	0	0	17.441	17.440	17.440	17.440	0	17.440	17.440	0:04:39
7	2005 C01	1	0.5323	0.5320	0.5320	0.5320	0	17.489	17.489	17.489	17.489	0	17.489	17.489	0:04:40
8	2005 D01	1	0	0	0	0	0	17.461	17.461	17.461	17.461	0	17.461	17.461	0:04:41
9	2005 E01	1	0	0	0	0	0	17.421	17.421	17.421	17.421	0	17.421	17.421	0:04:42
10	2005 F01	1	0	0	0	0	0	17.489	17.489	17.489	17.489	0	17.489	17.489	0:04:43
11	2005 G01	1	0	0	0	0	0	17.414	17.413	17.413	17.413	0	17.413	17.413	0:04:44
12	2005 H01	1	0	0	0	0	0	17.455	17.455	17.455	17.455	0	17.455	17.455	0:04:45
13	2005 I01	1	1	1	1	1	1	16.475	16.475	16.475	16.475	0	16.475	16.475	0:04:46
14	2005 J01	1	1	1	1	1	1	16.475	16.475	16.475	16.475	0	16.475	16.475	0:04:47
15	2005 K01	1	1	1	1	1	1	16.475	16.475	16.475	16.475	0	16.475	16.475	0:04:48
16	2005 L01	1	1	1	1	1	1	16.475	16.475	16.475	16.475	0	16.475	16.475	0:04:49
17	2005 M01	1	1	1	1	1	1	16.475	16.475	16.475	16.475	0	16.475	16.475	0:04:50
18	2005 N01	1	1	1	1	1	1	16.475	16.475	16.475	16.475	0	16.475	16.475	0:04:51
19	2005 O01	1	1	1	1	1	1	16.475	16.475	16.475	16.475	0	16.475	16.475	0:04:52
20	2005 P01	1	1	1	1	1	1	16.475	16.475	16.475	16.475	0	16.475	16.475	0:04:53
21	2005 Q01	1	1	1	1	1	1	16.475	16.475	16.475	16.475	0	16.475	16.475	0:04:54
22	2005 R01	1	1	1	1	1	1	16.475	16.475	16.475	16.475	0	16.475	16.475	0:04:55
23	2005 S01	1	1	1	1	1	1	16.475	16.475	16.475	16.475	0	16.475	16.475	0:04:56
24	2005 T01	1	1	1	1	1	1	16.475	16.475	16.475	16.475	0	16.475	16.475	0:04:57
25	2005 U01	1	1	1	1	1	1	16.475	16.475	16.475	16.475	0	16.475	16.475	0:04:58
26	2005 V01	1	1	1	1	1	1	16.475	16.475	16.475	16.475	0	16.475	16.475	0:04:59
27	2005 W01	1	1	1	1	1	1	16.475	16.475	16.475	16.475	0	16.475	16.475	0:05:00
28	2005 X01	1	1	1	1	1	1	16.475	16.475	16.475	16.475	0	16.475	16.475	0:05:01
29	2005 Y01	1	1	1	1	1	1	16.475	16.475	16.475	16.475	0	16.475	16.475	0:05:02
30	2005 Z01	1	1	1	1	1	1	16.475	16.475	16.475	16.475	0	16.475	16.475	0:05:03

specifications	models	throughput speed	labware supported	48 and 24 well	96 well	384 well
	BioMicroLab VC100	one minute per plate	up to 92mm High	yes	yes	no
	BioMicroLab VC384	30 sec-3 min per plate	up to 92mm High	yes	yes	yes
	<ul style="list-style-type: none"> <li>• Dimensions: 28cm x 68cm x 28cm (11"W x 24.5"D x 11.5"H)</li> <li>• Weight: 15 kg (33.25 lbs.)</li> <li>• Electrical: 110-220 VAC 50/60Hz</li> <li>• System Requirements: Windows 10, 8, 7 • 512MB RAM • One USB port</li> <li>• IQ/OQ: Installation Qualification / Operational Qualification Available</li> </ul>					