

eFWM

Food Analysis Science & Technology

The water activity (AW) is the free water or available water or "active" water in food and must not be mixed up with the water content which is the water strongly bound to specific sites on the chemicals that comprise the foodstuff.

The AW is an important measurement to maintain the chemical stability of foods, the microbiological stability of personal care products, to improve the shelf-life of a product, to predict which microorganisms will be sources of spoilage.

For example, most of the bacteria so not grow at water activities below 0.91 and molds which are the most tolerant of low water conditions grow in the range of 0.61 - 0.94.

This parameter helps in controlling the non-enzymatic reactions too.

What is AW?





Specifications eFWM



If you work in a laboratory this instrument is particularly adapted for you. You are looking for an accurate, powerful and robust instrument, which is nevertheless light enough to move from one site to another if necessary. This model is dedicated to research.

THE INSTRUMENTS MAIN F<u>eatures</u>

Principle of the measure:

GBX Scientific LTD new Innovative Sensor Technology

Construction

Robust construction
7" Full touch screen display

Modern communication

Ethernet to get access to the instrument from everywhere, and wifi capability to get display on tablet or smartphone With optional PC software easy creation of eFAst-Lab cluster dispersed worldwide for easy inter-laboratories measurements. Moreover, to avoid to touch the screen (protection against COVID-19) each user can come with her/his own smartphone to control the instrument.

Easy to use and navigate

Control by touch-screen and by standard PC software (no installation).

An optional bluetooth mouse is available if touch-screen not wanted

Easy and Fast service

No need to send back the unit. The instrument can be remotely controlled via the internet without the need of a PC to evaluate the problem and perform firmware update The measurement head / sensor can easily be swapped and replaced for quick and effective service thanks to its new mechanical and electronic design

Measurements

Range: 0.030 to 1.000 of AW Accuracy on the whole range 0-1.000 of AW: +/- 0.018 of AW Accuracy on limited range of AW: 0 – 0.800: +/- 0.002 of AW Resolution: 0.001 of AW

Response time: from 5 min to 30 min depending on sample type

Outputs

USB to export data with USB Key.

Ethernet.

Wifi to communicate between smartphone/ tablet and PC wireless. Bluetooth to connect a Bluetooth mouse.

Temperature regulation

Range 1 : Without temperature regulation. It works at ambient temperature. Internal fan to speed up the measurement included Range 2: Temperature +20°C - +25°C (Peltier control).

Internal fan to speed up tie measurement included Range 3: Temperature +/-0°C - +50°C (External cryogenic bath - no internal fan)

Range 4: Temperature -20°C - +60°C (External cryogenic bath - no internal fan)

Accuracy: +/- 0

More options:

Dimension of the sample cup: Diameter: 40 mm Depth: 12 mm

Volume of cup: 14 ml

Dim of standard instrument (no regulation and regulation in 20°C -25°C)

Height: 400 mm Width: 160 mm Depth: 240 mm Weight: 3.6 kg Dim of instrument for temperature control

(-20°C - +60°C) by cryogenic bath Height: 440 mm Width: 160 mm Depth: 260 mm Weight: 8.0 Kg

Good manufacturing practice
(GMP)

Instrument custom code: 90258040 Accessories custom code: 90259000



0.95 Pseudomonas
0.91 Salmonella
0.87 Many Yeasts
0.80 Most Molds
0.75 Mycotoxigenics
0.65 Xerophic Molds
0.60 Osmophilic Yeasts

SMART IDEAS CREATE SMART INSTRUMENTS