



ms1 Set AMS

Portable precision instrument for the measurement of the water activity, a_w -value, and temperature in foods and pharmaceuticals



Measuring range a_w -value	:	0.06.. 0.98 a_w
Temperature	:	-20...+80°C
Stick-sensor:	:	enSARK-3
Accuracy	:	+/- 0.01a_w , +/- 0.3°C
Communication	:	Interface RS-232 (option)



ms1 Set AMS

Precise, fast, versatile

A practical, 1000 times-proven precision hand-held measuring instrument ms1 with an a_w display for measuring the relative product humidity (a_w 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 software is available for connecting a printer or PC.

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

Examples of measurements of a_w 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
- Prepared foods
- Pharmaceuticals

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

Measurement instrument ms1 aw:

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

Humidity sensor:

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

Temperature sensor :

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

Humidity standards:

Sensor Checks SC:
Saturated, pure salt solutions, calibrated against national standards, available with the following values:
11%, 33%, 53%, 75%, and 90% rh.

ms1 Set AMS



111 6574 -> with 9V battery

ms1 Set AMS

The Set AM is intended primarily for aw measurements in very large volumes of foodstuffs such as cereals, coffee beans or cheese, or pharmaceutical powders etc. 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.

Bestehend aus :

Carrying case with:

- 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 report of the 5-point calibration 11-33-53-75-90%

Weight: 2.300 kgs

Accessories



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: 250g



111 0826 Com-Port HW/SW

PC communication via RS232

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

Interface Set comprising:

- 1m cable with D-Sub 25/25-pin
- RS-232 Interface
- CD with NOVALOG32 software for Win9x/2000/NT/XP
- User manual

Weight: 450g



111 0562 Port -> Typ 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 Interface 25 / 9

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 Port -> Typ 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