*Lab*Swift-aw

Portable precision instrument for measurement of the aw-value (water activity) of foodstuff, pharmaceutical and chemical products and cosmetics

This compact and handy water activity measurement device with optional rechargeable batteries can be easily used for mobile measurement of the important **a_w**-value product quality parameter directly at-line. Its accuracy can be checked at any time using saturated salt standards. The ***Lab*Swift-aw** is delivered including the accessories in a handy carrying case..

Measurement range aw	:	**0.03 ... 1.00a_w**, *(non condensing)*
Measurement range temp.	:	**5 ... 45°C**
Sensor	:	with resistive-electrolytic measurement cell CM-2
Accuracy	:	**+/- 0.01 a_w**, +/- 0.3°K
Communication	:	**SD card -> PC**

*Lab*Swift-aw

Mobile, fast, accurate, reliable

The *Lab*Swift-aw instrument combines modern technology with measurement speed and high accuracy. Thanks to the Novasina electrolyte sensor the device is able to determine the aw-value very accurately in products of all kinds. Furthermore it is robust, stable and maintenance-free.

The integrated large LC-Display eases the value reading. The ergonomic design and the optional Lithium-Ions long life battery allows a mobile measurement. For stationary use an external power supply is available. The air-tight measurement chamber (not temperature controlled) disposes of a spring-loaded measurement head. The temperature can be read at any time on the display. The new developed stability value settings enable an easy handling for optimal aw measurements. The stability status is appears on the instrument's display. A data logging function by SD card permits a storage of all measurement data, including the protocols, which can be easily transferred to a PC or printer. A special software is available for a detailed analysis of these data.

The instrument is delivered with a robust plastic carrying case including accessories such as humidity standards, filters, ePW sample dishes etc..

<u>Examples of typical samples which can be measured:</u>

- Bakery products of all kinds
- Dried food, fruit concentrates
- Pharmaceutical products
- Chemical products
- Cosmetics
- Drugs, natural remedies

***Measurement device Lab*Swift-aw:**

Dimensions : 85x140x225 mm (HxWxL)
Weight : 1.2 kg
Power supply : External supply and/or Lithium-Ions battery (optional) 1700 mAh

Operation ranges:
Temperature : 5 ... 45 °C
a_w : 0.03 ... 0.95 a_w

Humidity sensor:

Electrolyte measurement cell
Type : CM-2 incl. stored calibration values *(11, 33, 58, 75, 90%RH)*
Measurement range: 0.03... 1.00a_w
Reproducibility : +/- 0.003 a_w
Accuracy : +/- 0.01 a_w
(0.10...0.95 aw at 25°C, all 5 points calibrated)

Temperature measurement:

Precision infrared surface sensor as well as NTC temperature sensor
Measurement range: 5 ...45°C
Reproducibility : +/- 0.1° K
Accuracy : +/- 0.15° K

Humidity standards
Salt tablets SAL-T:
Saturated pure salt solutions based on national standards are recommended:

see catalogue accessories

*Lab*Swift-*aw sets*

***Lab*Swift-aw set** (without battery)

LabSwift-aw set (without battery)
260 0177 incl. power supply

***Lab*Swift-aw set**

The new LabSwift-aw is a precise and handy instrument for the aw-value measurement of foodstuff, pharmaceuticals and cosmetics. It is delivered with a plastic carrying case including accessories. A SD-card interface enables the transfer of all measurement data to a PC or printer.

The device can be checked and adjusted at any time with the included SAL-T humidity standards.

LabSwift-aw set consisting of :

- Measurement device LabSwift-aw
- External universal power supply
- SD card
- 3 SAL-T: 11, 58, 84% RH
- 40 sample dishes ePW
- Spare pre-filters white (5 pcs)
- Tension ring
- Operating instructions
- Factory calibration certificate of the 6-point calibration 11-33-58-75-84-90%

Weight : 3.000 kgs

***Lab*Swift-aw Set** (with battery)

LabSwift-aw set (with battery)
2600179 incl. power supply

***Lab*Swift-aw set & BAT**

The new LabSwift-aw is a precise and handy instrument for the aw-value measurement of foodstuff, pharmaceuticals and cosmetics. The built in Lithium-Ions rechargeable battery allows mobile measurements. The set is delivered with a plastic carrying case including accessories.
A SD-card interface enables the transfer of all measurement data to a PC or printer.

The device can be checked and adjusted at any time with the included SAL-T humidity standards.

LabSwift-aw set consisting of :

- Measurement device LabSwift-aw
- External universal power supply
- Battery incl. electronics (built in)
- SD card
- 3 SAL-T: 11, 58, 84% RH
- 40 sample dishes ePW
- Spare pre-filters white (5 pcs)
- Tension ring
- Operating instructions
- Factory calibration certificate of the 6-point calibration 11-33-58-75-84-90%

Weight : 3.100 kgs

Accessories for *Lab*Swift-aw

External power supply

260 0505 with universal plug

External power supply with universal plug insert for all socket standards

Power supply and battery charger

Attention: Please use only the external power supply delivered by Novasina.

Power supply:

90-264 VAC / 50-60Hz

Output : 5 VDC / 10W

Plug : Stereo plug (instrument side) Diameter 4 mm

Weight : 130 g

260 0187 Battery set

Battery set to *Lab*Swift-aw

Lithium-Ions rechargeable battery & electronics

Optional battery set for mobile power supply of the LabSwift-aw. In continuous operation the LabSwift-aw runs >20 hours with this battery.

Attention: The assembly of the battery shall only be made by a qualified Novasina representative.

Battery set to LabSwift-aw:

Lithium-Ions rechargeable battery with electronics :

Battery with PCB
5VDC 1700 mAh

Weight : 50 g

260 0188 **PC-SW Novalog MC**

PC software

This optional Windows software allows the analysis and graphical display of the data stored on the SD-card.

Consisting of:

CD with Novalog MC software for Windows system

Weight: 180g

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111 0601 **ePW sample dishes**

Sample dishes ePW

Box with 100 sample cups.

These cups are for all Novasina aw instruments. They are disposable, intended for a single use.

A box contains:

100 sample cups ePW

Material : Polypropylene

Dimensions : 40mm diameter x 12mm depth
Weight : 440 g

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111 0930 -> **SAL-T 11% RH**
111 0932 -> **SAL-T 33% RH**
260 0189 -> **SAL-T 58% RH**
111 0936 -> **SAL-T 75% RH**
111 9886 -> **SAL-T 84% RH**
111 0938 -> **SAL-T 90% RH**

SAL-T salt tablets

Humidity standards based on saturated salt solutions in plastic tablets with humidity-permeable membranes. Each salt is delivered in an airtight can. SAL-T are available with the following humidity values (at 25°C):

11.3 %	**colour**	**white**
32.8 %	**colour**	**blue**
57.6 %	**colour**	**white**
75.3 %	**colour**	**purple**
84.3 %	**colour**	**white**
90.1 %	**colour**	**white**

(DG see general terms of sales)

Humidity values in the temperature range 15° .... 30°C:

11.3 ..... 11.3% rh
33.3 ..... 32.4% rh
60.7 ..... 56.0% rh
75.6 ..... 75.1% rh
85.9 ..... 83.6% rh
90.9 ..... 89.9% rh

The precision corresponds to eg. the Greenspan Report 1977 typically +/- 0.3 % rh

Weight: 50 g each

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111 1056 -> **SAL-T/C 11% RH**
111 1057 -> **SAL-T/C 33% RH**
260 0190 -> **SAL-T/C 58% RH**
111 1063 -> **SAL-T/C 75% RH**
260 0276 -> **SAL-T/C 84% RH**
111 1065 -> **SAL-T/C 90% RH**

Salt tablets SAL-T/C certified *with European certificate*

Humidity standards based on saturated salt solutions in plastic tablets with humidity-permeable membranes. Each salt is delivered in an airtight can. SAL-T are available with the following humidity values (at 25°C):

11.3 %	**colour white**
32.8 %	**colour blue**
57.6 %	**colour white**
75.3 %	**colour purple**
84.3 %	**colour white**
90.1 %	**colour white**

(DG see general terms of sales)

Internationally accredited laboratory:

All Novasina humidity standards are also available with an internationally recognised certificate from an accredited European laboratory (UKAS England)

Weight: 50g each

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260 0191 **Carrying case with 5 pcs SAL-T**

Set of 5 SAL-T salt tablets

Humidity standards based on saturated salt solutions in plastic tablets with humidity-permeable membranes. Each salt is delivered in an airtight can. The set consists of a case containing one each of the following values (at 25°C):

11.3 %	**colour white**
32.8 %	**colour blue**
57.6 %	**colour white**
75.3 %	**colour violet**
84.3 %	**colour white**

Case with 5 salt tablets
SAL-T for 11 ... 90%rh.

Humidity values in the temperature range 15° .... 30°C:

11.3 ..... 11.3% rh
33.3 ..... 32.4% rh
60.7 ..... 56.0% rh
75.6 ..... 75.1% rh
85.9 ..... 83.6% rh

The precision corresponds to the Greenspan Report 1977 typically +/- 0.3 % rh

Weight: 670 g

see price list UKAS certificate

Certification

of an aw measurement instrument in an accredited European laboratory

A UKAS-laboratory will certify the instrument at two or more humidity values and at several different temperatures if required.

Accredited lab:

Certified instruments can be also supplied.

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111 1001 -> **eVC-21**
111 1003 -> **eVC-26**
111 0995 -> **eVALC**

Cell protection filters

A number of filters are available to protect the measurement cell from abrasion or corrosive vapours.

-> Please consult the appropriate datasheets

Cell protection filters:

111 1001 -> eVC-21 (10 pcs)
111 1003 -> eVC-26 (10 pcs)
111 0995 > eVALC (2 pcs)

Weight: 30 g

Spare parts for *Lab*Swift-aw

260 0211 **Gasket : 1**
260 0183 **Pre-filter white : 2**
260 0210 **Tension ring : 3**

Spare parts to measurement head *Lab*Swift-aw

1 Gasket to LabSwift-aw
Recommendation: Seal ring should be replaced regularly and should be lubricated with silicone.

2 Pre-filter white, 5 pcs

3 Tension ring for filter fixation

Spare parts to LabSwift-aw:

- Gasket
- Pre-filter white
- Tension ring

Weight : **1** : 10 g
2 : 10 g
3 : 5 g

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260 0193 **SD card**

SD card to *Lab*Swift-aw

SD-card for measurement data and protocol storage. The data can be analysed by spreadsheet programs or by the optional Novalog MC PC-software.

Consisting of:

- SD memory card
- Blister

Weight: 6g

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111 9983 **CM-2 meas. cell**

CM-2 measurement cell

Replaceable, calibrated measurement system with calibration point memory on the basis of the unique Novasina „Novalyte“ technology. The inbuilt active heating element avoids a condensation on the humidity sensing element.

Attention : *in no case touch the front area of the measurement cell. Neither with hands nor with any other object!*

Measurement system CM-2:

Meas. range : 0.03…1.00a_w
corresponds : 3...100% RH
Operating temp. : 5 … 45°C
(inside LabSwift)
Storage temp. : 0…50°C
Storage humidity : 10....80% RH
not condensing
Meas. accuracy : +/- 0.01 a_w
+/- 1.0 % RH
Reproducibility : +/- 0.003a_w
No internal temp. measurement
Weight : ca. 2 g