

PRACTICAL ADVANTAGES:

Compact multi-functional measuring instruments – digital precision without the disadvantageous measured value drift of analogue instruments

Simple one-handed operation using a thumbwheel

Rugged, compact housing

Attractive price/performance ratio



Whether for quality assurance or control, construction checks, damage detection or the diagnostic examination of buildings, these compact hand-held measuring instruments deliver all measured values quickly and easily:

- Air temperature
- Surface temperature
- Relative humidity
- Absolute humidity
- Dew point
- Material moisture

Developed, manufactured and quality-checked in Germany, these measuring instruments, which have been awarded the quality seal, stand out due to their digital precision, sturdy workmanship, ergonomic design, easy one-handed operation and value for money.



Practical advantages “as standard”:

All professional hand-held measuring instruments from the MultiMeasure series are based on a standard operating concept: **“If you know one instrument, you can master them all!”**

Even when changing from one instrument to another, you can start work immediately and hardly need any time to adjust. All the functions of the instruments can be selected with just one hand using the thumbwheel. This way, you always have one hand free when measuring.

Compact measurement instruments



Thermohygrometer T200

- Air humidity
- Air temperature

The T200 is a professional hand-held instrument for building climate checks in living spaces, offices, production areas and storage rooms.

The precision sensor module of this thermohygrometer is protected from dirt and dust in the robust measuring head of the unit by means of a metal grid filter, and enables rapid and accurate determination of air temperature and relative humidity.

Both parameters are displayed simultaneously in real time on the easy-to-read display.

In addition to relative humidity, further climate parameters such as dew point, or absolute water content of the air, can be analysed with this instrument. The air temperature display can be switched between °C and °F.

For an immediate evaluation of the measured data, minimum, maximum and average functions are available. In addition the current measured value can be retained by means of the hold function.

Everyday working conditions often include dust and dirt which may falsify measuring results and shorten the sensor life. The T200 and T250 measuring devices are equipped with a metal grid filter as a standard!

Infrared thermohygrometer T250

- Air humidity
- Air temperature
- Surface temperature
- Dew point alarm

As a professional hand-held instrument in the MultiMeasure series the T250 offers you the same precision, high quality and simplicity of operation as the T200. The fundamental difference is the particularly large range of functions provided, since **the T250 combines thermohygrometer, laser pyrometer and dew point alarm in just the one unit.**

Three modes of operation and many measurement functions – all can be selected with only one hand using the thumbwheel - turn the T250 into a mobile measurement station in top pocket format: In the **TH mode** the measuring instrument corresponds to the T200 and offers you all the functions of this thermohygrometer.

In the **IR mode** you can use the T250 as a laser pyrometer for surface temperature measurement with measurement location marking.

A particular practical advantage is the dew point alarm function:

In the **DP mode** the dew point temperature and the surface temperature are displayed simultaneously in the well

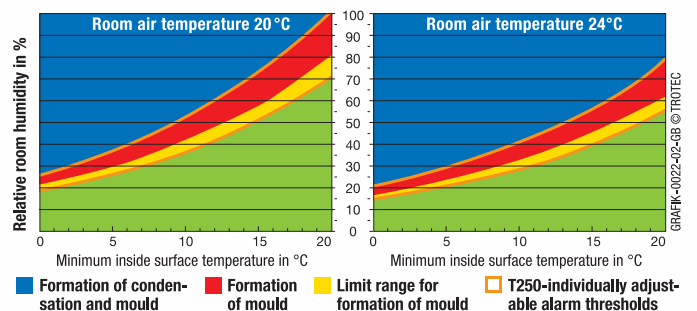


visible display. As soon as the wall temperature is below the dew point temperature, the T250 alerts the user with an optical laser signal and an alarm tone.

Wall surfaces can be examined in no time and weakpoints detected quickly with the alarm function. The alarm thresholds are individually configurable.

The adjacent figure shows limit ranges of formation of condensation or mould in buildings depending on the minimum inside surface temperatures in the area of heat bridges.

With the T250 all the necessary measuring variables – room temperature, humidity, surface temperature, dew point – can be determined with just one measuring instrument!



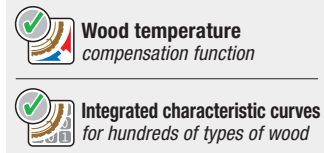
Please also use our e-training service zone:

There you will find diverse tips on the handling and possible applications of your Trotec measuring device, clearly worded and interactively illustrated, as well as answers to frequently asked questions. More information at www.trotec-etaining.com.





Moisture meter T500



- Measurement of wood and material moisture with one device
- Temperature compensation function for wood moisture measurement
- Auto-calibration
- Integrated material characteristic curves for hundreds of different types of wood

- Very simple one-handed operation
- Includes comprehensive material characteristic curve compendium
- Expanded range of applications: **all MultiMeasure electrodes** can be connected to the T500 using the optional TS adaptor set

The T500 is a professional hand-held measuring instrument for the precise determination of the moisture content of wood and materials using the resistance method.

Besides detecting the moisture content of soft building materials such as gypsum or plaster, the T500 is better suited than any other instrument in its class for measurement checks in forestry operations, sawmills and all wood processing works. This is because the T500 features a menu option that allows the selection of hundreds of different types of wood, especially for detecting the moisture content of wooden materials.

This is made possible by a large number of validated material curves, which are stored in the instrument software and can be selected from the T500 wood-type table using the corresponding material number. The wood-type index, which is included in the supply package and runs to 170 pages, is probably the most comprehensive material curve compendium on the market!



As one would expect from a professional wood moisture measuring instrument, the T500 features a special function to compensate for the temperature of the material measured.

The real-time measured wood moisture content and the predefined wood temperature are shown simultaneously on the easily readable display during measurement. The current measured value can be frozen with a hold function if required.

Combine the practical advantages of the T500 with the expanded possibilities of a flexible choice of electrodes:

Using the TS adaptor set and the corresponding connecting cable you can connect all MultiMeasure electrodes for measuring wood and building moisture to the T500 and benefit from a wide range of applications that no other compact moisture measuring instrument in this class can offer.

Thanks to the long cable connection, moisture measurements can be performed conveniently and simply even in poorly accessible places. In addition you can enlarge the range of applications of your T500 in a unique way:

Would you like to perform moisture measurements on concealed building components?

In hard building materials such as concrete?

On wooden beam ceilings? In the damp course above the edge joints?

On multi-skinned wall or ceiling structures?

On the widest variety of wood types of different hardnesses?

No problem with the TS adaptor set:

Whether ram electrodes, layer-depth, round or flat electrodes, in all available lengths and diameters, with insulated or non-insulated electrode tips – the complete range of MultiMeasure electrodes can be connected easily to the T500!

Even your existing electrodes made by other manufacturers can be used on the T500 with the TS adaptor set, if connection is possible.



The standard scope of supply includes, besides the T500 measuring instrument, two cap nuts, ten measuring spikes (length 20 mm, ø 1.5 mm), protective cap for the electrodes, battery, operating manual and a comprehensive 170-page index of wood types.

Using the optionally available TS adaptor set (1) and the TC 25 connecting cable (2) you can widen the T500's range of applications considerably by connecting any electrodes from the MultiMeasure range to the T500.



The installation is child's play:

The TS adaptor set consists of two special adaptor heads that can be screwed quickly and easily to the top of the T500 in place of the standard cap nuts and serve as plug connectors for the optionally available TC 25 connecting cable. Using this connecting cable you can then connect the desired electrodes to the T500.



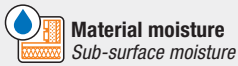
Additional MultiMeasure compact measuring instruments for measuring material moisture can be found on the following pages, along with all technical data... →



This catalogue is constantly updated, even between going to press. Download the latest version of these pages as individual brochures to your PC. You will find the latest product information, price lists, operation manuals and much more in our download area at www.trotec.com.

Moisture measurement instrument T600

Sub-surface moisture



Material moisture
Sub-surface moisture



Moisture alarm



The T600 is a professional hand-held instrument for rapid non-destructive measurement of sub-surface moisture content.

By means of microwave technology it is possible to detect distributions of moisture content at a depth of up to 300 mm. Another advantage of the method, in addition to the great measuring depth, is its independence from the level of salt content present in the material. It therefore makes no difference to the microwave technique whether an older or a new building is being measured.

Both material moisture measuring instruments feature a maximum, minimum and 'hold' function for the direct evaluation of the measured data. The selected functional values are then shown additionally on the lower measured value display of the instrument.

In addition, an individual alarm limit value can be set: even large wall or floor surfaces can be measured quickly and effectively by means of the alarm function. The user can concentrate on the object being measured without having to constantly watch the measurement results on the display:

If the selected digit limit value is exceeded, the T600 and T650 warn the user by means of an acoustic signal!

Moisture measurement instrument T650

Surface moisture



Material moisture
near to surface



Moisture alarm

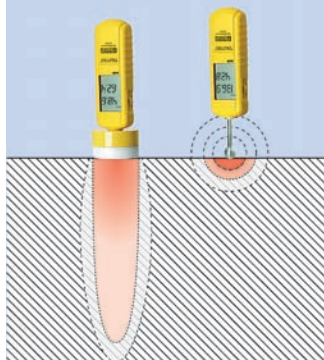


The T650 is a professional hand-held instrument for fast, non-destructive determination of moisture content distributions in areas up to a depth of 4 cm from the surface.

Damp and dry wall and floor areas can be detected by permanent real time display of the measured values.

In addition, the device is suitable for preliminary inspection of the maturity of building materials in CM measurements.

Practical tip: With the combined use of the T600 and T650 measurement of surface and sub-surface moisture content values over a grid pattern enables meaningful results to be achieved in terms of a multidimensional moisture content distribution!



Which equipment for which measuring task? The MultiMeasure series in a quick comparison...							
	T200	T250	T500	T600	T650	T2000 E	T2000 S
Humidity	●	●	●	●	●	●	●
Air humidity	●	●				●	●
Wood moisture			●		①	②	●
Building moisture			●	●	①	②	●
Equilibrium moisture						●	●
Material moisture			●	●	①	②	●
Surface measurement up to 4 cm					●	●	●
Depth measurement up to 30 cm				●		●	●
Dew point	●	●				●	●
Temperature	●	●				●	●
Air temperature	●	●				●	●
Surface temperature		●				●	●
Material temperature						●	●
High temperature measurement						●	●
Trace gas measurement						●	●
Hydrogen concentration						●	●
Velocity measurement						●	●
Airflow speed						●	●
Alarm function		●		●	●	●	●

① Moisture measurement according to the dielectric process
 ② All SDI- and Pt100 sensors from the MultiMeasure series can be connected to the T2000 E as well as compatible sensors from other manufacturers. Passive electrodes for material, wood and building moisture measurements using the resistance measuring method cannot be used with this device.

Technical data		T200	T250	T500	T600	T650
Article no.		ZB9110004	ZB9110007	3.510.207.500	ZB9110012	ZB9110014
Sensor display 1	Measured value	Air temperature	Air temperature / Surface temperature ¹⁾	Wood moisture / Material moisture	Material moisture, Sub-surface moisture	Materialfeuchte, Surface moisture
	Units	°C, °F		%, Digit	Digit	
Sensor display 2	Measured value	Relative humidity, absolute humidity, dew point ²⁾		Compensation value for wood temperature ³⁾		
	Units	% r.H., dp °C, dp °F, g/m ³		°C, °F		
Air and dew point temperature	Measuring principle	NTC				
	Measuring range	-20 °C...+50 °C				
	Resolution / Accuracy	0.1 °C / ± 0.4 °C *				
Air humidity	Measuring principle	Capacitive				
	Measuring range	5...95 % r.H.				
	Resolution / Accuracy	0.1 % r.H. / ± 3 % r.H.				
Surface temperature	Measuring principle		Thermopile			
	Measuring range / Optical resolution		-20 °C...+60 °C / 8:1			
	Resolution / Accuracy		0.1 °C / ± 2 °C			
Material moisture	Measuring principle			Resistance method	Microwave	Dielectric
	Measuring range			15...100 digit	0...200 digit	
	Resolution / Accuracy			0.1 digit / 0.1 digit		
	Depth of penetration			Approx. 10 mm ⁴⁾ (connection)	Max. 300 mm (non-destructive)	Max. 40 mm (non-destructive)
Wood moisture	Measuring principle			Resistance method		
	Measuring range			5 %...50 %		
	Resolution / Accuracy			0.1 % / 1 % **		
	Temperature compensation			0 °C...50 °C		
	Electrodes length / ø			20 mm / 1.5 mm		
	Max. depth of penetration			Approx. 10 mm ⁴⁾		
Functions	Alarm signal		Audible / optical		Audible	
	Menu functions	Max., Min., Hold, Avg., Unit 1, Unit 2, Cal 1, Cal 2	Max., Min., Hold, Avg., TH, IR, DP, CFG, Unit 1, Unit 2, Cal 1, Cal 2	Hold, Sens, Mat., Temp., Unit 2	Max., Min., Hold, Alarm	
General tech. data	Dimensions approx.	175 x 48 x 25 mm	178 x 48 x 39 mm	168 x 48 x 25	180 x 65 x 65 mm	190 x 48 x 25 mm
	Weight approx.	200 g	250 g	320 g	220 g	250 g
	Operation conditions***	0...50 °C, < 95 % r.H.		0...50 °C, < 90 % r.H.	0...50 °C, < 95 % r.H.	
	Storage conditions***	-30...60 °C, < 95 % r.H.		-10...60 °C, < 95 % r.H.	-30...60 °C, < 95 % r.H.	

¹⁾ in IR-mode; ²⁾ T250: not in IR-mode; ³⁾ only in the wood moisture measuring mode; ⁴⁾ with standard electrodes
 * at 0...40 °C, otherwise ± 0.7 °C ; ** in the range of 6 %...30 % wood moisture; *** not condensing

Basic hand-held measuring instruments

Besides professional instruments, the MultiMeasure series also includes several basic hand-held measuring instruments, which have been optimised for semi-professional use and allow the user an inexpensive introduction to the MultiMeasure series:

Moisture meter T60

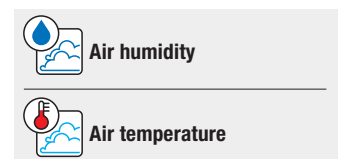


Compact hand-held measuring instrument for the fast determination of the moisture content of materials or wood using the resistance method.

The optimum area of application for the T60 is the fast determination of the moisture content of timber and firewood.

The measuring instrument can also be used to detect the moisture content of soft building materials such as gypsum or plaster.

Thermohygrometer T2



Reliable aid for the simultaneous measurement of relative humidity and ambient temperature.

Minimum value, maximum value and "hold" functions are available for the evaluation of the measured values.

