



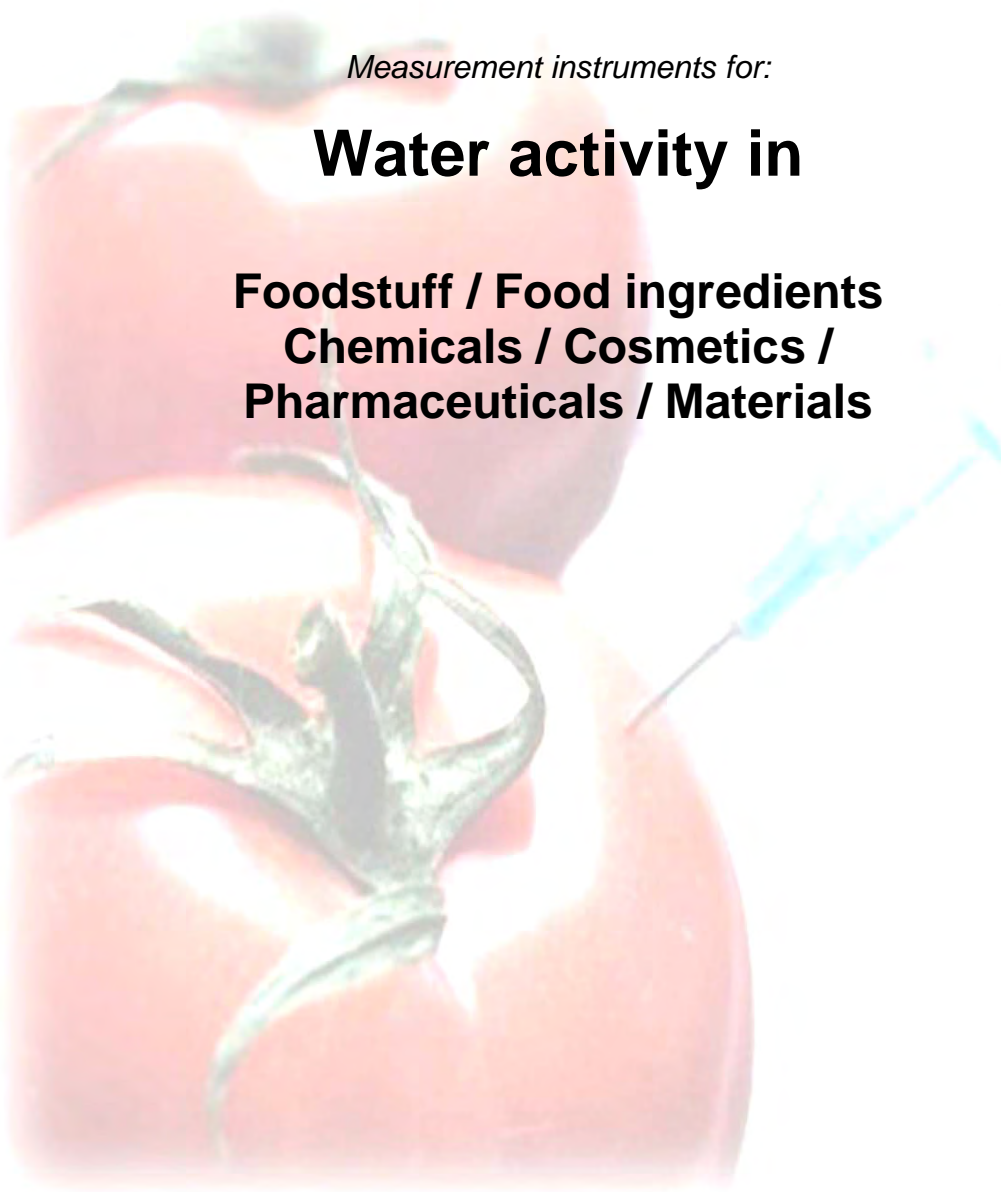
General catalogue

2011

Measurement instruments for:

Water activity in

**Foodstuff / Food ingredients
Chemicals / Cosmetics /
Pharmaceuticals / Materials**



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ms1 Set aw

A hand-held precision instrument for the measurement of aw values (water activity) in foodstuffs, pharmaceutical, chemical products as well as cosmetics.

A handy, easy-to-use, self-powered water activity measurement instrument set. Functions and accuracy can be checked at all times with saturated salt solution standards. The instrument is supplied in a practical plastic case, together with all required accessories.



aw range	:	0.06 ... 0.98aw , (not condensing)
Temperature	:	-20...+80°C
Sensor	:	enBSK-3 with a resistive electrolyte measurement cell
Precision	:	+/- 0.01aw , +/- 0.3°C
Communication	:	RS232 interface (optional)



ms1 Set aw

Precise, fast, flexible

A practical, 1'000-times proven precision hand-held measurement instrument for aw / relative humidity and temperature measurements. Thanks to the Novasina electrolyte sensor it is well-suited for precise aw measurements in many types of products. The instrument and its sensor are very robust, have excellent long-term stability and are practically hysteresis-free.

The large and clear LC display is very easy to read. The instrument is powered by a 9 V battery, but an additional mains power adapter is supplied to support long-term measurements. The sealed measurement probe cell is **not** temperature-controlled. The measuring chamber temperature is displayed at any time on the large LCD display. The instrument has a value stability trend display function. An optional RS-232 interface and supporting PC software is available for connecting a printer resp. a PC.

The instrument is delivered in a sturdy plastic carrying case with space for various additional accessories. Measurements can be made with the instrument in its case.

Examples of aw measurements with the **Set aw**:

- All forms of baked goods
- Meat, sausages and cheese
- Dried foodstuffs, fruit concentrates
- Cosmetics
- Pharmaceuticals, natural medicines
- Chemicals

Instrument ms1:

Dimensions	: 54x43x265mm
Weight	: 280 g
Power	: 9V Battery

Humidity sensor:

Electrolyte-Measurement cell	
Range	: 0.06...0.98aw
Repeatability	: +/- 0.003aw
Precision	: +/- 0.01aw
<i>(0.10...0.95aw, 25°C, with 5 point calibration)</i>	

Temperature sensor:

Precise NTC-Resistance	
Range	: -20...80°C
Repeatability	: +/- 0.1° C
Precision	: +/- 0.3° C

Humidity standards

Salt tablets SAL-T:

Saturated pure salt solutions, based on national standards are recommended:

see catalogue accessories



ms1 Set M

A hand-held precision instrument for the measurement of relative humidity of materials / the aw value (water activity of foodstuffs), and temperature.



For measurements of somewhat larger material samples, such as granulates, textiles, wood chips, sawdust, tobacco, tealeaves, herbs, potato crisps, biscuits, confectioneries, cereals, coffee beans etc.

Relative humidity measurements can also be performed if the sensor is open. The sintered filter provides excellent dust protection.

Set AMS is to be preferred for measurements in very large product volumes.

Measurement range	: 0.06 ... 0.98aw (not condensing)
Temperature	: -20...+80°C
Box sensor	: HSM-3 with resistive electrolyte measurement cell CK-3
Precision	: +/- 0.01aw, +/- 0.3°C
Communication	: RS 232 interface (optional)

Additional functions for relative humidity measurements in air (not applicable to humidity measurements in materials):

Mollier diagram:

the ms1 also computes and displays dew point temperature, mixing ratio, wet bulb temperature, specific enthalpy und partial water vapour pressure.



ms1 Set M

Precise, fast, flexible

A practical, 1'000 times proven precision, hand-held instrument for humidity and temperature measurements. Thanks to its Novasina electrolyte sensor, the ms1 is particularly well suited to high precision humidity measurements in a broad range of materials and also in air. The instrument and sensor are extremely robust, have excellent long-term stability and are essentially hysteresis-free.

The integrated computer supplements relative humidity measurements with a number of parameters of the Mollier hx-Diagram. The large and clear LCD display is easy to read. The instrument is battery powered, but an additional mains power supply is available to support long-term measurements. An optional RS 232 interface and supporting PC software is available for connecting a printer resp. a PC.

The instrument is delivered in a sturdy plastic carrying case with space for various additional accessories.

Examples of relative humidity measurements with the **Set M**:

- Relative humidity of plastic granulates
- Relative humidity of tea or tobacco leaves
- Relative humidity of Textile samples
- Relative humidity (or aw values) of foodstuffs, cereals coffee beans (see also Set AM und Set AMS)
- Room- or air duct humidity, dew point temperature etc.
- Cosmetics
- Medications, pharmaceuticals

Instrument ms1:

Dimensions	: 54x43x265mm
Weight	: 280 g
Power	: 9V Battery

Humidity sensor:

Electrolyte measurement cell	
Range	: 0.06 ... 0.98 aw
Repeatability	: +/- 0.003 aw
Precision	: +/- 0.01 aw
<i>(10...95% rh, 25°C, with 5 point calibration)</i>	

Temperature sensor:

Precise NTC-Resistance	
Range	: -20...80°C
Repeatability	: +/- 0.1° C
Precision	: +/- 0.3° C

Humidity standards

Salt tablets SAL-T:

Saturated pure salt solutions based on national standards are recommended:

see catalogue accessories



ms1 Set AMS



A hand-held precision instrument for measuring water activity (aw-value) and temperature in foods and pharmaceuticals.

Range aw	:	0.06...0.98aw, (not condensing)
Temperature	:	-20...+80°C
With stick sensor	:	enSARK-3
Precision	:	+/- 0.01aw, 0.3°C
Communications	:	Optional RS-232 interface

Extras when measuring relative air humidity (not available when measuring materials):

Mollier Diagram:

The ms1 also calculates and displays the dew point temperature, mixing ratio, wet bulb temperature, specific enthalpy and partial water vapour pressure.



ms1 Set AMS

Precise, fast, versatile

A practical, 1000 times-proven precision hand-held measuring instrument ms1 with an aw display for measuring the relative product humidity (aw value) and temperature. The Novasina electrolyte sensor makes it a useful instrument for making very precise humidity measurements in a wide range of foods and other materials.

The instrument and sensor are robust, have excellent long-term stability and are practically hysteresis free.

The large and clear LC display is very easy to read. The instrument is battery powered, but an additional mains power supply is available to support long-term measurements. An optional RS 232 interface and supporting PC software is available for connecting a printer resp. a PC.

The instrument is delivered in a sturdy plastic carrying case with space for various additional accessories.

Examples of measurements of aw values of large product samples using the **Set AMS** in transit, in a shop, warehouse or during production:

- Meat and sausages
- Cheeses
- Baked goods and cakes
- Processed foods
- Pharmaceuticals
- Cosmetics
- Chemicals

*For smaller product volumes, see also the **set aw**.*

Instrument ms1:

Dimensions	: 54x43x265mm
Weight	: 280 g
Power	: 9V battery

Humidity sensor:

Electrolyte measurement cell	
Range	: 6...98% aw (not condensing)
Repeatability	: +/- 0.003aw
Precision	: +/- 0.01aw (10...95% aw, 25°C, 5 point calibration).

Temperature sensor :

Precise NTC-resistance	
Range	: -20...80°C
Repeatability	: +/- 0.1° C
Precision	: +/- 0.3° C

Humidity standards

Salt tablets SAL-SC:

Saturated pure salt solutions based on national standards are recommended:

see catalogue accessories



ms1 Set aw



ms1 Set aw

The Set aw is a simple and precise entry-level set for important aw value measurements in the food sector. It consists of an ms1 hand-held instrument with a sealed measurement chamber, and a range of accessories all housed in a robust plastic case. The latter also has space for the optional RS232 interface for attachment to a PC or printer. SAL-T humidity standards are included for testing and recalibrating the measurement cell as required.

Carrying case with:

- Measurement instrument ms1 aw
 - Sensor enBSK-3/PP, with 0.5m cable
 - 9V Battery
 - 3 SAL-T: 11, 33, 75% rh
 - 40 disposable sample dishes ePW
 - Tweezers
 - User manual
 - Factory certificate of the 5-point calibration at 11-33-53-75-90%
- Weight: 2.900 kgs

[111 0137](#) ms1 Set AW 230V

[111 0150](#) ms1 Set AW 115V

ms1 Set M



ms1 Set M

The Set M is a simple and precise entry-level set for important aw value measurements in the food sector, particularly when larger volumes of samples are involved (%RH). It consists of an ms1 hand-held instrument with a large, special-purpose measurement sensor, and a range of accessories all housed in a robust plastic case. Space is available for further options, such as a power supply or interface/cable. The Set can be tested and recalibrated as required using individual Sensor Check humidity-standards.

Carrying case with:

- Measuring instrument ms1
 - Sensor HSM-3, 1m cable with 9-pin plug
 - 9V Battery
 - Plastic rack for the ms1
 - Sensor Check SC 75% rh
 - Adapter CH
 - Styrofoam box for calibration
 - User manual
 - Factory certificate of the 5-point calibration at 11-33-53-75-90%
- Weight: 2.300 kgs

[111 0511](#) ms1 Set M

ms1 Set AMS



ms1 Set AMS

The Set AMS is intended primarily for aw measurements in very large volumes of foodstuffs such as cereals, coffee beans or cheese, or pharmaceutical powders etc. (aw) A 13 mm SARK insertion probe is included for this purpose. The system is supplied in a robust plastic case including a range of accessories. Space is available for further options, such as a power supply or interface/cable. The Set can be tested and recalibrated as required using individual Sensor Check humidity standards.

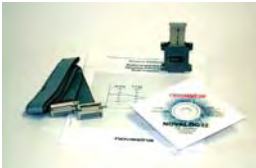
Carrying case with:

- Measurement instrument **ms1 aw**
 - Sensor enSARK-3, 2m cable
 - Sharp sensor tip
 - 9V battery
 - Plastic rack for the ms1
 - Sensor check SC 75% rh, with adapter ch
 - Polystyrene box for calibration
 - User manual
 - Factory certificate of the 5-point calibration at 11-33-53-75-90%
- Weight: 2.300 kgs

[111 6574](#) ms1 Set AMS



Accessories for ms1 sets



111 0826 Interface PC

Interface RS232

RS232 interface, 1m / 1,8m long cable, CD with software NOVALOG32 for Win 9x/2000/NT/XP.

Interface Set comprising:

- 1m cable with D-Sub 25/25-pin
 - 1,8m cable with D-Sub 9F/25M pin
 - RS-232 Interface
 - CD with NOVALOG32 software for Windows systems
 - User manual
- Weight: 450g



111 0562 Interface Seiko

RS232 interface for Seiko printer

RS-232 interface, 1m long cable to connect a Seiko **DPU 411** thermal printer. This makes it possible to control the printer using the printer parameters defined in the **ms1** menu.

-> **The printer must be obtained locally**

Printer-Interface-Set Seiko:

Printer cable : Flat cable

- 1m long printer cable with D-Sub 25/25-pin
 - RS 232 interface
 - Seiko adapter box
- Weight : 300g



111 6256 Adapter 25F/9M

D-Sub adapter 25F/9M

Additional adapter for the RS232 Interface for Seiko printer (111 0562), permitting connection to the more recent Seiko **DPU 414** printer.

Adapter Interface:

Dimensions : 60 x 40 x 20 mm
Adapter D-Sub 25F/9M
25-pin female con.
9 - pin male con.
Weight: 50g



111 0661 Interface Epson

RS232 interface for Epson printer

RS-232 interface, 1m long cable to connect an Epson or other compatible 9-pin needle printer. This makes it possible to control the printer using the printer parameters defined in the **ms1** menu.

-> **The printer must be obtained locally.**

Printer-Interface-Set Epson:

Printer cable: Flat cable

- 1m long printer cable with D-Sub 25/25-pin
 - RS 232 interface
 - Epson adapter
- Weight: 300g



- - - Example - Seiko Printer

Printer

A printer must be purchased locally.

> **Novasina does not supply printers.** <

Printers:

Portable printer for an easy direct connection to an ms1 hand-held instrument via a serial interface. A range of different printers can be supported by the ms1.



111 8426 Seiko Thermal paper

Thermal paper replacement rolls

for **Seiko DPU 411, 414** printers.

Attention: This paper must be stored in a dark and dry place. This is thermal transfer paper only intended for Seiko printers.

Printer type: **Seiko DPU 411, 414**

Note: Set of 5 rolls, each 25m long

Thermal paper replacement:

Set of 5 rolls, each 25 m long.
Thermal paper for Seiko printer Models DPU 411 and 414

Paper width 11cm
Weight: 850g each Set
Set of 5 rolls, each 25m long



111 0601 ePW sample dishes

ePW sample dishes

For an enBSK measurement chamber

Packet of 100 sample dishes for the sample sensor enBSK-3.

These are disposal, intended for a single use with any Novasina aw instrument

A package consists of:

100 sample dishes ePW

Material : Polypropylene

Dimensions : 40mm diameter
x 12mm deep

Weight : 440 g
for set aw



111 0790 SI Set BS

SI, sorption isotherm set

for the BSK Sensor

This accessory, together with the Novasina humidity standards SAL-T, makes it possible to easily determine points of a sorption isotherm. (A precision balance and an oven are also required.)

Prerequisite: the laboratory room temperature must be kept absolutely constant.

SI – Set BS complete with:

- 1 SI-ring BS
- 1 substance basket
- 1 weighing glass
- 1 pair of tongs

For precise determination of a sorption isotherm, the AW SPRINT or AW CENTER with temperature control should be used.

Weight: 280 g
for set aw



111 1218 Tweezers for CK cells

Special tweezers

To simplify the exchange of a CK measuring cell in an enBSK measuring head.

Special-tweezer:

Material : stainless steel
For changing the humidity cell in an enBSK head

Weight: 20 g
for set aw



- 111 0930** -> SAL-T 11% rh
- 111 0932** -> SAL-T 33% rh
- 111 0934** -> SAL-T 53% rh
- 111 0936** -> SAL-T 75% 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	
52,9 %	colour	green	(DG see general terms of sales)
75,3 %	colour	purple	
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
55.9	.....	51.4% rh
75.6	.....	75.1% rh
90.9	.....	89.9% rh

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

Weight: 50 g a piece
for set aw



- 111 1056** -> SAL-T/C 11% rh
- 111 1057** -> SAL-T/C 33% rh
- 111 1060** -> SAL-T/C 53% rh
- 111 1063** -> SAL-T/C 75% rh
- 111 1065** -> SAL-T/C 90% rh

SAL-T/C salt tablets EU

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	
52,9 %	colour	green	(DG see general terms of sales)
75,3 %	colour	purple	
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: 50 g a piece
for set aw



111 0695 Case with 5 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	
52,9 %	colour	green	(DG see general terms of sales)
75,3 %	colour	violet	
90,1 %	colour	white	(DG see general terms of sales)

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
55.9 51.4% rh
75.6 75.1% rh
90.9 89.9% rh
The precision corresponds to the Greenspan Report 1977 typically +/- 0.3 % rh Weight: 670 g
for set aw



Prices see on the pricelist

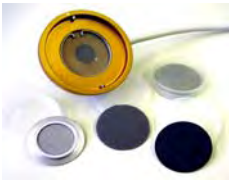
Certification of an aw instrument in an accredited European laboratory

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

Internationally accredited laboratory



Certified instruments can be also supplied



- 111 1001** -> eVC-21
- 111 1003** -> eVC-26
- 111 7212** -> Redox
- 111 0995** -> eVALC
- 111 0997** -> eVMT-2
- 111 0999** -> eVMS-2

Cell protection filters

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

-> Please consult the appropriate datasheets

Filters for enBSK head:

- 111 1001** -> eVC-21 (10 pieces)
- 111 1003** -> eVC-26 (10 pieces)
- 111 7212** -> Redox (1 piece)
- 111 0995** -> eVALC (2 pieces)
- 111 0997** -> eVMT-2 (5 pieces)
- 111 0999** -> eVMS-2 (5 pieces)

Weight: 30 g
for set aw

Spare parts for ms1 sets



111 1083 9V battery

9V-battery

Alkali-manganese battery (not rechargeable)

This battery permits up to 25 hours of continuous operation. If a rechargeable battery is used, an external charger is required. -> The ms1 cannot perform this function.

9V Battery for the ms1:

Alkali cell battery :
Battery 9V DC, 180mAh
A standard battery, available in most electronic shops
Max. storage time : 2 years
Weight: 50 g
for all sets



111 1564 230V power supply
111 1406 115V power supply

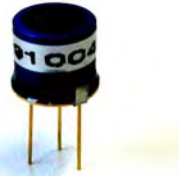
230V or 115V power supply

The power supply is recommended when the **ms1** is used for a long period in one place, or to preserve battery power when the RS 232 interface is extensively used.

The ms1 does not recharge batteries. If rechargeable batteries are used, an external charger is needed.

Power supply:

230V AC +/- 10% / 50-60Hz
115V AC +/- 5% / 50-60Hz
Output : 9 V DC / 16 mA
Power requirement: 0.4 VA
Plug : 4 mm diameter coax
Weight: 250 g
for all sets



[111 1013](#) CK-3 cell

CK-3 measurement cell

For the HSM-3, enSARK-3, enCSK-3, enBSK-3 Humidity measurement cell with neither temperature measurement nor integrated saturation protection. The aluminium (SARK) or sinter (CSK) filter should be removed and the measurement cell replaced by hand. In no circumstances should, the filter surface on the top of the cell be touched by hand or a hard object.

-> Humidity measurement cell. The ms1 requires recalibration after cell replacement.

Humidity-Measurement cell CK-3:

Humidity measurement
Range : 6.....95 % rh
Attention : No saturation protection!
Repeatability: 0.3 % rh
Precision : +/- 1.0 % rh
(when calibrated on instrument on all 5-Points from 11 to 90%rh)
Weight: 1 g
for set aw



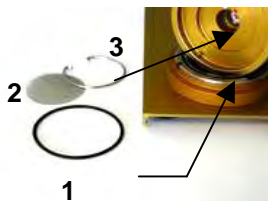
[110 6821](#) enBSK-3

enBSK-3 sample sensor

Ideal for small sample volumes. For use with the measuring plate PP and the disposable sample dishes ePW. The sensor consists of the head BSK, a humidity measurement cell CK-3, the NTC-temperature sensor and a metal mesh protection filter.

Sample sensor enBSK-3:

Material : Aluminum anodised
Weight : 240g
Connector : 9 pins
for set aw



[111 1373](#) O-Ring : 1
[111 2934](#) Braided filter : 2
[111 0111](#) Tension ring : 3

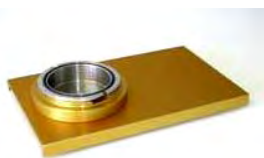
Replacement parts for "head BSK"

- 1 O-ring seal for the measurement chamber.
Recommendation: The O-ring should be periodically exchanged and lubricated with silicon grease.
- 2 Metal mesh filter for protection from particles.
- 3 Tension ring for clamping the filter(s).

Spare parts to enBSK:

- O-ring seal
- Mesh filter
- Tension ring

Weight: 1 1 g
2 30 g
3 10 g
for set aw



[111 0770](#) Measurement plate

Sample measuring plate PP

for enBSK-3

The product sample is placed in a sample dish ePW (111 0601), which is inserted in the sample measurement plate.

Measurement plate PP:

for enBSK sensor head
Dimensionens : 15 x 9 mm
Material : Anodised aluminium
Weight : 200 g
for set aw



[110 6515](#) Tweezers for ePW

Tweezers

for ePW

To ease the removal of the sample dish ePW from the sample measurement plate PP.

Tweezers:

Material : stainless steel
Weight: 20 g
for set aw

Options for ms1 sets



[111 6716](#) enSARK

enSARK-3 sensor

with 2m connection cable and 9 pin plug

A 13 mm diameter Duroplast rod with CK-3 humidity measurement cell, and NTC temperature sensor. Designed for measurements in, for example, material in granulated form in sacks, tanks and silos.

See also Set AM, Set AMS:



Example: humidity measurements of granulates, sawdust, or tobacco

Weight: 210 g
for set AM/AMS



110 7345 Adapter CH

SAL-SC Sensor check adapter CH
for sensors with diameter 13 mm

This adapter is needed for calibration of a system with sensor diameter 13 mm. It ensures an airtight fixation of a SAL-SC check to the sensor top (measurement cell area). It reduces the diameter of 20 mm to 13 mm and ensures an airtight seal.

-> The adapter should be first mounted on the sensor top and then putted the SAL-SC check on it. Both seals should be carefully checked, leaks will bias the calibration.

CH adapter to SAL-SC salts for sensors with diameter 13 mm:

Dimensions : 30 x 13 mm
Material : Polycarbonate, rubber

Weight : 5 g
for set AM/AMS/M



111 6497 enSARK tip

Replacement tip for Sensor enSARK-3

A hard sharp POM tip to ease the insertion of SARK sensors into materials such as eg. in granulates, grains, paper etc.

-> Cannot be used with older SARK sensors

Sharp tip for SARK sensor:



Material : POM black
Weight: 3 g
for set AM/AMS



with CK-3 measurement cell
252 4708 HSM-3 – 1m cable

HSM-3 sensor incl. sample box
Complete with the sample box large

Modern and light polycarbonate plastic sensor with a shaft diameter of 13mm. Inclusive exchangeable resistive electrolyte measuring cell CK-3. Aluminium protective cap with a shaft diameter of 13mm and braided filter of rust-resistant steel. With a 350 ml one way plastic box for bigger sample volumes.

Accessories: 1 sample box

-> For SC calibration kit please use the Sensor Check adapter Nr. 1107345 (tightness)

HSM-3 Sensor incl. Box:

Dimensions Sensor: 160 x 13 mm
Dimensions Box 112 x 76 mm
Weight : approx. 200g
Measurement : AW and Temp
Connector : 9 –pin plug for the ms1
Power : passive
Outputs : Novasina specific
Protection :braided filter without membrane

for set M



252 5413 HSM-113–9-pin,1m cable

HSM-113 sensor

A small, and light water activity sensor in a polycarbonate plastic housing with 100mm tube length for large sample box. Shaft diameter of 13 mm. Without measurement cell and filter. Only for ms1 set M available.

-> Please use the Sensor Check Adapter Nr. 1107345 for SC calibration to ensure the correct sealing.

HSM Sensor including plug:

Dimensions : 160 x 13 mm
Shaft length : 100 mm
Weight : 100 g
Measurement : AW and Temp
Connector : 9 –pin plug for the aw-Lab Set F
Power : passive
Outputs : Novasina specific

for set M



111 5343 Box Mounting Kit

Box mounting kit

Box mounting flange for HSM sensors. For easy, sealed mounting through probe boxes. The flange can be fixed by 3 screws The sensor can be removed at any time for recalibration.

-> Clamping range: 10 14 mm

Duct mounting kit for HS:

Flange dimensions : 60 x 20 mm
Weight : 30 g
Clamping range : 10...14 mm

Available for larger sample box installation.

for set M



111 6330 Active charcoal filter

Filter protective cap with active charcoal
for the HSM sensor

Aluminium filter protective cap for the HSM sensor. Incorporates a stainless steel metal web and an active charcoal insert. Provides optimal protection of the measurement cell from corrosive gases and industrial pollutants.

-> The filter has a 12 um mesh size

Active charcoal filter for HSM:

Filter dimensions : 28 x 13 mm
Weight : 15 g
Effect : mechanical protection
chemical protection
Nitrous oxide, oil-smoke, fine dust
amine, ethylene Particle
size over : 12 um

for set M



[111 6329](#) Metal webfilter

Metal-web filter for the HSM sensor

The standard filter protective cap for the HSM sensor. Made of aluminium woven material for highly demanding industrial applications, Provides good protection against dirt such as dust or larger particles in an industrial environment, but no protection against water spray. -> The HSM is delivered with this filter

Metal web filter for the HSM:

Filter dimensions: 25 x 13 mm
Weight : 10g
Effectiveness : Mech. protection
no chemical protection
Particle size above: 25 um
Supplied with the HSM sensor
for set M



[110 7345](#) Adapter ch

Sensor check adapter ch for any 13mm sensor

This adapter is needed for calibration an instrument. It ensures an airtight connection of a Sensor Check to the sensor tube of the top of the instrument. It reduces the diameter of 20 mm down to 13 mm and ensures an airtight seal.

-> The adaptor should first be attached to the sensor Both seals should be carefully checked, leaks will bias the calibration.

Adapter CH for sensor checks „SC“ auf HSM Sensoren:

Dimensions : 30 x 13 mm
Weight : 5 g
Material : Thermo plastic
with O- ring
for set AM/AMS/M



[252 4710](#) sample box large

Sample box large HSM-3/7

New large sample box for **HSM-3 box sensor**. (without screw connection)
These are disposals, intended for a single use with Novasina aw-Lab or ms-1 instrument with HSM sensor.

A large sample box contains:

1 new sample box
Material : Polypropylene
Dimensions: 112 x diam. 76 mm
Weight : 50 g
for set M



- [111 0885](#) -> SAL-SC 11
- [111 0855](#) -> SAL-SC 33
- [111 0857](#) -> SAL-SC 53
- [111 0859](#) -> SAL-SC 75
- [111 0896](#) -> SAL-SC 90

Sensor-Checks SAL-SC (rh standards)

Humidity standards based on saturated salt solutions in plastic cylinders with moisture permeable membranes. Each salt is delivered in a well-sealed box. Sensor Checks SAL-SC are obtainable for the following values (at 25°C) :

- 11.3 % rh colour white
- 32.8 % rh colour blue
- 52.9 % rh colour green (DG see general terms of sales)
- 75.3 % rh colour purple
- 90.1 % rh 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
55.9 51.4% rh
75.6 75.1% rh
90.9 89.9% rh
The precision corresponds to the Greenspan Report 1977 typically +/- 0.3 % rh
Weight : 90 g
for set AMS/M



- [111 1044](#) -> SAL-SC 11 C
- [111 1037](#) -> SAL-SC 33 C
- [111 1040](#) -> SAL-SC 53 C
- [111 1035](#) -> SAL-SC 75 C
- [111 1032](#) -> SAL-SC 90 C

Sensor-Checks SAL-SC EU with European certificate

Humidity standards based on saturated salt solutions in plastic cylinders with moisture permeable membranes. Each salt is delivered in a well-sealed box. SAL-SC are obtainable for the following values (at 25°C)

- 11.3 % rh colour white
- 32.8 % rh colour blue
- 52.9 % rh colour green (DG see general terms of sales)
- 75.3 % rh colour purple
- 90.1 % rh colour white (DG see general terms of sales)

Internationally accredited laboratory



All Novasina humidity standards can also be supplied with an internationally recognised certificate from an accredited European laboratory (UKAS England).
Weight : 90 g



111 7847 Sensor-check set

Set with 5 Sensor-Checks SAL-SC

Humidity standards based on saturated salt solutions in plastic cylinders with moisture permeable membranes. Each salt is delivered in a well-sealed box. SAL-SC are obtainable for the following values (at 25°C):

- 11.3 % rh colour white
- 32.8 % rh colour blue
- 52.9 % rh colour green (DG see general terms of sales)
- 75.3 % rh colour purple
- 90.1 % rh colour white (DG see general terms of sales)

Case with all 5 Sensor Checks from 11 to 90%rh:

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

- 11.3 11.3% rh
- 33.3 32.4% rh
- 55.9 51.4% rh
- 75.6 75.1% rh
- 90.9 89.9% rh

The precision corresponds to the Greenspan Report 1977 typically +/- 0.3 % rh Weight : 900 g



111 3542 Extension cable

Extension cable for ms-1

1.5m long cable with 9-pin connectors for remote measurements with the ms1.

-> Use of the extension cable does not require recalibration of the instrument

Extension cable to ms1:

Extension cable: 1.5m
Weight: 120g
Connector: 9-pin special connectors for ms1 and sensor.



111 0978 enCK-3

enCK-3 sensor

Sensor with resistive electrolyte humidity measurement cell CK-3 and integrated temperature sensor. Standard humidity sensor for the ms1.

A precise humidity and temperature sensor for 6..95 % rh (98% non-condensing) without internal saturation protection. The integrated, precise NTC temperature probe has a range of -20 to +80 °C. The humidity sensor is protected by an integrated chemical filter.

Information: recalibration of the ms1 at a minimum of two points is required when a sensor is replaced. High precision requires a 5-point calibration.

Sensor enCK-3:

Dimensions : 58 x 22mm
Weight : 10 g

Humidity measurement:
Range: 6.....95 % rh

Attention: No saturation protection!
Repeatability: 0.3 % rh
Precision: +/- 1.0 % rh
when calibrated on instrument on all 5-Points from 11 to 90%rh.

Temperature Measurement:
Range temp : -20...80°C
Repeatability : +/- 0.1° C
Precision : +/- 0.3° C



AW LAB Set F



A professional laboratory instrument for precision measurements of relative equilibrium humidity or aw value in foodstuffs, pharmaceutical products and other materials. The laboratory temperature should be maintained at a constant value, since these properties are a function of temperature for many such products. This inexpensive instrument makes it possible to check the relative equilibrium humidity in a wide range of materials, as well as aw values in research, production, packing, foodstuff storage, as well as cosmetics, and the very dry products of the pharmaceutical industry. The aw value or relative equilibrium humidity can be displayed as required.

- Range** : 0.03 ... 1.00aw / 3 ... 100% rh
operating temperature range 0...50°C
- Sensor** : Resistive electrolyte measurement cell, sensor HSM-7
- Precision** : +/- 0.003aw / 0.3% rh, 0.3°C
when fully calibrated
- Repeatability** : +/- 0.002aw/ 0.2%rh
- Communication:** RS232 interface, PC-Software,
Analog output 0-10V



AW LAB Set F

Precise, fast, flexible

A well-proven laboratory precision instrument for reproducible, precise aw measurements for all types of foodstuffs, cosmetics, dry pharmaceutical substances, as well as a wide variety of other products such as tobacco, building materials, plastics, textiles.

The instrument and its sensor are robust and have excellent long-term stability. The Novasina electrolyte sensor delivers essentially hysteresis-free measurements.

The large, clear illuminated LC display is very easy to read.

An RS 232 interface is available for connecting a printer or PC. PC-Software for Win9x/2000/NT/XP is provided with the instrument. A recorder can be connected to the 0 to 10 volt analog output.

Examples of aw measurements:

- All forms of pastry and baked goods
- Potato chips, tea leaves
- Cheese, meat
- Fruit concentrates
- Dried foodstuffs, e.g. mushrooms
- Cosmetics
- Medications
- Technical products
- Textiles

Note: *For many products, a constant, sometimes legally prescribed, temperature is required. The most appropriate instrument for such applications is the **LabMaster-aw**.*

Instrument AW LAB Set F:

- Surface area : AW LAB 12 x 25 cm
Measurement box
Dia. 8cm x 11cm
- Weight : 2 kg
- Power : 115V, oder 230V, 50/60Hz

Humidity sensor:

- Electrolyte measurement cell
- Range : 0.03...1.00aw
operating temperature range 0...50°C
- Repeatability : +/- 0.002aw
- Precision : +/- 0.003aw
when fully calibrated
- Resolution : 0.001aw

Temperature sensor:

- Precise NTC-resistance
- Range : -20...80°C
- Repeatability : +/- 0.1° C
- Precision : +/- 0.3° C
- Resolution : 0.1°C

Humidity standards

Salt tablets SAL-SC:

Saturated pure salt solutions based on national standards are recommended:

see catalogue accessories



AW LAB Set H



A professional laboratory instrument for precision measurements of aw values (water activity) in foodstuffs and pharmaceutical products. The laboratory temperature should be maintained at a constant value, since these properties are a function of temperature for many such products.

This laboratory instrument makes it possible to check aw values in the research and production of foodstuffs, as well as cosmetics, and the very dry products of the pharmaceutical industry. The aw value or % relative equilibrium humidity can be displayed as required.

- Range** : 0.03 ... 1.00aw / 3 ... 100%rh
operating temperature range 0...50°C
- Sensor** : Resistive electrolyte measurement cell,
Sensor enBSK-7
- Accuracy** : +/- 0.003aw / 0.3%rh, 0.3°C
when fully calibrated
- Repeatability** : +/- 0.002aw / 0.2%rh
- Communication** : RS232 interface, PC-Software,
Analog output 0-10V



AW LAB Set H

Precise, fast, flexible

A well-proven laboratory precision instrument for reproducible, precise aw measurements for all types of foodstuffs, cosmetics, as well as dry pharmaceutical substances.

The instrument and its sensor are robust and have excellent long-term stability. The Novasina electrolyte cell delivers essentially hysteresis-free measurements.

The large, clear illuminated LC display is very easy to read.

An RS 232 interface is available for connecting a printer or PC. PC-Software for Win9x/2000/NT/XP is provided with the instrument. A recorder can be connected to the 0...10 volt analog output.

Examples of aw measurements:

- All forms of pastry and baked goods
- Meat and sausages
- Cheese
- Fruit concentrates
- Dried foodstuffs
- Cosmetics
- Medications

Note: *For many products, a constant, sometimes legally prescribed, temperature is required. The most appropriate instrument for such applications is the **LabMaster-aw**.*

Instrument AW LAB Set H:

Surface area : AW LAB 12 x 25 cm
Measurement plate PP 10 x 16 cm
Weight : 2 kg
Power : 115V, oder 230V, 50/60Hz

Humidity sensor:

Resistive electrolyte measurement cell
Range : 0.03...1.00aw
operating temperature range 0...50°C
Repeatability : +/- 0.002aw
Precision : +/- 0.003aw
when fully calibrated
Resolution : 0.001aw

Temperature sensor:

Precise NTC resistance
Range : -20...80°C
Repeatability : +/- 0.1° C
Precision : +/- 0.3° C
Resolution : 0.1°C

Humidity standards

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

see catalogue accessories



Laboratory Instrument AW LAB Set F



[111 4577](#) AW LAB Set F 230V

[111 4578](#) AW LAB Set F 115V

AW LAB Set F

A robust laboratory instrument for precisely determining the water activity in large volume samples. It incorporates highly sensitive humidity and temperature sensors, a 0...10 volt scaleable analog output, and an RS232 interface for connection of a PC or printer. It is delivered with a CD including the special software *Novalog 32* for Win9X/2000/NT/XP.

The instrument is ready to use as delivered, having been calibrated at 5 points in the factory.

No power supply cable is provided. The appropriate cable (for Switzerland, Europe, USA) should be ordered separately.

Instrument AW LAB Set F:

- With sensor HSM-7, cable length : 2m
- Humidity standards SC: 3 Sensor Checks in a case 11, 33, 75% rh
- Adapter ch
- PC-Software Novalog32 for Win9x/2000/NT/XP
- User manual
- Factory certificate of the 5-point calibration at 11-33-53-75-90%

Weight: 1.800kgs

Laboratory Instrument AW LAB Set H



[111 4312](#) AW LAB Set H 230V

[111 4313](#) AW LAB Set H 115V

AW LAB Set H

A robust laboratory instrument for precisely determining the water activity in product samples. It incorporates highly sensitive humidity and temperature sensors, a 0...10 volt scaleable analog output, and an RS232 interface for connection of a PC or printer. It is delivered with a CD including the special software *Novalog32* for Win9X/2000/NT/XP. The instrument is ready to use as delivered, having been calibrated at 5 points in the factory.

No power supply cable is provided. The appropriate cable (for Switzerland, Europe, USA) should be ordered separately.

Instrument AW LAB Set H:

- With sensor enBSK-7, cable length: 2m
- SAL-T humidity standards: 3 SAL-T tablets in a case, 11, 33, 75% rh
- PC-Software Novalog32 for Win9x/2000/NT/XP
- User manual
- Factory certificate of the 5-point calibration at 11-33-53-75-90%

Weight: 1.900kgs



Accessories for AW LAB Set F / H



- 110 8568** Power cable CH : 1
110 8304 EU/Schuko : 2
111 1748 USA/Japan : 3

International power supply cables

For connecting an AW LAB

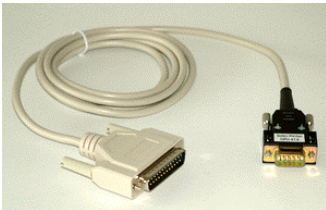
Configured with the standard instrument connector at one end and the locally required power plug at the other.

Please order with the country code and plug type

Power cable:

Cable length : 1.5 m
 Weight : 260g

For local power systems with appropriate plugs



111 7473 Adapter cable

Adapter cable "Seiko "

for Seiko DPU414 printer

For directly connecting a Seiko DPU 414 thermal printer. This makes it possible to control the printer using the printer parameters defined in the LAB menu.

Attention: The printer must be obtained locally

Adapter cable Seiko:

Type : Seiko
 Length : 1.8m
 Weight : 150g
 Connector : D-Sub 25M/9M



111 0958 Epson Adapter

Adapter "Epson" for Epson printer

For connecting an Epson or compatible 9-needle printer via a 1:1 PC standard cable. This makes it possible to control the printer using the printer parameters defined in the LAB menu.

Attention: The printer must be obtained locally

Epson Adapter:

Type : Epson
 Connector : D-Sub 25M/25M
 Weight : 40g



--- Example Seiko-Printer

Printer

A printer must be purchased locally.

> Novasina does not supply printers <

Printer :

Portable Seiko or Epson style printer can easily be connected to an AW LAB via appropriate cable/adapter box.



111 8426 Thermal paper Seiko

Thermal paper replacement rolls

for **Seiko DPU 411, 414** printers.

Attention: This paper must be stored in a dark and dry place. This is thermal transfer paper only intended for Seiko printers.

Printer type: Seiko DPU 411, 414

Note: Set of 5 rolls, each 25m long.

Thermal paper replacement:

Set of 5 rolls, each 25 m long.
 Thermal paper for Seiko printer
 Models DPU 411 and 414

Paper width 11cm
 Weight: 850g each Set
 Set of 5 rolls, each 25m long



[Prices 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.

Internationally accredited laboratory



Certified instruments can be supplied



Accessories for AW LAB Set F



with CK-7 measurement cell
252 4709 HSM-7 – 2m cable

HSM-7 sensor incl. sample box

Complete to the sample box large

Modern and light polycarbonate plastic sensor with a shaft diameter of 13mm. Inclusive exchangeable resistive electrolyte measuring cell CK-7. Aluminium protective cap with a shaft diameter of 13mm and braided filter of rust-resistant steel. With a 350 ml one way plastic box for bigger sample volumes.

Accessories: 1 sample box

-> For SC calibration kit please use the Sensor Check adapter Nr. 1107345 ! (tightness)

HSM-7 Sensor incl. Box:

Dimensions Sensor: 160 x 13 mm
Dimensions Box 112 x 76 mm
Weight : approx. 200g
Measurement : AW and Temp
Connector : 12 –pin plug for the aw-Lab Set F
Power : passive
Outputs : Novasina specific
Protection :braided filter without membrane



252 4711 HSM-127 –2m cable

HSM-127 sensor BOX

A small, and light water activity sensor in a polycarbonate plastic housing with 100mm tube length for large sample box. Shaft diameter of 13 mm. Without CK-7 measurement cell and filter. Only for aw-Lab Set F available.

-> Please use the Sensor Check Adapter Nr. 1107345 for SC calibration to ensure the correct sealing.

HSM Sensor including plug:

Dimensions : 160 x 13 mm
Shaft length : 100 mm
Weight : 100 g
Measurement : AW and Temp
Connector : 12 –pin plug for the aw-Lab Set F
Power : passive
Outputs : Novasina specific



111 5343 Box Mounting Kit

Box mounting kit

Duct mounting flange for HSM sensors. For easy, sealed mounting through probe boxes. The flange can be fixed by 3 screws The sensor can be removed at any time for recalibration.

-> Clamping range: 10 14 mm

Duct mounting kit for HS:

Flange dimensions : 60 x 20 mm
Weight : 30 g
Clamping range : 10...14 mm

Available for larger sample box installation.



111 6330 Active charcoal filter

Filter protective cap with active charcoal

for HSM sensor

Aluminium filter protective cap for the HSM sensor. Incorporates a stainless steel metal web and an active charcoal insert. Provides optimal protection of the measurement cell from corrosive gases and industrial pollutants.

-> The filter has a 12 um mesh size

Active charcoal filter for HSM:

Filter dimensions : 28 x 13 mm
Weight : 15 g
Effect : mechanical protection
chemical protection
Nitrous oxide, oil-smoke, fine dust
amine, ethylene Particle size over : 12 um



111 6329 Metal webfilter

Metal-web filter *for the HSM sensor*

The standard filter protective cap for the HSM sensor. Made of aluminium woven material for highly demanding industrial applications, Provides good protection against dirt such as dust or larger particles in an industrial environment, but no protection against water spray.

-> The filter has a mesh size of 25 um.

-> The HSM is delivered with this filter

Metal web filter for the HSM:

Filter dimensions: 25 x 13 mm
Weight : 10g
Effectiveness : Mechanical protection
no chemical protection

Particle size above: 25 um

Supplied with the HSM sensor



110 7345 Adapter ch

Sensor check adapter ch for any 13mm sensor

This adapter is needed for calibration an instrument. It ensures an airtight connection of a Sensor Check to the sensor tube of the top of the instrument. It reduces the diameter of 20 mm down to 13 mm and ensures an airtight seal.

-> The adaptor should first be attached to the sensor Both seals should be carefully checked, leaks will bias the calibration.

Adapter CH for sensor checks „SC“ auf HSM Sensoren:

Dimensions : 30 x 13 mm

Weight : 5 g

Material : Thermo plastic with O- ring



252 4710 sample Box large

Sample box large HSM-3/7 for Set-F

New large sample Box for **HSM-7 box sensor**.

These are disposals, intended for a single use with Novasina aw-Lab or ms-1 instrument with HSM sensor.

A large sample box contains:

1 new sample box

Material : Polypropylene

Dimensions: 112 x diam. 76mm

Weight : 50 g



- 111 0885** -> SAL-SC 11
- 111 0855** -> SAL-SC 33
- 111 0857** -> SAL-SC 53
- 111 0859** -> SAL-SC 75
- 111 0896** -> SAL-SC 90

Sensor-Checks SAL-SC (rh standards)

Humidity standards based on saturated salt solutions in plastic cylinders with moisture permeable membranes. Each salt is delivered in a well-sealed box. SAL-SC are obtainable for the following values (at 25°C):

- 11.3 % rh colour white
- 32.8 % rh colour blue
- 52.9 % rh colour green (DG see general terms of sales)
- 75.3 % rh colour purple
- 90.1 % rh 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
- 55.9 51.4% rh
- 75.6 75.1% rh
- 90.9 89.9% rh

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

Weight : 90 g



- 111 1044** -> SAL-SC 11 C
- 111 1037** -> SAL-SC 33 C
- 111 1040** -> SAL-SC 53 C
- 111 1035** -> SAL-SC 75 C
- 111 1032** -> SAL-SC 90 C

Sensor-Checks SAL-SC EU with European certificate

Humidity standards based on saturated salt solutions in plastic cylinders with moisture permeable membranes. Each salt is delivered in a well-sealed box. SAL-SC are obtainable for the following values (at 25°C):

- 11.3 % rh colour white
- 32.8 % rh colour blue
- 52.9 % rh colour green (DG see general terms of sales)
- 75.3 % rh colour purple
- 90.1 % rh colour white (DG see general terms of sales)

Internationally accredited laboratory



All Novasina humidity standards can also be supplied with an internationally recognised certificate from an accredited European laboratory (UKAS England).

Weight : 90 g



111 7847 Sensor-check set

Set with 5 Sensor-Checks SAL-SC

Humidity standards based on saturated salt solutions in plastic cylinders with moisture permeable membranes. Each salt is delivered in a well-sealed box. SAL-SC are obtainable for the following values (at 25°C):

- 11.3 % rh colour white
- 32.8 % rh colour blue
- 52.9 % rh colour green (DG see general terms of sales)
- 75.3 % rh colour purple
- 90.1 % rh colour white (DG see general terms of sales)

Case with all 5 Sensor Checks from 11 to 90%rh:

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

- 11.3 11.3% rh
- 33.3 32.4% rh
- 55.9 51.4% rh
- 75.6 75.1% rh
- 90.9 89.9% rh

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

Weight : 900 g



Accessories for AW LAB Set H



111 0601 ePW sample dishes

ePW sample dishes

For all enBSK measurement chambers

Box with 100 sample dishes for the sample sensor **enBSK-7**.

These are disposal, intended for a single use with any Novasina aw instrument with head BSK.

A box contains:

100 sample dishes ePW

Material : Polypropylene

Dimensions: 40mm dia. x 12mm

Weight : 440 g



111 0790 SI Set BS

SI sorption isotherm set for the BSK Sensor

This accessory, together with the Novasina humidity standards SAL-T, makes it possible to easily determine several points of a sorption isotherm. (A precision balance and an oven are also required.)

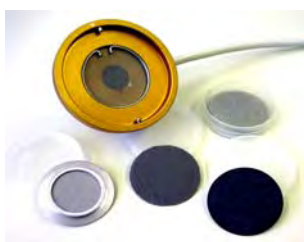
Prerequisite: the laboratory room temperature must be kept absolutely constant.

SI – Set BS complete with:

- 1 SI-ring BS
- 1 substance basket
- 1 weighing glass
- 1 pair of tongs

For recording of a sorption isotherm, the AW SPRINT or AW CENTER with temperature control should be used.

Weight: 280 g



- 111 1001** -> eVC-21
- 111 1003** -> eVC-26
- 111 7212** -> Redox
- 111 0995** -> eVALC
- 111 0997** -> eVMT-2
- 111 0999** -> eVMS-2

Cell protection filters

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

-> Please consult the appropriate datasheets

Filters for enBSK head:

- eVC-21 (10 pcs.)
- eVC-26 (10 pcs.)
- Redox (1 piece)
- eVALC (2 pcs.)
- eVMT-2 (5 pcs.)
- eVMS-2 (5 pcs.)

Weight: 30 g



110 6515 Tweezers for ePW

Tweezers

for ePW

To ease the removal of the sample dish ePW from the sample plate PP.

Tweezers:

Material : stainless steel
Weight : 20 g



111 1218 Tweezers for CK5-7

Special tweezers

To simplify the exchange of a CK measuring cell in an **enBSK** measuring head.

Special-tweezers:

Material : stainless steel
For exchanging the humidity cell in an enBSK head
Weight: 20 g



- [111 6453](#) -> SAL-T 6% rh
- [111 0930](#) -> SAL-T 11% rh
- [111 0932](#) -> SAL-T 33% rh
- [111 0934](#) -> SAL-T 53% rh
- [111 0936](#) -> SAL-T 75% rh
- [111 0938](#) -> SAL-T 90% rh
- [111 0940](#) -> SAL-T 98% 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):

- 6,4 % colour white
- 11,3 % colour white
- 32.8 % colour blue
- 52.9 % colour green (DG see general terms of sales)
- 75.3 % colour purple
- 90.1 % colour white (DG see general terms of sales)
- 98.0 % colour orange (DG see general terms of sales)

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

- 6.9 6.2% rh
- 11.3 11.3% rh
- 33.3 32.4% rh
- 55.9 51.4% rh
- 75.6 75.1% rh
- 90.9 89.9% rh
- 98.5.....98.0% rh

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

Weight: 50 g a piece



- [111 7000](#) -> SAL-T/C 6% rh
- [111 1056](#) -> SAL-T/C 11% rh
- [111 1057](#) -> SAL-T/C 33% rh
- [111 1060](#) -> SAL-T/C 53% rh
- [111 1063](#) -> SAL-T/C 75% rh
- [111 1065](#) -> SAL-T/C 90% rh
- [111 1068](#) -> SAL-T/C 98% rh

SAL-T/C salt tablets EU 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
- 11,3 % colour white
- 32.8 % colour blue
- 52.9 % colour green (DG see general terms of sales)
- 75.3 % colour purple
- 90.1 % colour white (DG see general terms of sales)
- 98.0 % colour orange (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: 50 g a piece



[111 0695](#) Set of 5 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
- 52.9 % colour green (DG see general terms of sales)
- 75.3 % colour violet
- 90.1 % colour white (DG see general terms of sales)

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
- 55.9 51.4% rh
- 75.6 75.1% rh
- 90.9 89.9% rh

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

Weight: 670 g



[111 0435](#) Set of 6 SAL-T

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
- 52.9 % colour green (DG see general terms of sales)
- 75.3 % colour purple
- 90.1 % colour white (DG see general terms of sales)
- 98.0 % colour orange (DG see general terms of sales)

Case with 6 salt tablets

SAL-T for 11 ... 98%rh.

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

- 11.3 11.3% rh
- 33.3 32.4% rh
- 55.9 51.4% rh
- 75.6 75.1% rh
- 90.9 89.9% rh
- 98.5.....98.0% rh

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

Weight: 710 g



Replacement parts for AW LAB Set F, H



111 8654 CK-7 measuring cell

CK-7 measuring cell for Sets F & H

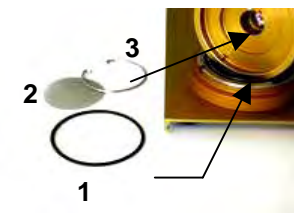
For sensors enCSK and enBSK

Humidity measurement cell without integrated temperature sensor, but with active saturation protection. The measurement cell can be exchanged by hand with the help of tweezers. The filter surface on the top of the cell should not be touched with the hand or hard objects.

Attention: *The instrument requires recalibration when a cell is exchanged.*

Humidity cell CK-7:

Range : 0.03aw...1.00aw
corresp. to 3...100% rh
operating temp. range: 0...50°C
Temperature: cannot be measured
Repeatability: +/- 0.3 % rh
Accuracy : +/- 2.0 % rh
(without calibration)
Accuracy : +/- 0.003aw
when instrument fully calibrated
Weight: 1 g



111 1373 O-Ring : 1
111 2934 Metal mesh filter: 2
111 0111 Tension ring : 3

Replacement parts for “head BSK”

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

Replacement parts for enBSK:

- O-ring seal Weight: 1 g
- Mesh filter Weight: 30 g
- Tension ring Weight: 10 g



111 0774 Measurement head BSK

BSK Measurement head

For the AW LAB Set H

- with 2.0m cable, 12-pin connector,
- **without** Humidity measurement cell CK-7
- **without** metal mesh filter.

Measurement head BSK

Sensor head consisting of:

- Aluminium head with bayonet fastening
 - for CK-7 Measurement cell
 - 2.0m cable for AW LAB
 - 12 pin connector with screw lock
- Weight: 240 g



111 0770 Measurement plate PP

Sample measuring plate PP

for enBSK-7

The product sample is placed in a sample dish ePW (111 0601), which is inserted in the sample plate PP.

Measurement plate PP:

for enBSK sensor head

Dimensions : 15 x 9 mm
Material : Anodised aluminum
Weight : 200 g



LabMASTER-aw



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 world.

Measuring range aw	:	0.03 ... 1.00aw
Measurement chamber temperature	:	selectable 0 ... 50°C, +/- 0.2K
Sensor type	:	electrolytic resistive measurement cell CM-2
Accuracy	:	+/- 0.003aw / 0.2°C at 25°C when the system is calibrated at min. 6 points
		Repeatability +/- 0.002aw
Communication	:	RS-232 interface, PC software "Novalog MC"



LabMASTER-aw

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

Well-proven laboratory instrument for reproducible, precise aw 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 channel). 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 is included in the delivery (except for the "BASIC" version). A recorder can be connected to the 0...10 volt analogue output.

Examples of aw measurement samples:

- All forms of pastry and baked goods
- Meat and sausages
- Cheese
- Fruit concentrates
- Dried foodstuffs
- Cosmetics
- Pharmaceuticals

LabMASTER-aw instrument:

Surface area: width 26, depth 44 cm
Weight : 9.8 kg
Mains supply: 90V...260V, 50/60Hz,
wide range power supply

Humidity sensor:

Electrolyte measurement cell CM-2
Range : 0.03...1.00aw
in the range of 0...50°C.
Repeatability : +/- 0.002aw
Accuracy : +/- 0.003aw at 25°C
when fully calibrated
Resolution : 0.001aw / 0.1°C

Temperature sensor:

Precise NTC resistor
Range : -20...80°C
Repeatability : +/- 0.1°C
Accuracy : +/- 0.3°C
Resolution : 0.1°C

Humidity standards

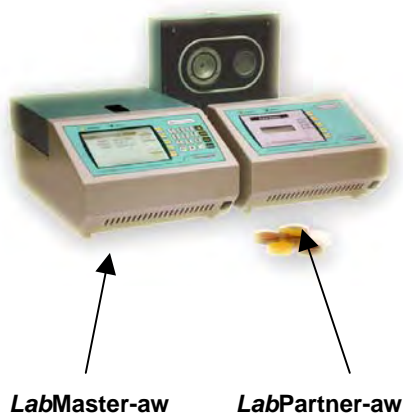
Salt tablets SAL-T:

Saturated pure salt solutions based on national standards are recommended:

see catalogue accessories



Multi Channel System 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:

1 LabMASTER-aw "ADVANCED" runs from **1 to 9 LabPARTNER-aw** units.

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.

Measuring range aw	: 0.03 ... 1.00 aw
Measurement chamber temperature	: selectable 0 ... 50°C +/- 0.2K
Sensor type	: electrolyte resistive measurement cell CM-2
Accuracy	: +/- 0.003aw, 0.2°C at 2°C when the system is calibrated at min. 6 points
Repeatability	: +/- 0.002aw
Communication per channel	: RS-232 or USB interface, PC-Software Novalog MC for single channel monitoring



Multi Channel System (LabPartner-aw)

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 stability 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.

Examples of aw measurement samples:

- All forms of pastry and baked goods
- Meat and sausages, cheese
- Dried foodstuff, fruit concentrates
- Cosmetics, natural healing products
- Pharmaceuticals (powders, tablets, ointments)

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
Range : 0.03...1.00aw
in the range of
0...50°C.
Repeatability : +/- 0.002aw
Accuracy : +/- 0.003aw at 25°C
when fully calibrated
Resolution : 0.001aw / 0.1°C

Temperature sensor:

Precise NTC resistor
Range : -20...80°C
Repeatability : +/- 0.1° C
Accuracy : +/- 0.3° C
Resolution : 0.1°C

Humidity standards

Salt tablets SAL-T:

Saturated pure salt solutions based on national standards are recommended:

see catalogue accessories



LabMASTER-aw



111 9971 LabMASTER-aw
"BASIC"

LabMASTER-aw "BASIC"

Robust laboratory precision measurement instrument with temperature controlled measurement chamber. With integrated pre-conditioning 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 power cable included. Please order it separately.

Instrument:

- 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

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



standard

111 9972 LabMASTER-aw
"STANDARD"

LabMASTER-aw "STANDARD"

Robust laboratory precision measurement instrument with temperature controlled measurement chamber. With integrated pre-conditioning 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 power cable included. Please order it separately.

Instrument:

- 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
- Operating instructions

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

Multi Channel System



111 9973 LabMASTER-aw
"ADVANCED"

LabMASTER-aw "ADVANCED"

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

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

Instrument:

- 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 and cable
- NovalogMC PC visual. software for Win9x/2000/NT/XP
- Operating instructions

- certificate of the 6 point factory calibration 11-33-58-75-84-97%.
Weight: 9.800 kgs
Ground surface: 26 x 44 cm (WxL)



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-conditioning chamber.

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

Instrument:

- Sensor CM-2
- 50 sample dishes ePW
- Operating instructions
- certificate of the 6 point factory calibration 11-33-58-75-84-97%.

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



Accessories for a *LabMASTER-aw*



- [110 8568](#) Power cable CH : 1
- [110 8304](#) EU/Schuko : 2
- [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.

Please order with the country code and plug type.

Power cable:

Cable length : 1.5 m

For local power systems with appropriate plugs.

Weight: 260 g

Accessories for *LabMASTER-aw* and *LabPARTNER-aw*



- [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



- [111 1001](#) -> eVC-21
- [111 1003](#) -> eVC-26
- [111 7212](#) -> Redox
- [111 0995](#) -> eVALC
- [111 0997](#) -> eVMT-2
- [111 0999](#) -> eVMS-2

Cell protection filters

for all *LabMASTER-aw* and *LabPARTNER-aw*.

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

-> *Please consult the appropriate datasheets*

Filters:

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

Weight: 30 g



- [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 0186](#) -> 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

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):

3.4 %	colour	white	(DG see general terms of sales)
6.4 %	colour	white	
11.3 %	colour	white	
32.8 %	colour	blue	
52.9 %	colour	green	(DG see general terms of sales)
57.6 %	colour	white	
75.3 %	colour	purple	
84.3 %	colour	white	
90.1 %	colour	white	(DG see general terms of sales)
97.3 %	colour	yellow	

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

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



[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	yellow

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



- [111 - - - -](#) -> SAL-T/C 4% rh
- [111 7000](#) -> SAL-T/C 6% rh
- [111 1056](#) -> SAL-T/C 11% rh
- [111 1057](#) -> SAL-T/C 33% rh
- [111 1060](#) -> 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):

3.4 %	colour	white	
6.4 %	colour	white	
11.3 %	colour	white	
32.8 %	colour	blue	
52.9 %	colour	green	(DG see general terms of sales)
57.6 %	colour	white	
75.3 %	colour	purple	
84.3 %	colour	white	
90.1 %	colour	white	(DG see general terms of sales)
97.3 %	colour	yellow	

Internationally accredited laboratory:



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

Weight: 50g



[Prices 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.



Replacement parts for **LabMASTER-aw** and **LabPARTNER-aw**



111 9983 CM-2 measuring cell

CM-2 replacement cell

Humidity measurement cell without temperature sensor, with active saturation protection. The measurement cell can easily be exchanged by hand. The filter surface on the top of the cell should under no circumstances be touched with the hand or hard objects.

Advantage: *the instrument requires no recalibration after changing a cell: all data are stored in the cell memory.*

Measurement cell **CM-2:**

Range	: 0.03aw...1.00aw (3...100% rh)
Op.temp.range	: 0...50°C
Storage temp.	: 0...50°C
Storage hum.	: 10...80% RH not condensing
Accuracy	: +/- 0.003aw
Accuracy	: +/- 0.3 % rh (in LabMaster when fully calibrated)
Reproducibility	: +/- 0.002aw
Weight	: ca. 2 g



112 0174 O-Ring : 1
112 0175 Metal mesh filter: 2
260 0210 Tension ring : 3

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:

- 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 **LabMASTER-aw standard** to a **LabMASTER-aw advanced**.

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

License 3

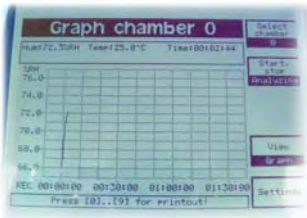
Software code for activating the additional software function from

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 STANDARD & ADVANCED models

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

05..... / 06..... / 07..... / 08..... / 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 instrument LCD screen

Update software package: LabMaster-aw :

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

STANDARD

and

ADVANCED

models



LabSwift-aw

Portable precision instrument for measurement of the a_w -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 **LabSwift-aw** is delivered including the accessories in a handy carrying case..



Measurement range a_w	: 0.03 ... 1.00 a_w , (not 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



LabSwift-aw

Fast, accurate, reliable

The **LabSwift-aw** instrument combines modern technology with measurement speed and high accuracy. Thanks to the Novasina electrolyte sensor the device is able to determine the a_w -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 a_w 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..

Examples of samples, which can be measured with the **LabSwift-aw**:

- Bakery products of all kinds
- Meat and sausages, cheese
- dried food, fruit concentrates
- Pharmaceutical products
- Chemical products
- Cosmetics
- Drugs, natural remedies

Measurement device **LabSwift-aw**:

Dimensions	: 85x140x225 mm
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... 1.00 a_w
Reproducibility	: +/- 0.003 a_w
Accuracy	: +/- 0.01 a_w (0.10...0.95 a_w 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



LabSwift-aw sets

LabSwift-aw set (without battery)



LabSwift-aw set (without battery)

[260 0177](#) mit Euro-Stecker

[260 0178](#) mit US-Stecker

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
 - Ext. power supply Euro or US
 - 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](#) mit Euro-Stecker

[2600180](#) mit US-Stecker

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-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
 - Ext. power supply Euro or US
 - 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 to LabSwift-aw



External power supply
[260 0181](#) with Euro-plug
[260 0182](#) with US-plug

External power supply Euro or US
Power supply and battery charger for LabSwift-aw.
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
to LabSwift-aw



[260 0187](#) Battery set

Battery set to LabSwift-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
to LabSwift-aw



[260 0188](#) PC software
Novalog MC (for LabSwift-aw)

PC software for LabSwift-aw
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 software
Weight: 180g
to LabSwift -aw



[111 0601](#) ePW sample dishes

Sample dishes ePW
For LabSwift-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
Weight : 440 g
to LabSwift-aw



[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

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	
52.9 %	colour	green	(DG see general terms of sales)
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
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
The precision corresponds to eg. the Greenspan Report 1977 typically +/- 0.3 % rh
Weight: 50 g each
to LabSwift-aw



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):

- [111 1056](#) -> SAL-T/C 11% RH
- [111 1057](#) -> SAL-T/C 33% RH
- [111 1060](#) -> 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

- 11.3 % colour white
- 32.8 % colour blue
- 52.9 % colour green (DG see general terms of sales)
- 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

to LabSwift-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 % 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

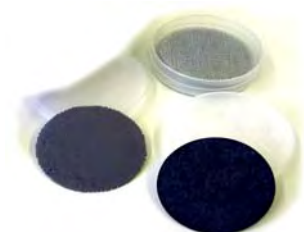
of an aw measurement instrument in an accredited European laboratory

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.



- [111 1001](#) -> eVC-21
- [111 1003](#) -> eVC-26
- [111 0995](#) -> eVALC
- [111 0997](#) -> eVMT-2
- [111 0999](#) -> eVMS-2

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 Stk)
- [111 1003](#) -> eVC-26 (10 Stk)
- [111 0995](#) -> eVALC (2 Stk)
- [111 0997](#) -> eVMT-2 (5 Stk)
- [111 0999](#) -> eVMS-2 (5 Stk)

Weight: 30 g

to LabSwift-aw



Spare parts to 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 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

to LabSwift-aw



[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
- Blister

Weight: 6g
to LabSwift -aw



[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!*

Aw humidity measurement system CM-2:

Meas. range	: 0.03...1.00 _{aw}
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 _{aw}
	+/- 1.0 % RH
(inside LabSwift at 25°C and fully calibrated)	
Reproducibility	: +/- 0.003 _{aw}
No internal temp. measurement	
Weight	: ca. 2 g