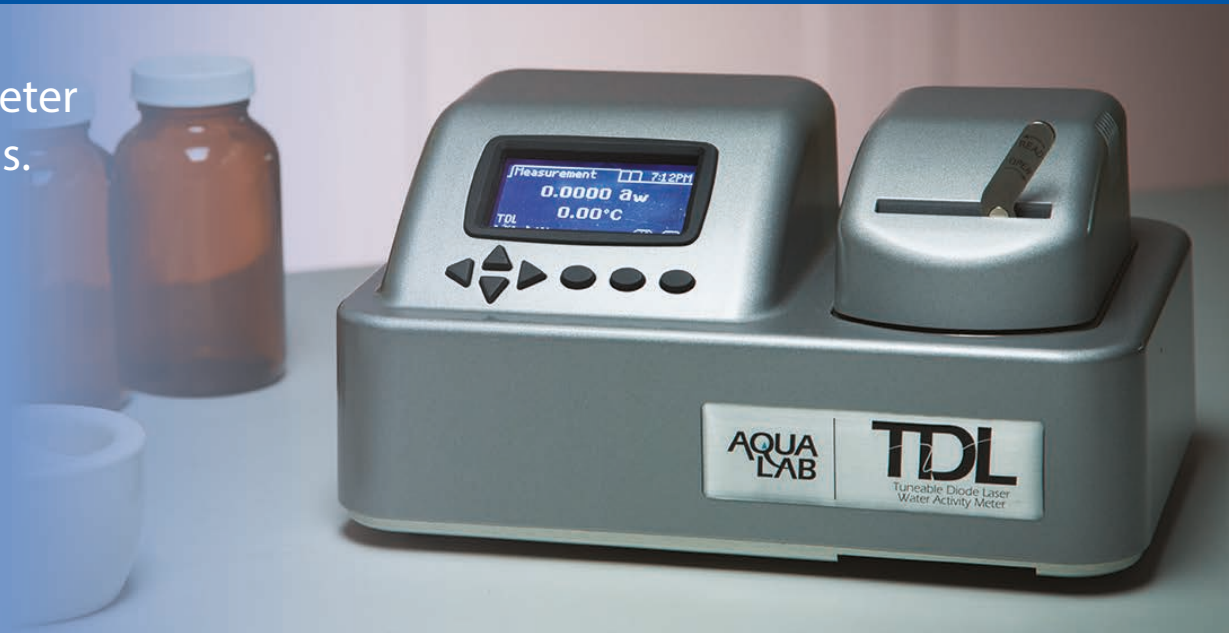
new

AquaLab TDL Water Activity Meter

AQUA LAB BY DECAGON

AquaLab TDL is the only water activity meter in the world that isn't affected by volatiles.

- Breakthrough Tunable Laser Technology
  Precision laser beam measures the presence of water and only water.
- Measure Any Sample
  Unlike capacitance and chilled mirror sensors, the tunable diode laser is unaffected by volatiles.
- Easier Cleaning
  A sensor with no moving parts and a completely sealed sample chamber makes the AquaLab TDL more robust and easier to clean.



AquaLab TDL Benchtop Water Activity Meter

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 a_w specifications.

How it Works

Put a 7.5 ml product sample in a disposable cup, seal the sample chamber lid over the sample and wait for vapour equilibrium. At equilibrium, the relative humidity of the air in the sample chamber is equal to the water activity of the sample.

Tunable Diode Laser Sensor

The TDL's sensor measures the relative humidity of the air in the sample chamber by emitting a finely-tuned near-infrared laser beam across the headspace. Because water vapour has strong absorption bands in the near infrared (NIR), the sensor can measure the presence of water vapour in the headspace very precisely.

Unaffected by Volatiles

The beam of the laser, which is less than one nanometer wide, is specific for the commonly occuring isotope of water. Other vapour molecules even including the vapour of different isotopes of water, do not affect the reading.

Read Any Sample

The sensor is powerful enough to measure the water activity of previously impossible to measure samples, including high concentration ethanol, even gasoline.

Speed and Accuracy

Measure water activity of any sample in 5 minutes or less with ±0.005 a_w accuracy. The AquaLab TDL is the fastest, most precise water activity meter available.

Use (Almost) Anywhere

Water activity is temperature dependent. Internal temperature control lets you set a measuring temperature between 15° and 50° C and use the instrument anywhere, even outside a climate-controlled facility.

Robust, Easy to Clean

The sensor has no moving parts and is housed in a fully-sealed sample chamber. The clamshell lid offers easy access to all parts of the sample chamber for cleaning.

Secure Data

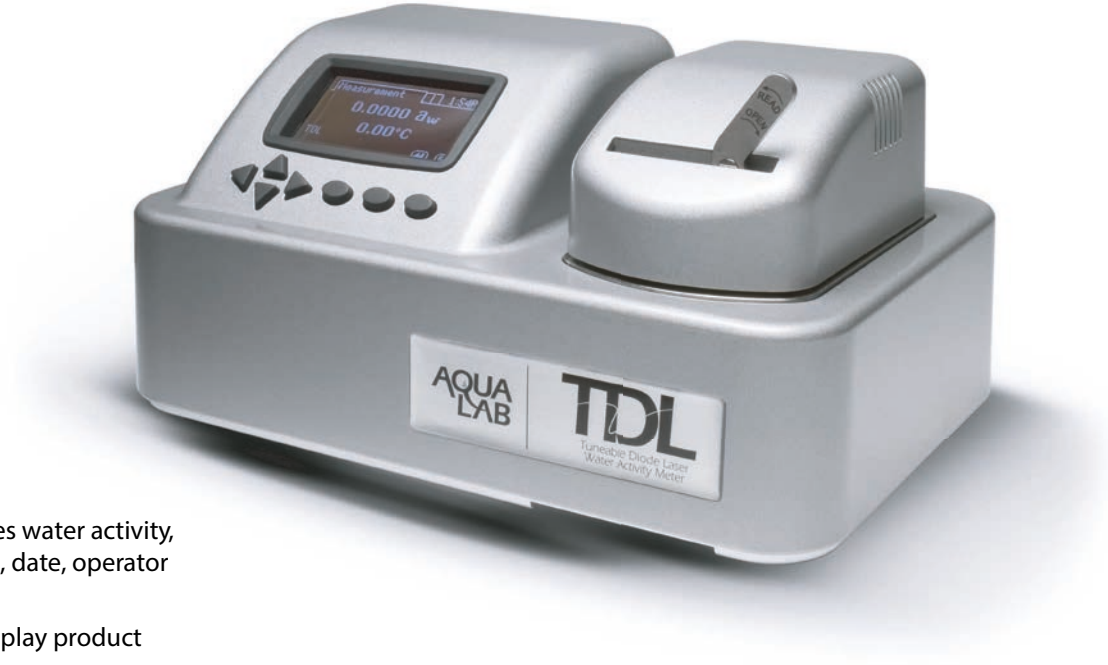
AquaLab TDL stores time, date and user information with every measurement and calibration and can store up to 8,000 secure data points. Set up to 25 unique users and passwords to control access to data.

Use available AquaLink software to maintain compliance records and archives, run statistical analysis and print reports for customers and decision-makers.

Learn More: Visit www.labcell.com/food-pharmaceuticals/water-activity

AquaLab TDL | SPECIFICATIONS

Sensor type	Tunable Diode Laser Infared Temperature
Accuracy	± 0.005 a_w
Repeatability	± 0.001 a_w
Resolution	0.0001 a_w
Range	0.030 to 1.000 a_w
Sample Dish Capacity	7 ml recommended (15 ml full)
Measurement Time	Less than 5 minutes
Display	128x64 graphical interface
Temperature Control	15 to 50˚C (± 1˚C)
Sample Temperature Accuracy	± 0.2˚C
Sample Temperature Resolution	0.01˚C
Test Result Memory	8,000 readings (each reading includes water activity, moisture content, temperature, time, date, operator and sensor used.)
Program Identification	Alphanumeric; Programmable to display product name, lot or product ID number
Operating Environment	5 to 50˚C (39.2 to 122˚F) 0 to 90% Relative Humidity (non-condensing)
Universal Power	110 V to 220 V AC, 50/60 Hz Less than 0.4 amps
Data Interface	RS232A compatible, 8-data bit ASCII code, 9600 baud, no parity, 1 stop bit, cable included



Case Dimentions	26.7 x 18.0 x 12.7 cm (11 x 7.7.1 x 5.1 in)
Case Material	Lustran 433 (ABS) with fire retardant
Weight	3.1 kg
Warranty	One year parts and labour

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