

TEXTOMETER DMB-15

Portable moisture meter



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Customer benefits

- ✓ Reliable moisture measurement
- ✓ Covers all material combinations
- ✓ Portable, fast, flexible and precise
- ✓ Easy operation
- ✓ Most effective in fighting mould and fungus

Area of application



Textometer DMB

The Textometer DMB is a mobile handy device for measuring moisture on textile webs and bobbins on a wide variety of versions. It determines the moisture content of raw materials, semi-finished products and finished products precisely and quickly.

The Textometer DMB is small, lightweight and portable – and therefore exactly ready wherever needed. It is mobile for use in the field and just as stationary in the laboratory and plant. The touchscreen of the new device generation ensures even simpler operation. The device can be operated with rechargeable batteries (with automatic shut-off) or power connection.

Stored measurements can be transferred to the PC via USB media.



Product highlights

- ✓ Many universally usable electrodes
- ✓ Touchscreen & colour display
- ✓ Large measuring range
- ✓ Over 5 hrs. of battery operation
- ✓ Data export (CSV) via USB

Universal and flexible



Fully loaded accessories case
(example)

The user selects the most common types of fibres and their composition via the touchscreen. The mixing ratio can be adjusted in 5% increments. The measured values can be stored in separate memory banks and thus divided into different categories (e.g. different types of fabric). An integrated USB interface facilitates transfer of the stored data to a PC.

A large selection of electrodes and accessories allows for a wide range of applications.

Principle of operation



Moisture measurement on bobbins

Preventing mould infestation on fabric



Mould

There is a physical relationship between the moisture content and electric conductivity of hygroscopic materials. It follows a specific curve for each type of material. The Textometer DMB has therefore stored calibration curves of different materials. The matching calibration data is automatically preset by the choice of fibre type or mix of fibre types. The device is immediately ready for use.

Mould infestation of fabric is a recurring problem especially when transported in containers. Negligence may ruin entire container loads here. This leads to costly complaints especially of ready-made goods with high price tags.

Measuring moisture correctly – avoiding mould infestation!

With the Textometer DMB, the moisture content of the goods can be determined correctly before shipping. Drying the goods before shipping to the desired residual moisture value protects against mould infestation and expensive damage compensation claims.

Take cotton, for example

A 40 foot container filled with cotton pants with 10% moisture contains approx. 1500 kg water in the fabric (25 kg/m²). A moisture value of 11.5% in the fabric increases the humidity in the container to 80% (0.025 kg/m²) and more.

The perfect climate for the growth of mould: The container shipment will be inevitably destroyed.

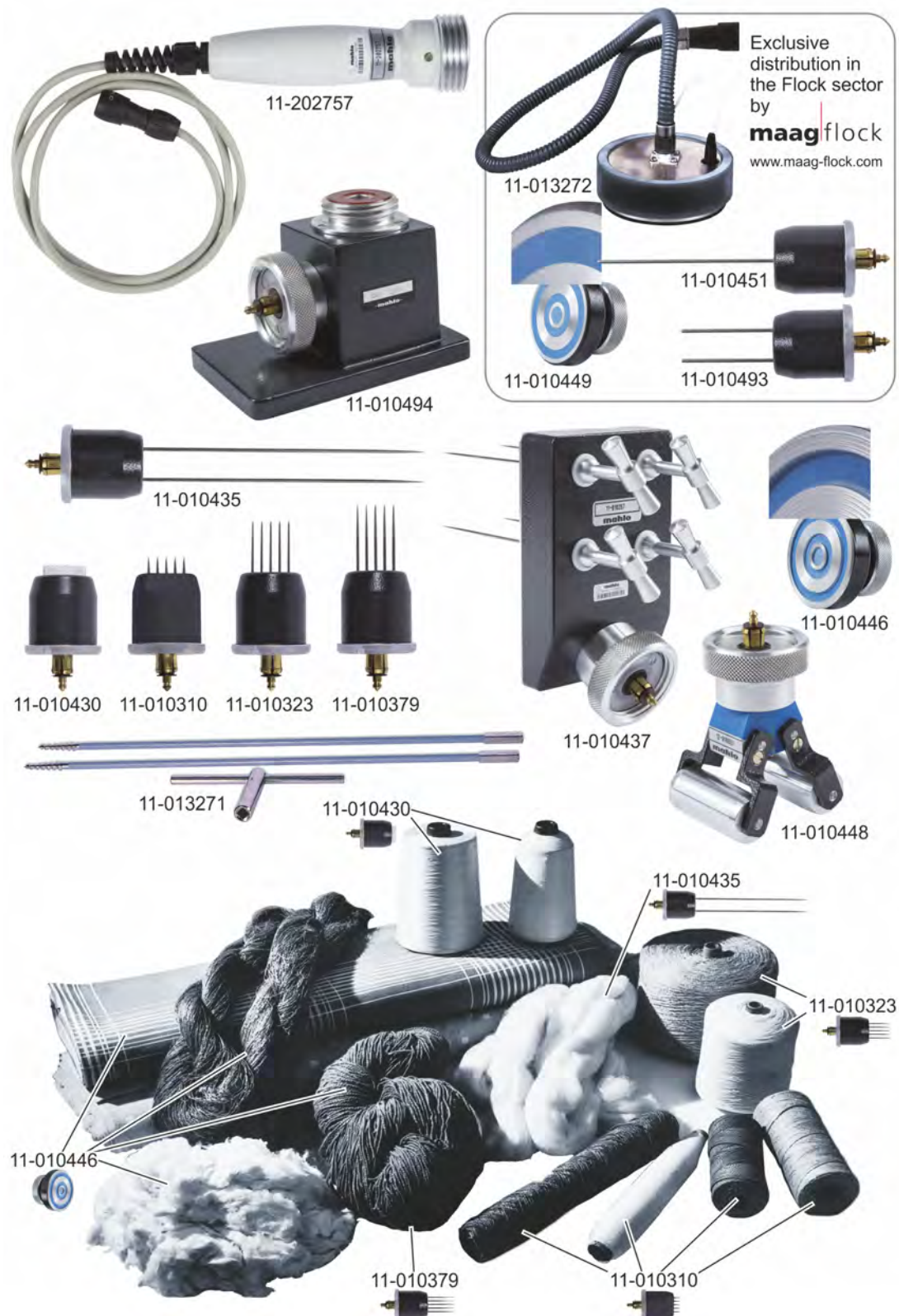
Conductivity measurement for electrostatic flocking



Flocked surface

For electrostatic flocking to run without problems, specific conductivity measuring ranges must be absolutely observed for the materials used. Conductivity measuring devices are therefore indispensable in flock technology. For the flock industry, the Textometer DMB manages – in addition to the normal logarithmic measuring ranges – resistance measurement according to DIN 54 345 for flock measurement. In addition to the Ring electrode, conductivity of the flock can all be measured with an attached electrode.

ACCESSORIES



Textometer DMB accessories and fibre types

Accessories

Tab. 1: Optional accessories

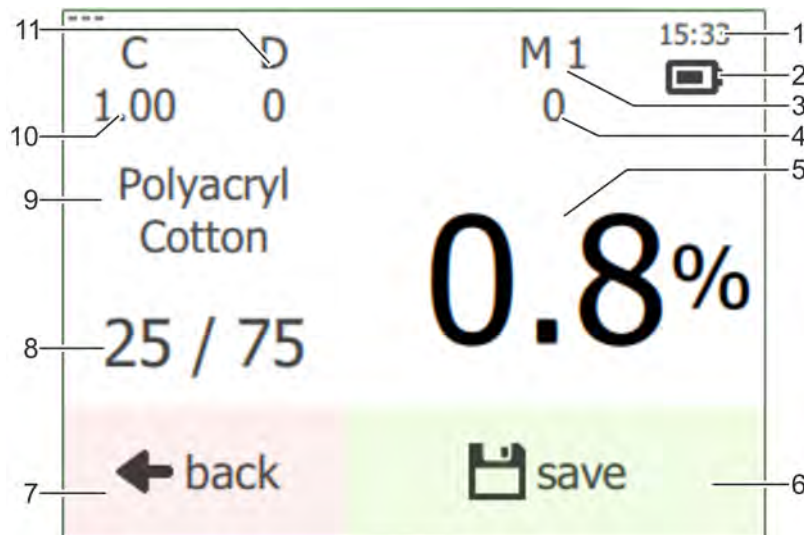
Item no.:	Designation
Electrodes for moisture measurement	
11-010310	Needle electrode with short needles to test cops, cross-wound bobbins and other bobbins (also for measurements on the loom beam), needle length 10.5 mm.
11-010323	Needle electrode with medium needles to test roving bobbins and soft wound cross-wound bobbins, needle length 30 mm
11-010379	Needle electrode with long needles to test soft-wound cross-wound bobbins and yarns in the strand, needle length 38 mm
11-010430	Comb electrode to test sensitive or very hard wound cops, cones and cross-wound bobbins (Reyon, paper yarns, etc.)
11-010435	Two-needle electrode to test card sliver and worsted bobbins and bundled hank yarns, needle length 160 mm
11-010437	Bale electrode to test fibre bales with low to medium hardness, needle length 150 mm
11-010446	Contact electrode (corrugated) to test flocks, nonwovens, bands, hank yarns, wovens and knitted fabrics
11-010448	Roller electrode to measure running product webs and thread warp
11-013271	Special bale electrode to measure hard-pressed fibre bales from cotton and viscose staple fibre, consisting of two 500 mm long special bits, socket spanners and connecting cable
Electrodes for flock measurement (Exclusive distribution by MAAG GmbH - www.maag-flock.com)	
11-010449	Contact electrode (flat) for flock measurement
11-013272	Ring electrode for flock measurement according to DIN 54345
11-010451	One-needle electrode for flock measurement
11-010493	Two-needle electrode for flock measurement
Connecting cable electrode – base unit	
11-202757	Connecting cable with handle section to connect the electrodes, double-shielded connecting cable with locked bayonet medical plug
11-010494	Connection piece as base for the electrodes
11-010883	Earth cable for flock measurement
Others	
12-002059	Ring nut
81-000528	Accessories and transport case
12-513094	Weight 3 kg for handle section
41-016759	Bumper housing with carrying strap
11-013285	Battery pack (Battery compartment with 4 x AA NiMh batteries)
42-013670	USB cable mini USB to USB 2.0

VISUALIZATION

Measured value display

The user interface combines the control and display functions on the screen. The touchscreen technology allows entering the command directly by operating the corresponding buttons on the screen.

The device can be adjusted so that the last active display is loaded after restart. Normally, this is the measured value display.



Overview of function areas of the user interface

- 1 **Time:** Date and time can be set by pressing the time (= touch field)
- 2 **Battery indicator:** Low residual capacity of the rechargeable battery is indicated separately through a one-time respective warning on the screen.
- 3 **Memory bank:** By pressing the memory bank display (= touch field), a different memory bank can be displayed.
- 4 **Number of measured values saved:** Indicates how many measured values are stored in the memory.
- 5 **Measured value:** Display of the currently measured value:
Textile measurement, moisture in %
Flock standard, moisture in scale increments [Nrm]
- 6 **Button Save:** The current measured value is stored by pressing the button.
- 7 **Button back:** Pressing the button returns the user to the previous menu.
- 8 **Mixing ratio:** The mixing ratio can be adapted by pressing the mixing ratio (= button field).
- 9 **Fibre mixture or fibre type:** By pressing the fibre mixture / fibre type (= button), a new blended fabric / fibre type can be set.
- 10 **Calib. Factor:** Setting the calibration factor in increments of 0.01.
- 11 **Damping:** Adjusting the damping value in increments of 1.

TECHNICAL DATA

Specification	Value	Unit
Measuring principle	Conductivity measurement	
Power supply power supply unit	120 / 240	VAC
Line frequency power supply unit	50 / 60	Hz
Power consumption, maximum	5.5	W (on 12 V)
Power supply rechargeable batteries (AA NiMh batteries)	4 x 1.5	V
Operating time battery operation *	≥ 5	h
Automatic shut-off function, minimum	10	s
Automatic shut-off function, maximum	Continuous operation	
Version housing	Plastic	
IP protection class	IP 54	
Temperature range	5 – 45	°C
Relative humidity (non-condensing)	0 – 95	%
Operating altitude above sea level, maximum	1000	m
Dimensions device	278 x 62 x 193	mm
Weight device	0.8	kg
Dimensions accessories case	500 x 420 x 175	mm
Weight accessories case	2.9	kg

* The maximum possible operating time with battery operation depends, amongst others, on the product moisture to be measured, duration and frequency of the measurements as well as the capacity and condition of the batteries used. A precise value can therefore not be specified.

Monitoring and control systems, automation

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