



## General Catalogue AW

2014

## Water activity measurement instruments

for





Manufacturer:

Novasina AG

Neuheimstrasse 12, CH-8853 Lachen, Switzerland Telephone +41 55 642 67 67 Fax +41 55 642 67 70

www.novasina.com E-Mail: info@novasina.ch







## **Table of contents**

Portable water activity instrument LabStart-aw	3
Accessories	
Spare parts	
Mobile water activity instrument LabSwift-aw	7
Accessories	8
Spare parts	
Touch screen water activity instrument LabTouch-aw	11
Accessories	13
Spare parts	14
Upgrade	15
Bench top water activity instrument LabMaster-aw	16
Accessories (LabMaster only)	
Multi-Channel bench top system LabMaster/Partner-aw	18
Accessories (LabMaster & LabPartner)	19
Spart parts (LabMaster & LabPartner)	21
Upgrade & Updates (LabMaster & LabPartner)	22
Application overview (which instrument for which application)	23









Portable low cost precision instrument for water activity measurement (aW) in foodstuff and powder products

This compact low cost water activity measurement device is intended for a mobile measurement directly at-line and has been developed for standard applications and for users, who want to start with the water activity measurement.

Its accuracy can be checked at any time using re-usable saturated salt calibration standards.

The LabStart-aw is delivered including all necessary accessories.



Measurement range aw : 0.20 ... 0.80a<sub>w</sub>
Measurement range temp. : 15 ... 30°C

Sensor : with resistive-electrolytic

measurement cell CM-4

**Accuracy** :  $+/- 0.03 a_w +/- 0.3 K$ 



#### LabStart-aw

Mobile, accurate, reliable and low cost

A good start is essential for every project and undertaking. That is why the LabStart-aw has been developed to introduce quality managers, production personnel and laboratory technicians to water activity measurement. This instrument is simple- to- operate, providing basic measurement functions, yet still having built-in automatic equilibrium detection and the well-proven resistive-electrolytic sensor technology as employed in all Novasina water activity meters. As standard, the LabStart-aw is supplied with one re-useable humidity calibration standard which provides a very economical solution to precision water activity measurements in one simple kit. Furthermore, the calibration standard is an easy method for verification of the instrument's high performance.

Optional chemical protection filters assist with high solvent – content samples, as well as accurate water activity detection with high repeatability.

Although the LabStart-aw is a starter instrument, it offers great value, is simple and easy-to-use.

Are you ready to begin your water activity measurements?

#### Typical samples:

- · Pastries, bread and similar
- Cereals
- Spices
- Powders, dried samples
- Dried foodstuff in general

#### Measurement device LabStart-aw:

Dimensions : 85x140x225 mm (HxWxL)

Weight : 1.2 kg

Power supply: External supply

Operation ranges:

 $\begin{array}{lll} \text{Temperature} & : 15 \dots 30 \ ^{\circ}\text{C} \\ \text{a}_{\text{W}} & : 0.20 \dots 0.80 \ \text{a}_{\text{W}} \\ \end{array}$ 

#### Humidity sensor:

Electrolyte measurement cell

Type : **CM-4** incl. stored

calibration values (33, 75%RH)

#### Temperature measurement:

Precision NTC temperature sensor

#### Humidity standards Salt tablets SAL-T:

Various re-usable salt solutions are available for instrument verification and calibration. For more information please consult the chapter accessories.





#### LabStart-aw set



LabStart-aw set 260 0992 including power supply

#### LabStart-aw set

The new LabStart-aw is a precise and handy instrument for the aw-value measurement of foodstuff, powder products. It is delivered including all accessories.

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

#### LabStart-aw set consisting of :

- Measurement device LabStart-aw
- External universal power supply
- 1 SAL-T: 75% RH
- 25 sample dishes ePW
- Spare pre-filters white (5 pcs)
- Tension ring
- Factory certificate of 2-point calibration 33% and 75% RH

Weight: 1.500 kgs

#### Accessories for LabStart-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

Stereo plug

(instrument side) Diameter 4 mm

Weight: 130 g

Plug :



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



<u>111</u>	7440	->	SAL-T	4%	RH
			SAL-T		
<u>111</u>	0930	->	SAL-T	11%	RH
<u>111</u>	0932	->	SAL-T	33%	RH
<u>111</u>	0934	->	SAL-T	53%	RH
<u> 260</u>	0189	->	SAL-T	58%	RH
<u>111</u>	0936	->	SAL-T	75%	RH
<u>111</u>	9886	->	SAL-T	84%	RH
<u>111</u>	0938	->	SAL-T	90%	RH
<u>111</u>	9887	->	SAL-T	97%	RH

#### SAL-T salt tablets

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 following humidity values (at 25°C):

3.4 %	colour	white
6.4 %	colour	white
11.3 %	colour	white
32.8 %	colour	blue
52.9 %	colour	green
57.6 %	colour	white
75.3 %	colour	purple
84.3 %	colour	white
90.1 %	colour	white
97.3 %	colour	yellow

Important: please consult the operation manual of your instrument to see which points can be calibrated. Other SAL-T can be used for verification.

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

4.3 3.0% rn
6.9 6.2% rh
11.3 11.3% rh
33.3 32.4% rh
55.9 51.4% rh
60.7 56.0% rh
75.6 75.1% rh
85.9 83.6% rh
90.9 89.9% rh
97.9 97.0% rh

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

Weight : 50 g each



#### Accessories for LabStart-aw





111 7000 -> SAL-T/C 6% RH
111 1056 -> SAL-T/C 11% RH
111 1057 -> SAL-T/C 33% RH
111 0060 -> SAL-T/C 53% 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
111 9981 -> SAL-T/C 97% 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):

6.4 %	colour white	75.3 %	colour purple
11.3 %	colour white	84.3 %	colour white
32.8 %	colour blue	90.1 %	colour white
52.9 %	colour green	97.3 %	colour yellow
57.6%	colour white		•

**Important:** please consult the operation manual of your instrument to see which points can be calibrated. Other SAL-T can be used for verification.

## 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



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 purple
843%	colour white

#### Case with 5 salt tablets

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

Ū		
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.



111 1001 -> eVC-21 111 1003 -> eVC-26 111 0995 -> eVALC 111 0997 -> eVMT-2



111 7212 -> Redox

#### **Cell protection filters**

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

-> Please consult the Novasina filter data sheet for more details about the sample substances and the correct selection of the most suitable filter for your application.

#### **Cell protection filter REDOX**

Special protection filter against volatiles such as aromatic substances, ethanol, glycol etc. which can be present in a sample.

**Important:** this filter is subject to saturation, therefore it must be checked and replaced regularly.

-> Please consult the Novasina filter data sheet for more details about the sample substances and the correct selection of the most suitable filter for your application.

#### Cell protection filters:

**111 1001** -> eVC-21 (10 pcs)

111 1003 -> eVC-26 (10 pcs)

**111 0995** > eVALC (2 pcs)

111 0997 -> eVMT-2 (5 pcs)

Dimensions : 36 x 3mm

Weight: 30 g each filter

#### Cell protection filters:

111 7212 -> Redox (1 pc)

Dimension : 36 x 3mm

Weight : 60 g



#### Spare parts for LabStart-aw



#### Spare parts for LabStart-aw



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

#### Spare parts to measurement head LabStart-aw:

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

- 2 Pre-filter white, 5 pcs
- 3 Tension ring for filter fixation

**Remark:** these spare parts are the same as used for LabSwift-aw and LabTouch-aw

#### Spare parts to LabSwift-aw:

- Gasket
- Pre-filter white
- Tension ring

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



260 0993 CM-4 measurement cell

#### CM-4 measurement cell

#### (only for LabStart-aw instruments)

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

**Attention:** do not touch the top of the measurement cell. Neither by hand nor with any other object!

#### Measurement system CM-4:

 $\begin{array}{lll} \text{Meas. range} & : 0.03...1.00a_w \\ \text{Storage temp.} & : 0...50^{\circ}\text{C} \\ \text{Storage humidity} & : 10....80\% \text{ RH} \end{array}$ 

Calibrated at the following points: 33% and 75% RH

Weight : approx. 2 g









## *Lab*Swift-aw

Portable, battery powered precision instrument for water activity measurement (aW) in foodstuff, pharmaceuticals, 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 quality parameter water activity (aW) directly at-line or in small laboratories.

Its accuracy can be checked at any time using re-usable saturated salt calibration standards.

The instrument is delivered incl. all accessories and carrying case.

Measurement range aw : 0.11 ... 0.90aw, (non condensing)

Measurement range temp. : 5 ... 45°C

Sensor : with resistive-electrolytic

measurement cell CM-2

Accuracy :  $+/- 0.01 a_w$ , +/- 0.15 K

Communication : SD card -> PC



#### LabSwift-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-lons 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..

#### Typical samples:

- · Pastries, bread and similar
- Cereals
- Milk powder, spices
- Powders, dried samples
- Dried foodstuff in general

## Measurement device LabSwift-aw:

Dimensions : 85x140x225 mm (HxWxL)

Weight : 1.2 kg

Power supply: External supply and/or

Lithium-lons battery (optional) 1700 mAh

#### Operation ranges:

Temperature : 5 ... 45 °C a<sub>w</sub> : 0.11 ... 0.90 a<sub>w</sub>

#### **Humidity sensor:**

Electrolyte measurement cell

Type : **CM-2** incl. stored

calibration values (11, 33, 58, 75, 90%RH)

#### Temperature measurement:

Precision infrared surface sensor as well as NTC temperature sensor

#### Humidity standards Salt tablets SAL-T:

Various re-usable salt solutions are available for instrument verification and calibration. For more information please consult the chapter accessories



#### Measurement instrument LabSwift-aw



LabSwift-aw sets

#### LabSwift-aw set (without battery)



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

#### LabSwift-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

#### LabSwift-aw Set (with battery)



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

#### LabSwift-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-lons 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 certificate of 6-point calibration, 11-33-58-75-84-90%

Weight: 3.100 kgs

#### Accessories for LabSwift-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

<u>Attention:</u> 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



#### Battery set to LabSwift-aw

Lithium-lons 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-lons rechargeable battery with electronics :

Battery with PCB : +3.7 VDC Capacity : 1700 mAh

Weight: 50 g

For LabSwift-aw only!



#### Accessories for LabSwift-aw





260 0188 PC-SW Novalog MC

#### PC software NovaLog MC

This optional Windows software allows the analysis and graphical display of the measurement data.

#### Software suitable for :

Windows 98/2000/XP/Vista and Windows 7

#### Consisting of:

CD with Novalog MC software for Windows system

Weight: 180g



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



	<u>111</u>	7440	<u>)</u> ->	SAL-	T 4%	RH
	111	6453	} ->	SAL-	T 6%	RH
	111	0930	) ->	SAL-	T 11%	RH
	111	0932	->	SAL-	T 33%	RH
	<u>111</u>	0934	->	SAL-	T 53%	RH
3	<b>260</b>	0189	->	SAL-	T 58%	RH
	111	0936	->	SAL-	T 75%	RH
	111	9886	<b>)</b> ->	SAL-	T 84%	RH
	111	0938	<b>3</b> ->	SAL-	T 90%	RH
ì	111	9887	<b>7</b> ->	SAL-	T 97%	RH

#### **SAL-T salt tablets**

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 following humidity values (at 25°C):

3.4 %	colour	white
6.4 %	colour	white
11.3 %	colour	white
32.8 %	colour	blue
52.9 %	colour	green
57.6 %	colour	white
75.3 %	colour	purple
84.3 %	colour	white
90.1 %	colour	white
97.3 %	colour	yellow

**Important:** please consult the operation manual of your instrument to see which points can be calibrated. Other SAL-T can be used for verification.

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

4.3	3.0%	rh
6.9	6.2%	rh
11.3 11	1.3%	rh
33.3 32	2.4%	rh
55.9 51	1.4%	rh
60.7 56	3.0%	rh
75.6 75	5.1%	rh
85.9 83	3.6%	rh
90.9 89	9.9%	rh
97.9 97	7.0%	rh

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

Weight: 50 g each

# CERTIFICATE OF CALIBRATION GRADE TO LITTLE AND ADDRESS AND ADDRES

<u>111</u>	7000	->	SAL-T/C	6%	RH
<u>111</u>	1056	->	SAL-T/C	11%	RH
<u>111</u>	1057	->	SAL-T/C	33%	RH
111	0060	->	SAL-T/C	53%	RH
<b>260</b>	0190	->	SAL-T/C	58%	RH
111	1063	->	SAL-T/C	75%	RH
<b>260</b>	0276	->	SAL-T/C	84%	RH
111	1065	->	SAL-T/C	90%	RH
<u>111</u>	9981	->	SAL-T/C	97%	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):

6.4 %	colour white	57.6 %	colour white
11.3 %	colour white	75.3 %	colour purple
32.8 %	colour blue	84.3 %	colour white
52.9 %	colour green	90.1 %	colour white
	•	97.3 %	colour yellow

**Important:** please consult the operation manual of your instrument to see which points can be calibrated. Other SAL-T can be used for verification.

## 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



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 75.3 % colour purple 32.8 % colour blue 84.3 % colour white 57.6 % colour white

#### Case with 5 salt tablets

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

The precision corresponds to the Greenspan Report 1977

typically +/- 0.3 % rh Weight : 670 g



#### Accessories & spare parts for LabSwift-aw





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.



111 1001 -> eVC-21 111 1003 -> eVC-26 111 0995 -> eVALC 111 0997 -> eVMT-2



111 7212 -> Redox

#### **Cell protection filters**

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

-> Please consult the Novasina filter data sheet for more details about the sample substances and the correct selection of the most suitable filter for your application.

#### **Cell protection filter REDOX**

Special protection filter against volatiles such as aromatic substances, ethanol, glycol etc. which can be present in a sample.

**Important:** this filter is subject to saturation, therefore it must be checked and replaced regularly.

-> Please consult the Novasina filter data sheet for more details about the sample substances and the correct selection of the most suitable filter for your application.

#### Cell protection filters:

111 1001 -> eVC-21 (10 pcs) 111 1003 -> eVC-26 (10 pcs) 111 0995 > eVALC (2 pcs) 111 0997 -> eVMT-2 (5 pcs)

Dimensions : 36 x 3mm

Weight: 30 g each filter

#### Cell protection filters:

111 7212 -> Redox (1 pc)

Dimension: 36 x 3mm

Weight : 60 g

#### Spare parts for LabSwift-aw



 260 0211
 Gasket
 : 1

 260 0183
 Pre-filter white
 : 2

 260 0210
 Tension ring
 : 3

#### Spare parts to measurement head LabSwift-aw:

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

2 Pre-filter white, 5 pcs

3 Tension ring for filter fixation

**Remark:** these spare parts are the same as used for LabStart-aw and LabTouch-aw

#### Spare parts to LabSwift-aw:

Gasket

Pre-filter white

Tension ring

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



260 0193 SD card

#### SD card to LabSwift-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 2 GB
- Blister

Weight: 6g

111 9983 CM-2 measurement 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 condensation on the humidity sensing element.

**Attention:** do not touch the top of the measurement cell. Neither by hand nor with any other object!

#### Measurement system CM-2:

 $\begin{array}{lll} \text{Meas. range} & : 0.03...1.00a_w \\ \text{Storage temp.} & : 0...50^{\circ}\text{C} \\ \text{Storage humidity} & : 10....80\% \text{ RH} \end{array}$ 

Fully calibrated at 9 calibration points

Weight : approx. 2 g





## *Lab*Touch-aw







The new laboratory instrument WITH TOUCH-SCREEN for water activity measurement in foodstuff, drugs and cosmetic products.

Measurement device with touch-screen combined with a semitemperature-stabilised measurement chamber for consistent and reproducible measurement results (aw-value).

The LabTouch-aw, with its ergonomic design and the touchscreen, makes water activity measurements easier than ever before. Semi-temperature-control and active sample temperature measurements by an integrated infrared sensor, provide the highest possible reliability of measurements.

:  $0.06 \dots 0.97a_w$ , (non condensing) Measurement range aw Measurement range temp. : 5 ... 45°C

: with resistive-electrolytic Sensor measurement cell CM-2

: +/-  $0.005 a_w$ , +/- 0.15 KAccuracy

Communication : RS-232, USB

2x RS-485 for add. chambers SD card -> PC (NovaLog MC)



#### LabTouch-aw

Fast, accurate, reliable, easy to operate

Experience the next generation of high quality water activity meters made by Novasina. Touch a new world, driven by the ease of use and fast menu access by a touch-screen combined with a semitemperature-stabilised measurement chamber for consistent and reproducible measurement results (aw-value). The latest sensor and measurement technology coupled with re-useable humidity calibration standards provide a very economical solution to precision water activity measurements . Furthermore, the standards are an easy method for double-checking the instrument and sensor's high performance.

All measurement data, including the important protocols are stored on a SD card and can be transferred to a PC or printer. Special software is available for viewing results and analysis of the data. This assures confidence in readings for quality assurance and traceability of all measurement values.

The LabTouch-aw assures high accuracy and reproducibility, longterm stability, ease of use and an economical measurement system. Get ready for the new standard for aw-value measurement.

#### Typical samples:

- Lean meat, fresh meat
- Bakery products with filling
- Fruits, dried products, milk powder, spices
- Chocolate
- Cosmetics
- Petfood

#### Measurement device LabTouch-aw:

Dimensions: 105 x 200 x 300mm (HxWxL) Touch-screen: 55 x 95mm (color LCD)

: 2.8 kg Power supply : External supply

#### **Operation ranges:**

Temperature : 5 ... 45 °C : 0.06 ... 0.97 a<sub>w</sub>

#### Humidity sensor:

Electrolyte measurement cell

Type : CM-2 incl. stored

calibration values (11, 33, 58, 75,84, 90, 97%RH)

#### Temperature measurement:

Precision infrared surface sensor as well as NTC temperature sensor

#### Meaasurement chamber temp. control:

Accuracy : +/- 0.05° K

Chamber temperature must be always +2°C above environmental temperature.

#### **Humidity standards** Salt tablets SAL-T:

Various re-usable salt solutions are available for instrument verification and calibration. For more information please consult the chapter accessories.



#### Measurement instrument LabTouch / Click-aw



#### LabTouch-aw "BASIC"

single-channel



260 0775 LabTouch-aw "BASIC"

#### LabTouch-aw "BASIC"

Bench-top laboratory measurement instrument with semi-temperature controlled measurement chamber and touch-screen.

Further functions:

- Stability parameter, time & date displayed on LCD screen
- Semi-temperature-stabilized measurement chamber
- · Re-usable SAL-T humidity standards
- · Fast and precise thanks to "Novalyte" technology
- · Specific chemical sensor protection filters available
- Calibration data is stored on the sensor
   Data logging function with SD card
- Factory calibration at 7 aW-value points
- Checking, testing and adjusting possibilities with SAL-T humidity standards

#### LabTouch-aw includes:

Dimensions: 200 x 300x 95 mm Weight: 2.800 kg

- Measurement device LabTouch
- External universal power supply
- SD card 2GB Memory
- 4 SAL-T: 33, 58, 75, 84% RH
- 40 sample dishes ePW
- Spare pre-filters white (5 pcs)
- Tension ring
- Operating instructions
- Factory certificate of 7-point calibration,

11-33-58-75-84-90-97%

#### LabTouch-aw "ADVANCED"

multi-channel system



The flexible *Lab*Touch-aw system can be extended by max. 2 additional external *Lab*Click-aw chambers. This offers a higher measurement capacity running 2 or 3 chambers contemporaneously. The calibration and system management is made by the *Lab*Touch-aw "ADVANCED". The external chambers can be put in a climatic chamber if required.



260 0776 LabTouch-aw "ADVANCED"

#### LabTouch-aw "ADVANCED"

Bench-top laboratory measurement instrument with semi-temperature controlled measurement chamber and touch-screen.

Further functions:

- Stability parameter, time & date displayed on LCD screen
- Semi-temperature-stabilized measurement chamber
- Re-usable SAL-T humidity standards
- Fast and precise thanks to "Novalyte" technology
- Specific chemical sensor protection filters available
- Calibration data is stored on the sensor
- Data logging function with SD card
- Factory calibration at 7 aW-value points
- Checking, testing and adjusting possibilities with SAL-T humidity standards
- Option to connect max. 2 external chambers LabClick-aw

#### LabTouch-aw includes:

Dimensions: 200 x 300x 95 mm

Weight : 2.800 kg

- Measurement device LabTouch
- External universal power supply
- SD card 2 GB Memory
- 4 SAL-T: 33, 58, 75, 84% RH
- 40 sample dishes ePW
- Spare pre-filters white (5 pcs)
- Tension ring
- Operating instructions
- Factory certificate of 7-point calibration, 11-33-58-75-84-90-97%
- Novalog MC software
- USB interface

#### LabClick-aw



260 0838 LabClick-aw

External chamber with 2-line LCDisplay to be connected to a LabTouch-aw "ADVANCED" for extended measurement capacity. Operation and calibration is made by the main unit LabTouch-aw "ADVANCED".

**Remark:** The LabClick-aw has NO semi-temperature stabilized measurement chamber. Make sure the ambient temperature is stable during the measurement or place the instrument inside a climatic chamber.

#### LabClick-aw includes:

Dimension s: 140 x 225x 80 mm Weight: 1.600 kgs

- Measurement device LabClick-aw
- External universal power supply
- Connection cable 1.8 m
- Operating instructions
- Factory certificate of 6-point calibration, 11-33-58-75-84-90%

<u>Remark:</u> pre-filters, SAL-T and sample dishes are not included



#### Accessories for LabTouch / Click-aw



#### Accessories for LabTouch-aw

for "BASIC" and "ADVANCED"



External power supply 26<u>0</u> 050<u>5</u> with universal plug

## External power supply with universal plug insert for all socket standards

Power supply and battery charger (for *Lab*Swift-aw with akku). The same power supply is ready for the *Lab*Touch-aw and *Lab*Click-aw.

<u>Attention:</u> 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

Cable length: approx. 1.5 m



260 0188 PC-SW Novalog MC

#### PC software NovaLog MC

This optional Windows software allows the analysis and graphical display of the measurement data.

#### Software suitable for :

Windows 98/2000/XP/Vista and Windows 7

#### Consisting of:

CD with **Novalog MC** software for Windows system

Weight: 180g



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



<u>111</u>	7440	->	SAL-T	4%	RH
<u>111</u>	<u>6453</u>	->	SAL-T	6%	RH
111	0930	->	SAL-T	11%	RH
<u>111</u>	0932	->	SAL-T	33%	RH
111	0934	->	SAL-T	53%	RH
<b>260</b>	0189	->	SAL-T	58%	RH
<u>111</u>	0936	->	SAL-T	75%	RH
111	9886	->	SAL-T	84%	RH
<u>111</u>	0938	->	SAL-T	90%	RH
<u>111</u>	9887	->	SAL-T	97%	RH

#### **SAL-T salt tablets**

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 following humidity values (at 25°C):

colour	white
colour	white
colour	white
colour	blue
colour	green
colour	white
colour	purple
colour	white
colour	white
colour	yellow
	colour colour colour colour colour colour colour

**Important:** please consult the operation manual of your instrument to see which points can be calibrated. Other SAL-T can be used for verification.

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

4.3 3.09	% rh
6.9 6.29	% rh
11.3 11.39	6 rh
33.3 32.49	6 rh
55.9 51.49	6 rh
60.7 56.09	6 rh
75.6 75.19	6 rh
85.9 83.69	6 rh
90.9 89.99	6 rh
97.9 97.09	6 rh

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

Weight: 50 g each



<u>111</u>	7000	->	SAL-T/C	6%	RH
<u>111</u>	1056	->	SAL-T/C	11%	RH
<u>111</u>	1057	->	SAL-T/C	33%	RH
<u>111</u>	0060	->	SAL-T/C	53%	RH
<b>260</b>	0190	->	SAL-T/C	58%	RH
111	1063	->	SAL-T/C	75%	RH
<b>260</b>	0276	->	SAL-T/C	84%	RH
111	1065	->	SAL-T/C	90%	RH

111 9981 -> SAL-T/C 97% 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):

6.4 %	colour white	57.6 %	colour white
11.3 %	colour white	75.3 %	colour purple
32.8 %	colour blue	84.3 %	colour white
52.9 %	colour green	90.1 %	colour white
	_	97.3 %	colour yellow

**Important:** please consult the operation manual of your instrument to see which points can be calibrated. Other SAL-T can be used for verification.

## 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



#### Accessories & spare parts for LabTouch / Click-aw





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 %		blue
57.6 %	colour	white
75.3 %	colour	purple
84.3 %	colour	white

#### Case with 5 salt tablets

SAL-T for 11 ... 90%rh.

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

. 3		
11.3	11.3%	rŀ
33.3	32.4%	rŀ
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.



111 1001 -> eVC-21 111 1003 -> eVC-26 111 0995 -> eVALC 111 0997 -> eVMT-2

#### Cell protection filters

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

-> Please consult the Novasina filter data sheet for more details about the sample substances and the correct selection of the most suitable filter for your application.

#### Cell protection filters:

111 1001 -> eVC-21 (10 pcs) 111 1003 -> eVC-26 (10 pcs) 111 0995 > eVALC (2 pcs) 111 0997 -> eVMT-2 (5 pcs)

Dimensions: 36 x 3mm

Weight : 30 g each filter



111 7212 -> Redox

#### **Cell protection filter REDOX**

Special protection filter against volatiles such as aromatic substances, ethanol, glycol etc. which can be present in a sample.

**Important:** this filter is subject to saturation, therefore it must be checked and replaced regularly.

-> Please consult the Novasina filter data sheet for more details about the sample substances and the correct selection of the most suitable filter for your application.

#### Cell protection filters:

111 7212 -> Redox ( 1 pc)

Dimension : 36 x 3mm

Weight : 60 g

#### Spare parts for LabTouch-aw

# 3 1 2

 260 0211
 Gasket
 : 1

 260 0183
 Pre-filter white
 : 2

 260 0210
 Tension ring
 : 3

#### Spare parts to measurement head LabTouch/Click-aw

- 1 Gasket to *Lab*Swift/Touch/Chamber-aw Recommendation: Seal ring should be replaced and lubricated regularly.
- 2 Pre-filter white (only dustfilter), 5 pcs
- 3 Tension ring for filter fixation

**Remark:** these spare parts are the same as used for LabStart-aw and LabSwift-aw

#### Spare parts chamber:

- Gasket
- Pre-filter white
- Tension ring

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



#### Spare parts / Upgrade - LabTouch / Click-aw





260 0193 SD card

#### SD card

SD-card for measurement data and protocol storage. The data can be analysed by spreadsheet programs

#### Consisting of:

• SD memory card

Blister

Memory: 2 GB

Weight: 6g



111 9983 CM-2 measurement 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 condensation on the humidity sensing element.

**Attention:** do not touch the top of the measurement cell. Neither by hand nor with any other object!

#### Measurement system CM-2:

 $\begin{array}{lll} \mbox{Meas. range} & : 0.03...1.00a_w \\ \mbox{Storage temp.} & : 0...50^{\circ}\mbox{C} \\ \mbox{Storage humidity} & : 10....80\% \ \mbox{RH} \end{array}$ 

Fully calibrated at 9 calibration points

Weight : approx. 2 g

#### Upgrade kit for LabTouch-aw

# 03010101 1001

#### Firmware upgrade "BASIC"-"ADVANCED"

Enables an upgrade from *Lab*Touch-aw "BASIC" to "ADVANCED".

#### Additional functions :

- Activation of RS-232 and USB Interface for NovaLog MC connections
- Multi-Channnel functions for connection of max. 2 LabClick
- including visualization Software NovaLog MC

#### Upgrade for LabTouch-aw:

- Firmware upgrade for additional functions :

#### **BASIC to ADVANCED level**

- NovaLog MC visualisation and analysis software
- USB / RS-232 interface cable 1,8m.

260 0893 Firmware upgrade



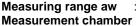






A professional laboratory instrument for a very precise measurement of aw values (water activity) in foodstuff, drugs, cosmetics etc.. The temp. of the measurement chamber may be set in the range from 0°C to 50°C and kept consistently with an accuracy of +/-0.2K.

This instrument runs the most used aw measuring technology, the electrolytic resistive principle. The advantages are appreciated by all users around the



temperature

selectable 0 ... 50°C

0.03 ... 1.00aw

+/- 0.2K

Sensor type electrolytic resistive

measurement cell CM-2

Accuracy +/- 0.003aw / +/- 0.2K at 25°C

when the system is calibrated at

7 points

Communication RS-232 interface, USB, PC

Software "Novalog MC"





A synonym for high-precision, flexibility, versatility and measurement speed

Well-proven laboratory instrument for reproducible, precise measurements under accurately controlled temperature conditions for all types of foodstuffs, cosmetics as well as dry pharmaceutical materials. The LabMASTER-aw is the only instrument that enables measurements under precisely controlled chamber temperature conditions, selectable in the following range: 0°C to 50°C, with an accuracy of 0.2K.

The device and its sensor are very robust and have an excellent long-term stability. The Novasina electrolytic resistive sensor delivers essentially hysteresis-free measurements. The implemented user management systems allows a simple and intuitive operation. The system is available in 3 different versions "BASIC" (single user), "STANDARD" (multi user) and "ADVANCED" (multi user and multi cannel). This improves considerably the cost efficiency.

The large, illuminated graphic LC display gives a clear overview. The menu software is simple and intuitive.

For a connection to a printer or a PC, a RS-232 or USB interface is build in the device. The visualisation PC-Software NOVALOG MC for Win9x/2000/NT/XP/Vista/Windows 7 is included in the delivery (except for the "BASIC" version). A recorder can be connected to the 0...10 volt analogue output.

#### Typical samples:

- All kind of bakery products
   Fresh meat and sausages
- Cheese, diary products
- Chocolate
- **Chemical substances**
- Fruit concentrate (solid & liquid)
- Pet food
- Pharmaceutical products, cosmetics

#### Water activity instrument LabMASTER-aw:

Surface area: width 26, depth 44 cm

: 9.8 kg

: 90V...260V, 50/60Hz, Mains supply

wide range power supply

#### Humidity sensor:

Electrolyte measurement cell CM-2

Range : 0.03...1.00aw

in the range of 0...50°C.

Accuracy : +/- 0.003aw at 25°C Resolution : 0.001aw / 0.1°C

#### Temperature sensor:

Precise NTC resistor

: -20...80°C Range Resolution : 0.1°C

#### Humidity standards Salt tablets SAL-T:

Various re-usable salt solutions are available for instrument verification and calibration. For more information please consult the chapter accessories



#### Measurement instrument LabMASTER-aw



#### LabMASTER-aw



111 9971 LabMaster-aw "BASIC"

#### LabMASTER-aw "BASIC"

Robust laboratory precision measurement instrument with temperature controlled measurement chamber. With integrated pre-conditionning chamber.

Further functions:

- Stability parameter, time & date displayed on LCD screen
- Memory for the last 10 aW stable value for each data file
- Stability val time can be defined directly before measurement
- Setting of measurement alarm limits
- Calibration reminder function

BASIC version = single-measurement & single-USER

Attention: no powercable included. Please order it separately.

#### Water activity instrument:

Ground surface: 26 x 44 cm (WxL) Weight : 9.800 kgs

#### Include:

- Sensor CM-2
- 6 humidity standards SAL-T: 11, 33, 58, 75, 84 and 97% rh (incl. factory calibration certificate)
- 50 sample dishes ePW
- Operating instructions

#### LabMASTER-aw "STANDARD"

Robust laboratory precision measurement instrument with temperature controlled measurement chamber. With integrated pre-conditionning chamber.

Further functions:

- Stability parameter, time & date displayed on LCD screen Memory for the last 10 aW stable value for each data file
- Stability val time can be defined directly before measurement
- Setting of measurement alarm limits
- Calibration reminder function
- Graphic display of aW measurement curve on LCD screen

STANDARD version = single-measurement & multi-USER

Attention: no powercable included. Please order it separately.

#### Water activity instrument:

Ground surface: 26 x 44 cm (WxL) Weight : 9.800 kgs

#### Include:

- Sensor CM-2
- 6 humidity standards SAL-T: 11, 33, 58, 75, 84 and 97% rh (incl. factory calibration certificate)
- 50 sample dishes ePW
- RS232 interface, PC cable 1.8m
- D-Sub 9M/9F, USB port & cable
- NovalogMC PC visual. software for Win9x/2000/NT/XP/Vista/ Windows 7
- Operating instructions

**111 9972** *Lab*Master-aw "STANDARD"

standard

#### Accessories for LabMASTER-aw



110 8568 Power cable CH: 1 110 8304 EU/Schuko 111 1748 Japan and USA : 3

#### Mains power cables

For connecting a LabMASTER-aw

Configured with the standard instrument connector at one end and the locally required power plug at the other.

#### Power cable:

Cable length: 1.5 m

For local power systems with appropriate plugs.

Weight: 260 g each

## NovaLog MC 260 0188 PC-SW Novalog MC

#### PC software NovaLog MC

This optional Windows software allows the analysis and graphical display of the data stored on the SDcard.

#### Software suitable for :

Windows 98/2000/XP/Vista and Windows 7

#### Consisting of:

CD with Novalog MC software for Windows system

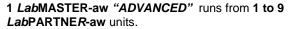
Weight: 180g





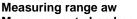
## **Multi-channel system** with LabPartner-aw

This professional laboratory instrument system allows to run from 2 to a maximum of 10 aw (water activity) measurement devices simultaneously for measuring the aw values in foodstuff, drugs and cosmetics:



The temperature of each chamber can be set in the range from 0°C to 50°C.

The "ADVANCED" instrument version completes ideally the LabMASTER-aw "BASIC" and "STANDARD". It allows an extension at any time and offer an outstanding cost efficiency.



Measurement chamber

selectable 0 ... 50°C temperature

+/- 0.2K

0.03 ... 1.00 aw

Sensor type electrolyte resistive

measurement cell CM-2

+/- 0.003aw / +/- 0.2K at 25°C Accuracy

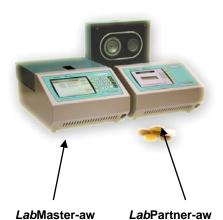
when the system is calibrated at

7 points

Repeatability +/- 0.002aw

Communication RS-232 or USB interface, per channel

#### PC- Software "Novalog MC" for single channel monitoring





Highest flexibility and cost efficiency at any time

The LabMASTER-aw series is a new laboratory instrument generation with the flexibility to add single channels, depending on your needs. Each channel provides reproducible and accurate aw value measurements in various types of samples. This makes the system very flexible and versatile with the possibility of extension at any time.

LabMASTER/LabPARTNER-aw sensors are very robust, excel in long-term characteristics and have been specifically developed for continuous operation. The unique properties of the electrolytic resistive sensors with their lack of hysteresis through the complete system yield very exact and reproducible measurements.

All measured values on each channel are displayed on a large, clearly arranged illuminated LC-Display. Each channel can be configured individually and optimised using a menu-driven procedure. The LabMASTER-aw "ADVANCED" includes a RS-232 or USB interface for the communication with a PC. The single channel software Novalog MC is included in the delivery of this device.

#### Typical samples:

- All kind of bakery products
   Fresh meat and sausages
- Cheese, diary products
- Chocolate
- **Chemical substances**
- Fruit concentrate (solid & liquid)
- Pet food
- Pharmaceutical products, cosmetics

#### Multi-Channel System:

#### LabMASTER-aw instrument:

Mains supply: 90V...260V, 50/60Hz, wide range power supply LabPartner is powered by

the LabMaster

#### LabMASTER / LabPARTNER-aw:

Surface area: width 26, depth 44 cm

Weight : 9.8 kg Humidity sensor:

Electrolyte measurement cell CM-2

: 0.03...1.00aw Range in the range of

0...50°C.

: +/- 0.003aw at 25°C Accuracy Resolution : 0.001aw / 0.1°C

#### Temperature sensor:

Precise NTC resistor

: -20...80°C Range Resolution : 0.1°C

#### **Humidity standards** Salt tablets SAL-T:

Various re-usable salt solutions are available for instrument verification and calibration. For more information please consult the chapter accessories.



#### LabMASTER / LabPARTNER-aw "multi-channel"



#### Multi-Channel System



111 9973 LabMASTER-aw "ADVANCED"

#### LabMASTER-aw "ADVANCED"

Robust laboratory precision measurement instrument with temperature controlled measurement chamber. With integrated pre-conditionning chamber.

Further functions:

- Stability parameter, time & date displayed on LCD screen
   Memory for the last 10 aW stable value for each data file
   Stability val time can be defined directly before measurement
- Setting of measurement alarm limits
- Calibration reminder function
- Graphic display of aW measurement curve on LCD screen

ADVANCED version: multi-measurement & multi-USFR

Attention: no power cable included. Please order it separately.

#### Water activity instrument:

Ground surface: 26 x 44 cm (WxL) : 9.800 kgs Weight

#### Include:

- Sensor CM-2
- 6 humidity standards SAL-T: 11, 33, 58, 75, 84 and 97% rh (incl. factory calibration certificate)
- 50 sample dishes ePW
- RS232 interface, PC cable 1.8m
- D-Sub 9M/9F, USB port & cable
- NovalogMC PC visual. software for Win9x/2000/NT/XP/Vista/ Windows 7
- Operating instructions



111 9974 LabPARTNER-aw

#### Additional channels:

#### LabPARTNER-aw

A robust laboratory instrument with highly-sensitive humidity and temperature sensors, temperature controlled measurement chamber. With integrated pre-conditionning chamber.

A power supply cable and a communication cable are provided to connect this instrument to the . LabMASTER-aw or to another LabPARTNER-aw.

#### Water activity instrument:

Ground surface: 26 x 44 cm (WxL) Weight : 9.800 kgs

#### Include:

- Sensor CM-2
- 6 humidity standards SAL-T: 11, 33, 58, 75, 84 and 97% rh (incl. factory calibration certificate)
- 50 sample dishes ePW
- Operating instructions

#### Accessories for LabMASTER-aw & LabPartner-aw



110 8568 Power cable CH: 1 110 8304 EU/Schuko 111 1748 Japan and USA : 3

#### Mains power cables

For connecting a LabMASTER-aw

Configured with the standard instrument connector at one end and the locally required power plug at the other.

#### Power cable:

Cable length: 1.5 m

For local power systems with appropriate plugs.

260 g each Weight



**111 9979** SI Set Master

#### SI, sorption isotherm set

for the LabMASTER-aw and LabPARTNER-aw

This accessory, together with the Novasina humidity standards SAL-T, makes it possible to easily determine several points of a sorption isotherm. Incl. a plastic case for transportation.

In addition, a precision balance and an oven are required.

#### SI-Set MASTER/PARTNER complete with:

- 1 large cup insert
- 1 substance basket
- 1 weighing glass
- 1 pair of tongs



#### Accessories for LabMASTER-aw & LabPARTNER-aw





111 1001 -> eVC-21 111 1003 -> eVC-26 111 7212 -> Redox 111 0995 -> eVMT-2

#### **Cell protection filters**

for all LabMASTER-aw and LabPARTNER-aw.

A number of filters is available to protect the measurement cell from aggressive volatiles or abrasion.

-> Please consult the Novasina filter data sheet for more details about the sample substances and the correct selection of the most suitable filter for your application.

### Filters for cell protection against volatiles:

eVC-21 (10 pieces)
eVC-26 (10 pieces)
Redox (1 piece)
eVALC (2 pieces)
eVMT-2 (5 pieces)

Weight: 30 g each filter



111 0601 ePW sample dishes

#### Sample dishes ePW

For all LabMASTER-aw and LabPARTNER-aw

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



111 7440 -> SAL-T 4% RH
111 6453 -> SAL-T 6% RH
111 0930 -> SAL-T 11% RH
111 0932 -> SAL-T 33% RH
111 0934 -> SAL-T 53% 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
111 9887 -> SAL-T 97% RH

#### SAL-T salt tablets

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 following humidity values (at 25°C):

3.4 %	colour	white
6.4 %	colour	white
11.3 %	colour	white
32.8 %	colour	blue
52.9 %	colour	green
57.6 %	colour	white
75.3 %	colour	purple
84.3 %	colour	white
90.1 %	colour	white
97.3 %	colour	yellow

**Important:** please consult the operation manual of your instrument to see which points can be calibrated. Other SAL-T can be used for verification.

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

4.3	. 3.0%	rn
	. 6.2%	
11.3	. 11.3%	rh
33.3	. 32.4%	rh
55.9	. 51.4%	rh
60.7	. 56.0%	rh
75.6	. 75.1%	rh
85.9	. 83.6%	rh
90.9	. 89.9%	rh
97.9	. 97.0%	rh

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

Weight : 50 g each



252 5418 Case with 6 Stk SAL-T for LabMaster and LabPartner-aw

#### Set of 6 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	purple
84.3 % colour	white
97.3 % colour	vellow

#### Case with 6 salt tablets

SAL-T for 11 ... 97%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 97.9 .... 97.0% rh

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

Weight : 710 g case



#### Accessories for LabMASTER-aw & LabPARTNER-aw





111 7000 -> SAL-T/C 6% RH 111 1056 -> SAL-T/C 11% RH 111 1057 -> SAL-T/C 33% RH 111 0060 -> SAL-T/C 53% 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 111 9981 -> SAL-T/C 97% 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):

6.4 %	colour white	57.6 %	colour white
	colour white		colour purple
	colour blue		colour white
52.9 %	colour green	90.1 %	colour white
	J		colour yellow

Important: please consult the operation manual of your instrument to see which points can be calibrated. Other SAL-T can be used for verification.

#### 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



s see on the pricelist

#### 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 also be supplied.

#### Spare parts for LabMASTER-aw & LabPARTNER-aw



111 9983 CM-2 measurement 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 condensation on the humidity sensing element.

Attention: do not touch the top of the measurement cell. Neither by hand nor with any other object!

#### Measurement system CM-2:

: 0.03...1.00a<sub>w</sub> Meas, range Storage temp. : 0...50°C Storage humidity : 10....80% RH

Fully calibrated at 9 calibration points

Weight : approx. 2 g



112 0174 O-Ring 112 0175 Metal mesh filter: 2 260 0210 Tension ring

#### Replacement parts for measuring chamber

- 1 O-ring seal for the measurement chamber. Recommendation: exchange the O-ring periodically.
- 2 Metal mesh filter.
- 3 Tension ring for clamping the filter.

#### Chamber replacement parts for LabMaster / Partner-aw:

- O-ring seal Weight: 1 g

- Metal mesh filter Weight: 30 g

- Tension ring Weight: 10 g





#### Upgrade Kits for LabMaster-aw



111 9975 License

## Upgrade License 1 "BASIC-STANDARD"

to upgrade a LabMASTER-aw basic

to a LabMASTER-aw standard.

with functionality extension code, PC software NovalogMC, cable 1.8m D-Sub 9M/9F, and USB cable 1.8m.

#### License 1

Software code for activating the additional software function from

#### BASIC to STANDARD

- Single to multi user management system
- PC-Tool NovaLog MC Software



111 9976 License

## Upgrade License 2 "STANDARD-ADVANCED"

to upgrade a *Lab*MASTER-aw *standard* to a *Lab*MASTER-aw *advanced*.

with functionality extension code to control up to 9 additional *Lab*PARTNER-aw units.

#### License 2

Software code for activating the additional software function from

#### STANDARD to ADVANCED

 Single chamber to multi chamber system with LabPartner-aw.



112 0171 License

## Upgrade License 3 "BASIC-ADVANCED"

to upgrade a LabMASTER-aw basic

to a LabMASTER-aw advanced.

with PC software NovalogMC, cable 1.8m D-Sub 9M/9F, USB cable 1.8m, and with functionality extension code to control up to 9 additional *Lab*PARTNER-aw units.

#### License 3

Software code for activating the additional software function from

#### BASIC to ADVANCED

- single to multi user management system
- PC-Tool NovaLog MC Software
- single to multi chamber system with LabPartner-aw.

#### Software Update for LabMaster-aw



260 0275 Update package

#### Update software package for LabMaster only "STANDARD" & "ADVANCED" models

Software package including update code for *Lab*Master-aw STANDARD & ADVANCED models. Applicable for instruments sold before the year 2010 with serial no.: 05..... to 09.....

So the LabMaster-aw instrument can be updated to the newest level and the user can benefit from the following extended functions.

#### Additional functions:

- Stability parameter is displayed on instrument LCD screen flashing alternately
- Actual time and date is displayed on instrument LCD screen flashing alternately
- Memory of the last 10 aW stable values for each data file (provided that the data base is used actively)
- Stable value time can be set directly before performing the measurement (faster adaptation in case of sample change)
- Selectable upper and lower alarm limits for measurement Calibration reminder function
- Graphical display of aW measurement curve on LCD

#### Update software package: LabMaster-aw:

- Software package incl. update activation code for extended functions for

**STANDARD** 

and

ADVANCED

models



#### Application overview - Which instrument for which application?



#### Is it really necessary to have different water activity meters?

Every sample has its own characteristics in terms of ingredients, texture, color and taste.

These in- turn influence the free water and finally the water activity each in a different way. These factors, plus the temperature influence, define the measurement time and the accuracy of the tests. Stable measurement conditions are finally the key to a successful quality control!

Novasina offers three types of water activity meters, carefully developed and designed, offering the most suitable solution to customers' samples and requirements:-

- **LabMaster-aw**: Top- of- the- range instrument with full temperature-controlled chamber. It can handle all types of samples from 0.03 to 1.00aw. Measurement accuracy +/- 0.003 aW.
- **LabTouch-aw**: Semi-temperature controlled measurement chamber, optimized for the measurement of aw values in the range of 0.06 to 0.97aw. Measurement accuracy +/- 0.005 aW.
- **LabSwift-aw**: portable aw-meter with no sample temperature control, thus environmental (lab) temperature is the measurement temperature. Suitable for low to medium aw-measurement in ranges of 0.11 to 0.90aw. Measurement accuracy +/- 0.01 aW.
- **LabStart-aw**: portable aw-meter with no sample temperature control, thus environmental (lab) temperature is the measurement temperature. Suitable for low to medium aw-measurement in ranges of 0.20 to 0.80 aw. Measurement accuracy +/- 0.03 aW.

Indicative instrument selection table:		runn		
	Lab <b>Master-</b> aw	Lab <b>Touch</b> -aw	Lab <b>Swift</b> -aw	Lab <b>Start</b> -aw
Lean Meat (fresh, dried, processed)	$\checkmark$	$\checkmark$	X	×
Fatty meat (sausages etc) (fresh, dried, processed)	$\checkmark$	X	×	×
Bakery products With fillings as jam, chocolate etc	$\checkmark$	$\checkmark$	×	×
Bread and bread products	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Cereals	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Fish	$\checkmark$	X	×	×
Chocolate incl. fillings, & confectionary	$\checkmark$	$\checkmark$	×	×
Powder, spices and dried products	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>
Milk powder, dry dairy products	$\checkmark$	$\checkmark$	$\checkmark$	X
Yogurt, cheese, processed milk	$\checkmark$	X	X	X
Pet food	$\checkmark$	$\checkmark$	X	X
Pharma products (API,)	$\checkmark$	X	X	X
Hygiene products (emulsion, creams,)	$\checkmark$	X	X	X