

**Decagon Devices, Inc.**

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# 1 Master Specifications: PTT

## Pawkit

Sensor Type: Capacitance Sensor

Water Activity Range: 0.00 to 1.00  $a_w$

Water Activity Accuracy:  $\pm 0.02$

Water Activity Resolution: 0.01

Sample Temperature Accuracy:  $\pm 0.2$  °C

Sample Temperature Resolution: 0.1 °C

Read Time: 5 min

Sample Dish Capacity: 7.5 ml Recommended (15 ml Full)

Operating Environment: 4 to 50 °C; 0 to 90% Relative Humidity  
(non-condensing)

Case Dimensions: 6.6 x 10.7 x 2.0 cm

Weight: 115 g (4 oz)

Case Material: Stainless Steel and Valox 325 Plastic

Display: 6-digit Custom LCD with Symbols

Data Communications: NA

Power: 2 to 3 Volt 16 mm coin cell batteries (Three Years)

Warranty: 1 year parts and labor

## Pre

Water Activity Range: Dew point block – 0.05 to 1.00; Volatile  
block – 0.05 to 0.95  $a_w$

Water Activity Accuracy: Dew point block –  $\pm 0.01$ ; Volatile block  
–  $\pm 0.015$

Water Activity Resolution: 0.001

Read Time<sup>1</sup>:  $\leq 5$  min.

Sample Temperature Control: 25 °C

Sample Temperature Accuracy<sup>2</sup>:  $\pm 0.2$  °C

Sample Temperature Resolution: 0.1 °C

Sample Dish Capacity: 7.5 ml Recommended (15 ml Full)

Operating Environment: 4 to 50 °C and 0 to 90% Relative Humidity  
(non-condensing)

Case Dimensions: 24.1 x 22.9 x 8.9 cm

Weight: 3.2 Kg

Case Material: Powder Painted Aluminum

Display: 20 x 2 alphanumeric backlit LCD

Data Communications: RS232A compatible, 8-data bit ASCII code,  
9600 baud, no parity, 1 stop bit

Power: 110 VAC to 220 VAC, 50/60 Hz, consumes less than 0.4  
amps

Warranty: 1 year parts and labor

### **Reflex**

Case Dimensions: 7 x 6.5 x 10 inches

Weight: 30 ounces

Case Material: ABS Plastic

Display: Color Touchscreen 800 x 480 pixels

Data Communications: Integrates with Digital LogBook

Power: 120 volt

### **Series 4**

Water Activity Range: 0.030 – 1.000  $a_w$

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<sup>1</sup>On samples with no significant impedance to vapor loss.

<sup>2</sup>AquaLab is calibrated to a NIST traceable temperature standard.

Water Activity Accuracy:  $\pm 0.003$  (4TE Dew Point Mode) and  $\pm 0.015$  (4TEV Capacitance Mode)

Water Activity Resolution: 0.0001

Read Time<sup>3</sup>:  $\leq 5$  min.

Sample Temperature Range: 15 to 50 °C

Sample Temperature Accuracy:  $\pm 0.2$  °C

Sample Temperature Resolution: 0.01 °C

Sample Temperature Adjustment Increments: 0.1 °C

Sample Dish Capacity: 15 mL Full

Operating Environment: 4 to 50 °C; 0 to 90% relative humidity (non-condensing)

Case Dimensions: 26.7 x 17.8 x 12.7 cm

Weight: 3.1 kg

Case Material: Lustran 433 (ABS) with fire retardant

Display: 64 x 128 Graphical

Data Communications: RS 232 A Serial, 9600 to 115200 baud

Power: 110 to 220 VAC, 50/60 Hz

Warranty: One year parts and labor

## 1.1 AquaLab 4 DUO Specifications

Moisture Content Repeatability: 0.02%

Accuracy to Moisture Content Ref.: 0.1% to 0.5%

### **TDL**

Sensor Type: Tunable Diode Laser and Infrared Temperature

Water Activity Accuracy:  $\pm 0.005$  @ 25 °C

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<sup>1</sup>On samples with no significant impedance to vapor loss.

Water Activity Resolution: 0.0001  $a_w$

Water Activity Range: 0.000 to 1.000  $a_w$

Water Activity Repeatability:  $\pm 0.001 a_w$

Read Time<sup>4</sup>:  $\leq 5$  min.

Sample Temperature Control: 25 °C 15 to 50 °C (with calibration)

Sample Temperature Adjustment Increment: 1 °C

Sample Temperature Accuracy:  $\pm 0.2$  °C

Sample Temperature Resolution: 0.01 °C

Sample Dish Capacity: 15 ml Full

Operating Environment: 4 to 50 °C; 0 to 90% Humidity non-condensing

Case Dimensions: 26.7 x 17.8 x 12.7 cm

Weight: 3.1 Kg

Case Material: Lustran 433 (ABS) with fire retardant

Display: 64 x 128 Graphical

Data Communications: USB

Power: 110 to 220 VAC, 50/60 Hz

Warranty: One year parts and labor

**TrueDry**

## Measurement Values

Moisture Range: 0.1% to 99%

Repeatability (4 g Sample): 0.05%

Repeatability (10 g Sample): 0.01%

Sample Size Range: 1 to 25 g

Moisture Content Measuring Method: Loss-on-drying using any standard method

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<sup>1</sup>On samples with no significant impedance to vapor loss.

**Balance**

Balance Readability: 0.0001 g

Balance Max Weight: 50 g

Balance Min Weight: 0 g

Balance Calibration: Menu Driven

**Drying Unit**

Temperature Technology/Heat Source: Resistive coils provide conductive heat (convective heat in lid)

Temperature Range: 50 to 150 °C

Temperature Control:  $\pm 1$  °C

Temperature Adjustment Increments: 1 °C

**Unit Specifications**

Number of Samples: Nine

Operating Environment: 4 to 50 °C; 0 to 90% Relative Humidity (Non-Condensing)

Sample Cup: 5.7 cm (2 1/4") diameter, 4.32 cm (7/10") height

Chamber Humidity: 1% (0.01  $a_w$ )

End of Analysis Mode: Time or Weight Trigger

Units of Results: % moisture (dry basis or wet basis) and % dry solids

Data Storage: 8 GB SD Card

Display: 7" LCD capacitive touchscreen

Output: FAT32 formatted USB storage device

Power Requirements: 110 to 220 VAC, 50/60 Hz, 500 W

External Dimensions: 17" x 20" x 15"

Net Weight: 60 lbs

Warranty: One year parts and labor and a 30-day satisfaction guarantee

### VSA

Water Activity (Relative Humidity) Accuracy:  $\pm 0.005 a_w$  (0.5% RH)  
(for volatiles setting,  $\pm 0.02 a_w$ , 2% RH)

Water Activity (Relative Humidity) Resolution:  $0.0001 a_w$  (0.01% RH);  $\pm 0.001 a_w$  (0.1% RH) for volatiles setting

Water Activity (Relative Humidity) Range: 0.03 to  $0.95 a_w$  (3% to 95% RH)

Water Activity (Relative Humidity) Repeatability:  $\pm 0.003 a_w$  (0.3% RH) (for volatiles setting,  $\pm 0.02 a_w$ , 2% RH)

Operating Environment: 4 to 50 °C; 0 to 90% Relative Humidity  
(Non-Condensing)

Sample Weight Range: 500 to 5000 mg

Sample Temperature Control Range: 15 to 60 °C at STP

Sample Temperature Stability:  $\pm 1^\circ\text{C}$

External Gas: 7 PSI max, if required

Mass Resolution: 0.5 mg

Sample Dish Volume: 7.5 ml recommended; 15 ml full

Water Reservoir: 20 ml

Program Identification: Alphanumeric and programmable to display product name, lot and ID number

Data Storage: 1 test

Data Communications: USB

Display: 64 x 128 Graphical display with backlighting

Case Dimensions (Footprint): 38.1 x 26.7 x 30.5 cm (15 x 10.5 x 12 in)

Case Material: Machined aluminum frame; polyurethane plastic with fire retardant



Weight: 33 pounds

Universal Power: 110 V to 220 VAC. 50/60 Hz

Operating Environment: 4 to 50 °C; 0 to 90% Relative Humidity  
(Non Condensing)

Certifications: CE

Warranty: One year parts and labor