



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:

SAL-T salt tablets:
Saturated pure salt solutions, based on national standards, with the following values are recommended:

6%, 11%, 33%, 53%, 75%, 90%, und 98% rh



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: 4 Sensor Checks in a case 11, 33, 75, und 90% 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: 4 SAL-T tablets in a case, 11, 33, 75, und 90% 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

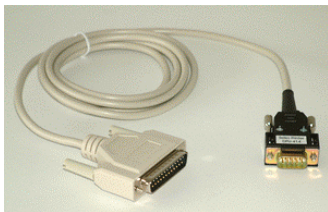
Configured with the standard instrument connector at one end and the locally required power plug at the other.

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** -> 11% rh
- 111 0855** -> 33% rh
- 111 0857** -> 53% rh
- 111 0859** -> 75% rh
- 111 0896** -> 90% rh

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 :

| | | | | |
|--------|-----------|--------|--------|-----------|
| SAL-SC | 11.3 % rh | colour | white | (at 25°C) |
| SAL-SC | 32.8 % rh | colour | blue | |
| SAL-SC | 52.9 % rh | colour | green | |
| SAL-SC | 75.3 % rh | colour | purple | |
| SAL-SC | 90.1 % rh | colour | white | |

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** -> 11% rh
- 111 1037** -> 33% rh
- 111 1040** -> 53% rh
- 111 1035** -> 75% rh
- 111 1032** -> 90% rh

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. Sensor Checks SAL-SC are obtainable for the following values :

| | | | | |
|--------|-----------|--------|--------|-----------|
| SAL-SC | 11.3 % rh | colour | white | (at 25°C) |
| SAL-SC | 32.8 % rh | colour | blue | |
| SAL-SC | 52.9 % rh | colour | green | |
| SAL-SC | 75.3 % rh | colour | purple | |
| SAL-SC | 90.1 % rh | colour | white | |

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. Sensor Checks SAL-SC are obtainable for the following values :

| | | | | |
|--------|-----------|--------|--------|-----------|
| SAL-SC | 11.3 % rh | colour | white | (at 25°C) |
| SAL-SC | 32.8 % rh | colour | blue | |
| SAL-SC | 52.9 % rh | colour | green | |
| SAL-SC | 75.3 % rh | colour | purple | |
| SAL-SC | 90.1 % rh | colour | white | |

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.)

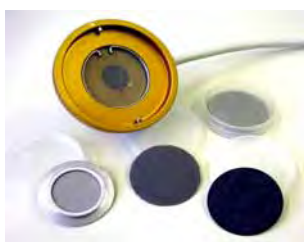
Prerequisite: the laboratory room temperature must be kept absolutely constant.

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:

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

111 1003 -> eVC-26 (10 pcs.)

111 7212 -> Redox (1 pice)

111 0995 -> eVALC (2 pcs.)

111 0997 -> eVMT-2 (5 pcs.)

111 0999 -> 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 |
| 75.3 % | Colour | purple |
| 90.1 % | Colour | white |
| 98.0 % | Colour | orange |

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 |
| 75.3 % | Colour | purple |
| 90.1 % | Colour | white |
| 98.0 % | Colour | orange |

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 |
| 75.3 % | Colour | violet |
| 90.1 % | 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 |
| 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 |
| 75.3 % | Colour | violet |
| 90.1 % | Colour | white |
| 98.0 % | Colour | orange |

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

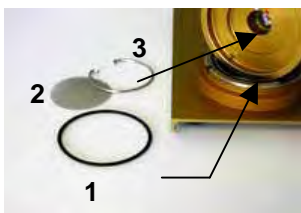
For sensors enCSK and enBSK

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

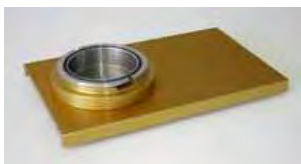
For the AW LAB Set H

- 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



110 0770 Measurement plate PP

Sample measuring plate PP

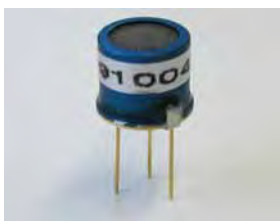
for enBSK-7

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



110 4333 CK-5 cell for aw Lab/Sprint

CK-5 measurement cell

ONLY for AW LAB / Sprint with electronics RTD-500!

Details: see spare parts SPRINT