Driesen + Kern GmbH

aw-Meter DK-aw-1100

Reliable Water Activity Measurements

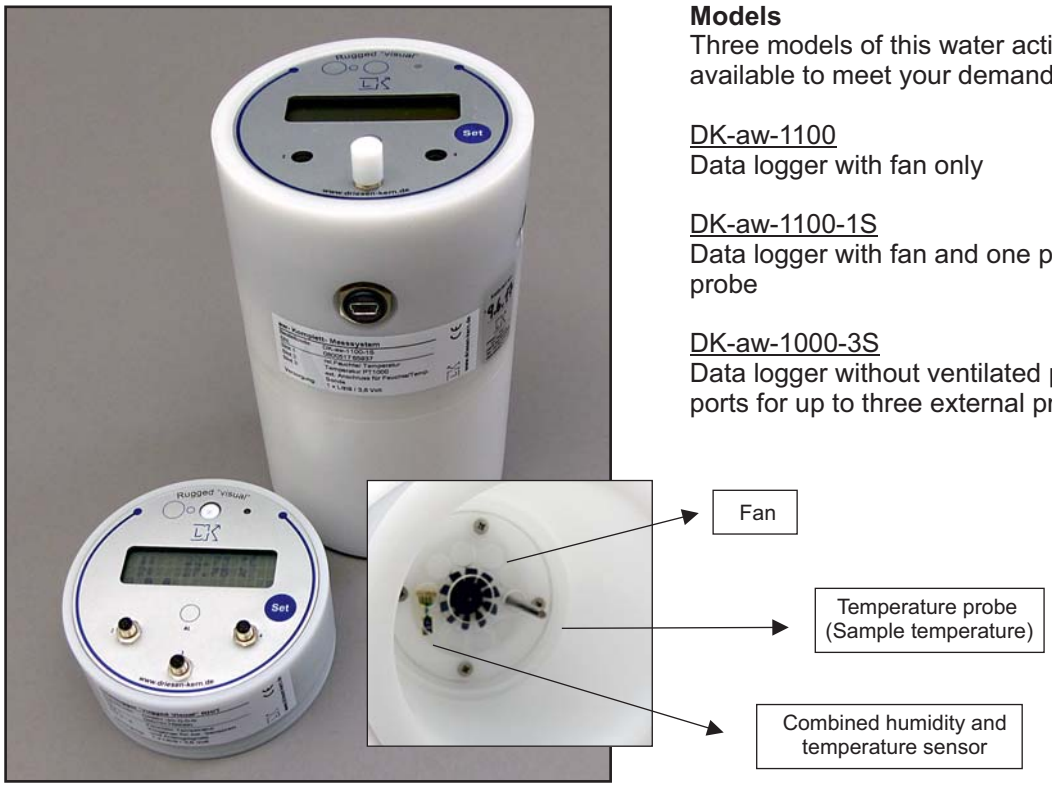
aw-Meter and Data Logger
Type DK-aw-1100/1000

The DK-aw-1100 is best suited for measuring the relative equilibrium moisture content of granulates, pasty products or surfaces, e. g. of paper etc.

Both food and pharmaceutical industries have to offer a wide variety of potential applications which require efficient measurements of equilibrium moisture content.

With the DK-aw-1100 and DK-aw-1100-1S the results are shown 20-40 seconds after the sample has been put into the sample holder, the measuring head has been mounted and the temperature has stabilized.
The DK-aw-1000-3S offers three connectors for humidity, temperature or WA measurements. See the following page for the respective range of probes.

The DK-aw-1100 has a range of 0…1 aw with measurement accuracy of 0.018 aw.



Fan

Temperature probe
(Sample temperature)

Combined humidity and
temperature sensor

Models
Three models of this water activity meter are available to meet your demands:

DK-aw-1100
Data logger with fan only

DK-aw-1100-1S
Data logger with fan and one port for an external probe

DK-aw-1000-3S
Data logger without ventilated probe, comes with ports for up to three external probes.

System Design
The DK-aw-1100 is a modern water activity meter including a data logger. Its measuring head and display are integrated into a single unit making it especially compact and space-saving.

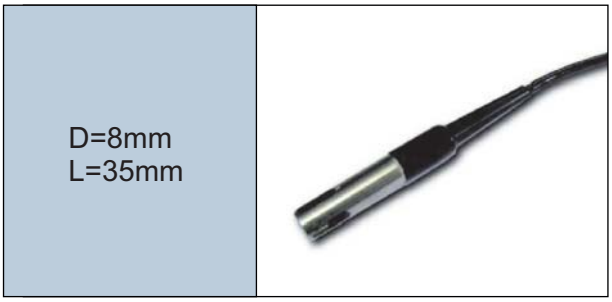
The small sample volume and the miniaturized built-in fan ensure that the air above the sample is well mixed thus allowing for short response times which typically lie between 20 to 40 seconds.

Measuring errors can be eliminated by making sure that the temperature of the sample as well as the temperature of the air above it match. The top unit also features a temperature probe with fast response time helping you to make sure that the thermal balancing is successfully finished.

Additional Probes
For measurements in bulk materials such as pills, grains or plastic granules we offer the DK-aw-1115 penetration probe.

It has a diameter of 8 mm and small slots which allow for air to diffuse through the probe. A filter protects the sensor against dust and powder.

Measurements within packages or confined spaces require a remote probe connected by cable (DK-aw-1116).



Cable probe DK-aw-1116

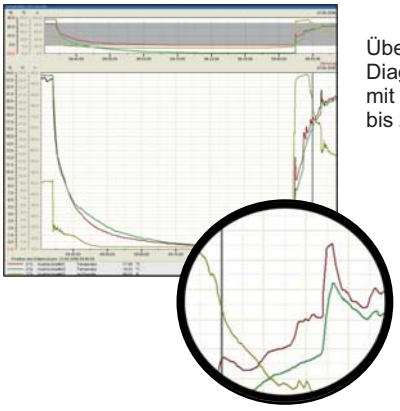
Penetration probe DK-aw-1115

Data Logging

The DK-aw-1100 meter comes with an integrated data logger for long-term measurements.

The InfraLog for Windows V5 Software (start/stop/redout/export to excel) which is also required for long-term surveys is included in delivery together with a USB cable.

Software *Infra*Log for Windows V5
The software InfraLog provides EASY, SECURE & CONVENIENT control for all Driesen+Kern products. After establishing a connection between your logger and PC, InfraLog automatically detects the device.

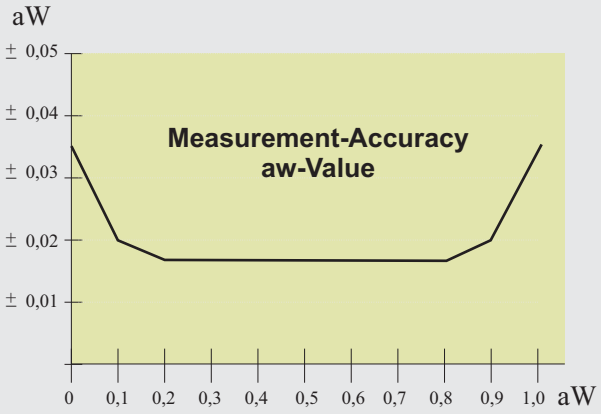


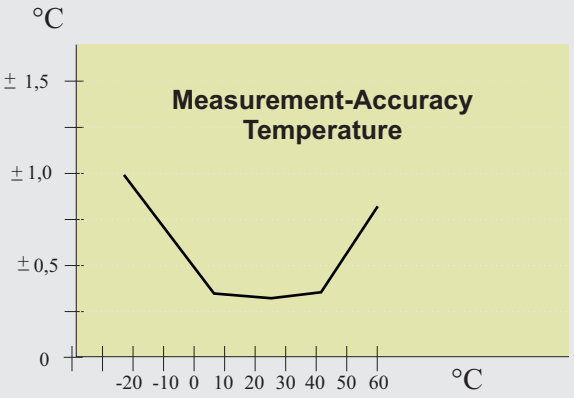
Übersichtliche Diagrammdarstellung mit Übersicht-Ansicht und bis zu drei Y-Achsen

Mit Zoomfunktion

Optionally available: InfraLog V5 “light“ with additional graphic charts. Create daily, weekly or monthly reports with our “enhanced“ (professional) version. Visit our website for more information about InfraLog for Windows software.

The DK-aw-1100 can be powered by the internal batteries or by external power supply.





Specifications

Relative Humidity

Sensor type:	capacitive
Measuring range:	0…100% RH (0…1.0 aw)
Accuracy:	see diagram
Response time:	ca. 20-40 seconds

Temperature

Sensor type:	CMOS
Measuring range:	5…60°C
Storage temperature:	-40…+60°C
Accuracy:	see diagram
Response time:	ca. 20-40 seconds

Units
aw value, relative humidity, absolute humidity
Measuring ranges on request

Dimensions

DK-aw-1100:	d = 90 mm, h = 150 mm
DK-aw-1100-1S	d = 90 mm, h = 150 mm
DK-aw-1000-3S	d = 80 mm, h = 40 mm
DK-aw-1115-Penetration Probe:	d = 8 mm, l = 300 mm
DK-aw-1116-Cable Probe:	d = 8 mm, l = 35 mm

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