



# Labcell Water Activity Instruments



**METER**  
FOOD

# Pawkit

Originally designed for government inspectors, the 4-inch Pawkit is a reliable water activity instrument for use on-the-go.

To make a measurement, flip back the sensor cover and fit the Pawkit over a standard AquaLab sample cup. A push of a button brings an accurate reading within five minutes.

Pawkit owners include government inspectors, jerky manufacturers, small food companies and production-line QA managers, among others.

The Pawkit is accurate to  $\pm 0.02$  aw



Screenshot:  
Final reading with the 0.760 Standard.

Specifications	
Water Activity Range:	0.050 to 0.930
Resolution:	+/- 0.01
Accuracy:	+/- 0.02
Sample Time:	Approx 5 Minutes
Sample Size:	Up to 14 ml
Sample Type:	Powder, Solid or Liquid
Temperature Control:	N/A - Ambient
Battery Life:	3 Years Typical
Sensor Type:	Dielectric Humidity Sensor
Warranty:	1 Year Parts and Labour

Scan the QR Code to visit our website and learn more about the Pawkit.



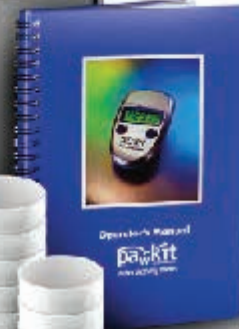
# What's Included?

**Carrying Case**  
Contains Pawkit instrument,  
manual, sample cups and  
standards.

**Cleaning Kit\***  
One years supply



**Operator's Manual**  
Instrument instructions and care.



**Sample Cups\***  
Case includes 10 cups  
Also supplied with trial pack of 100  
cups & lids.



**Verification Standards\***  
If you don't have two boxes go to  
[www.labcell.com](http://www.labcell.com) / [mail@labcell.com](mailto:mail@labcell.com) to purchase.



**Pawkit**  
Handheld water activity meter.



\* Periodically purchase from [www.labcell.com](http://www.labcell.com) / [mail@labcell.com](mailto:mail@labcell.com)

# Aqualab 3

The AQUALAB 3 is a smart, connected water activity meter that pairs the speed and accuracy of AQUALAB chilled mirror dew point technology with SKALA's data power. This makes it possible not only to get your final testing numbers quickly, but now you can also manage compliance details for auditors, optimize your moisture margin and monitor your process in real time to make consistently great product for your customers.

Specifications	
Water Activity Range:	0.030 to 1.000
Resolution:	+/- 0.001
Accuracy:	+/- 0.005
Sample Time:	Approx 5 Minutes
Sample Size:	Up to 15 ml
Sample Type:	Powder, Solid or Liquid
Temperature Control:	15-35°C
Input Mains:	110/240 V AC
Sensor Type:	Chilled Mirror Dewpoint
Warranty:	1 Year Parts and Labour

The AQUALAB 3 water activity meter is designed with layers of reliability. It monitors itself and notifies METER support when something doesn't look right.

And the AQUALAB 3's measurement electronics are contained in a swappable factory-calibrated aluminum block. No loaners and no downtime, because the instrument never leaves your bench.



Scan the QR Code to visit our website and learn more about the Aqualab 3.

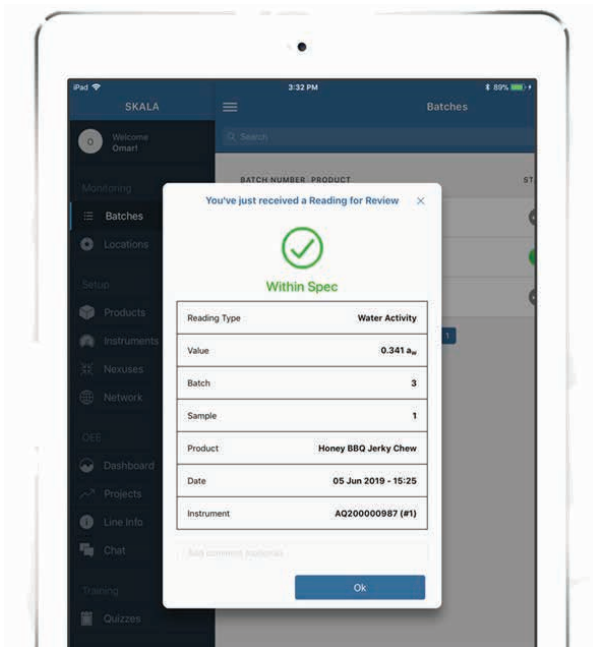


The AQUALAB 3 is the first benchtop water activity meter with no screen. It opens up a world of possibilities by connecting the AQUALAB 3 to the devices where people get work done—iPads, computers, even mobile phones.



Here's what the SKALA-connected AQUALAB 3 delivers for your lab:

- Automated data collection. No writing, no typing, no data entry. Each piece of data is automatically tagged with technician name, date, time, instrument serial number and more.
- Audit-ready readings. Fully documented, audit-ready testing records (Conforms to CFR 21 Part 11; SQF and BRC compliant).
- Instant visual pass/fail feedback. Reading is tagged to a specific product and checked against specifications visual alerts for pass, outside control limits and fail.



# Aqualab Series 4TE

Decagon's AquaLab Series 4TE water activity meter is ideal for fast and precise measurements of water activity (aW).

Measurements are fast (typically less than 5 minutes) and accurate to +/- 0.003 aW.

The Series 4TE allows users to pre-define the sampling temperature. Temperatures of between 15 and 50 deg C can be set to allow samples to be warmed or cooled to within 0.2 deg C.

The Series 4TE also features internal data storage allowing measurements to be taken, safely recorded and then downloaded to a PC.



Screenshot:  
Final reading with the 0.760 Standard.



## Specifications

Water Activity Range:	0.030 to 1.000
Resolution:	+/- 0.0001
Accuracy:	+/- 0.003
Sample Time:	Approx 5 Minutes
Sample Size:	Up to 14 ml
Sample Type:	Powder, Solid or Liquid
Temperature Control:	15°C to 50°C
Input Mains:	110/240 V AC
Sensor Type:	Chilled Mirror Dewpoint
Warranty:	1 Year Parts and Labour

Scan the QR Code to visit our website  
and learn more about the Series 4TE.



**Operator's Manual**  
Allows user to view settings.

**USB Cable**  
To connect your instrument to your computer.

**Verification Standards \***  
If you don't have two boxes go to [www.labcell.com](http://www.labcell.com) to purchase.

# What's Included?

**Standards  
Trial Package**

**Lids x 100  
Trial Package**

**Cups x 100  
Trial Package**



**Power Cable**

**AquaLink 4**  
Software to save, export and graph your data.  
Registration key inside cover.

**Sample Cups \***  
500 per case.

\* Periodically purchase at [www.labcell.com](http://www.labcell.com)

# Aqualab TDL

Measure the water activity of any sample with the first water activity sensor completely unaffected by volatiles. Anyone, from a technician in the lab to an operator at the line, can measure water activity in 5 minutes or less to 0.005 aw accuracy.

The TDL's sensor measures the relative humidity of the air in the sample chamber by emitting a finely-tuned infrared laser beam across the headspace above the sample. The beam of the laser, which is less than one nanometer wide, is specific for the commonly occurring isotope of water. Other vapour molecules, even those from different isotopes of water do not affect the reading.



Screenshot:  
Final reading with the 0.760 Standard.

Specifications	
Water Activity Range:	0.030 to 1.0000
Resolution:	+/- 0.0001
Accuracy:	+/- 0.005
Sample Time:	Approx 5 Minutes
Sample Size:	Up to 14 ml
Sample Type:	Powder, Solid or Liquid
Temperature Control:	15°C to 50 °C
Input	Mains 110/240 V AC
Sensor Type:	Tunable Diode Laser
Warranty:	1 Year Parts and Labour

Scan the QR Code to visit our website and learn more about the TDL.





**Operator's Manual**  
Allows user to view settings.

**USB Cable**  
To connect your instrument to your computer.

**Verification Standards \***  
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# Vapour Sorption Analyser

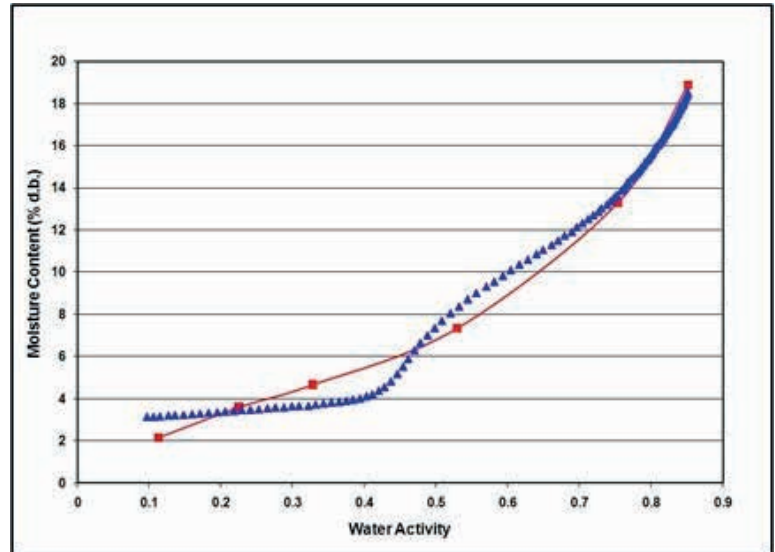
Every food manufacturer has to ask: how long before my product moulds, gets soggy, goes stale, becomes rancid, cakes, clumps, crystallizes-in short becomes unacceptable? What can I do to preserve and extend the shelf life of my product?

## Moisture Sorption Isotherms

One key to answering that question lies in an energy status picture of the product-its moisture sorption isotherm. A moisture sorption isotherm is a graph showing how water activity changes as water is adsorbed into and desorbed from a product held at constant temperature.

Isotherms provide the specific data you need to:

- Make component mixing models
- Set QA/AC specifications
- Define critical control points
- Do packaging calculations
- Predict the effects of temperature abuse



High-resolution isotherms can determine monolayer value and allow formulation for maximum shelf life. They can even pinpoint exact water activity values for caking and clumping, glass transition, deliquescence, protective coating/layer permeability and hygroscopicity.

# DVS & DDI methods in one instrument

Aqualab VSA, an affordable isotherm generator that uses both methods of analysis.

The Dynamic Dewpoint Isotherm (DDI) method gives you full sorption isotherm curve development—hundreds more data points in days instead of weeks.

DVS isotherms allow you to study kinetics, or how long it takes for something to happen. For example, how long it would take for a potato crisp that starts at 0.15aw to lose its crispness in air that's at 80% relative humidity.



Specifications	
Accuracy:	+/- 0.005
Repeatability:	+/- 0.003
Accuracy:	+/- 0.005
Isotherm Methods:	Dynamic Dewpoint (DDI) & Static (DVS)
External Gas:	Not needed if no more than 7 psi
Computer Interface:	USB
Mass Resolution:	+/- 0.1 mg
Water Reservoir:	20 ml
Sample Cup Volume:	10cc
Sample Weight:	500 to 5,000mg
Power:	110 to 240 V AC
Weight:	28 lbs
Sample Temperature:	15°C to 60 °C
Dimensions:	25.4cm x 38.1cm x 30.5cm
Warranty:	1 Year Parts and Labour



Scan the QR Code to visit our website and learn more about the VSA.

# Aqualab Consumables

## Verification/Calibration Standards

Premixed, certified salt solutions for daily AquaLab performance verifications and occasional calibration adjustments.

Select two standards which cover the range of water activities you measure. Use two fresh solutions each day or shift to bracket the water activity range you are testing. Use one standard below the range of your product and one above to ensure that the calibration of your instrument is accurate. Unopened vials have a one year shelf life.

Supplied in boxes of 50 vials with a certificate of analysis for documentation purposes.

The following standards are available:

- 0.250aw ± 0.003 at 25° C (13.41 mol/kg LiCl)
- 0.500aw ± 0.003 at 25° C (8.57 mol/kg LiCl)
- 0.760aw ± 0.003 at 25° C (6.00 mol/kg NaCl)
- 0.920aw ± 0.003 at 25° C (2.33 mol/kg NaCl)
- 0.984aw ± 0.003 at 25° C (0.50 mol/kg KCl)
- 1.000aw ± 0.003 at 25° C USP Purified Water



## Disposable Sample Cups

Using a new cup for each sample ensures the integrity of your water activity data. Sample cups fit in all AquaLab models.

Lids can be purchased with cups. Lids prevent moisture loss or gain if samples aren't immediately tested. Supplied in boxes of 250 with convenient dispenser and easy view stock level window.

# Aqualab Cleaning Kit

Keeping your AquaLab clean is vital to maintaining the accuracy of your instrument.

Dust and sampling debris can contaminate the sampling chamber and must therefore be regularly cleaned out. The purpose of the cleaning procedure is to remove grease, dirt and other soluble substances which can absorb/release water during verification, calibration and/or sample testing. For a smooth and even dew formation, it requires the mirror to be perfectly clean. If there are any contaminants (e.g. fingerprints) on the mirror, the dew will form unevenly and thus affect the accuracy of the reading.



## Complete Cleaning Solution

The Aqualab Cleaning Kit contains all cleaning materials and instructions needed to clean your instrument (our estimate of 1 years supply);

- Cut Kimwipes 1" wide strips x 280 sheets
- Full Kimwipe sheets 4.5" x 8.4 x 280 sheets
- 3 bottles cleaning solution
- 3 bottles distilled water for rinsing
- 4 Activated charcoal
- 4 Cleaning swabs

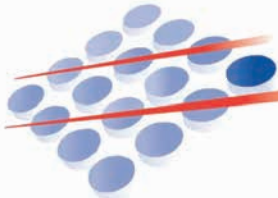
Contact Labcell Limited for more details, a price list or order form;

[www.labcell.com](http://www.labcell.com)  
[mail@labcell.com](mailto:mail@labcell.com)



**METER**  
**FOOD**

## Complete Moisture Analysis



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