

PRACTICAL ADVANTAGES:

Multifunctional measuring instruments with digital precision without the measured value drift disadvantage of analogue instruments.

SDI input for serial sensors such as temperature, relative humidity, flow speed and destruction-free humidity measurement.

Input for Pt100 sensors for temperature measurement

BNC electrode input for precision material moisture measurement (only T2000 S)

Downward-compatible with analogue OEM sensors

Large back-lit display

Thumbwheel enables simple one-handed operation

Rugged housing

Excellent price/performance ratio

MultiMeasure

Humidity measurement

- Air humidity
- Wood moisture
- Building moisture
- Equilibrium moisture
- Material moisture
- Dew point

Temperature measurement

- Air temperature
- Surface temperature
- Material temperature
 - solids
 - bulk materials
 - liquids
 - gases
 - foodstuffs

Velocity measurement

- Airflow speed

Multifunctional measuring instrument T2000



Industry, trade, surveyors and architects expect from a "real" multifunctional measuring instrument for material and building diagnosis:

- reliability
- flexibility
- security of investment

The T2000 unites all these requirements

The rugged housing can withstand rough operating environments and the one-handed operation with the thumbwheel

allows the user to concentrate on the measurement.

The large, illuminated display is well legible even in poor light conditions and the numeric values can easily be recorded photographically – an advantage for stocktaking or damage assessment. And of course the T2000

displays either date or time for every measurement: Practical for photographic documentation.

Digital precision...

The heart of the T2000

is a 24-bit analogue/digital converter which supplies long-term stable, precision results which analogue instruments cannot achieve even in a rough environment. The digital technology of the "Serial-Digital-Interface" (SDI) opens up a new dimension in flexibility in measuring missions for the user.

Full range of sensors and electrodes...

Another decisive practical advantage is the flexibility of the T2000.

The new concept of a universal basic unit supplemented by interchangeable sensors

means that the user no longer needs to carry around a whole assortment of measuring instruments.

About 30 sensors and electrodes are available and allow many different parameters to be measured.

In addition to the innovative SDI sensors, the T2000 programme also includes different Pt100 sensors for temperature measurement as well as round, flat and layer depth electrodes for wood and building moisture measurement.



With the T2000 you have one single measuring instrument for many tasks instead of many instruments for one task!

T2000 – One measuring instrument for MANY applications:



Air humidity



Wood moisture



Building moisture



Moisture-Alarm



Material moisture



Equilibrium moisture



Dew point



Air temperature



Material temperature



Wood temperature



Surface temperature



Food temperature



Gases temperature



Bulk material temperature



Liquids temperature



Airflow speed

A development from practice for practice...

Extensive tests with experienced users, research institutes and trade associations have proven the high practical capabilities of the T2000.

The device is suitable both for classic applications in industrial and construction diagnostics and for many areas of the building trade such as floor and tilers, painters and carpenters who need to test the moisture content of walls, floors and wood.

Temperature compensation with and without an external sensor is possible in wood moisture measurement.

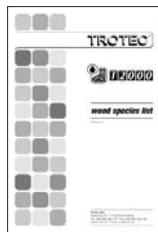
The T2000S has a menu option which allows selection of hundreds of different kinds of wood specially for measuring the moisture content of wood materials!

It is backed up by many validated material curves stored in the software which can be selected from the T2000 wood type table with the appropriate material number.

A detailed list containing more than 5,000 trade names of approx. 500 types of wood including botanical names and family classifications is available on request.



In our wood classification database (www.trotec.com) all material numbers can be determined in an individual search – even using international nomenclature.



Low price – great variety – security of investment...

The T2000 unites digital technology, high quality equipment and numerous advantages not only in a very attractive price/performance ratio but also enables secure reasonable use of previous investments.

Because the T2000 is open to many sides and builds a bridge between analogue and digital technology.

In addition to the Trotec sensors you can not only connect electrodes from other manufacturers to the device but will also be able to combine future sensor developments with the T2000.

In this way you can continue to use your existing sensors and at the same time profit from the additional advantages of the SDI sensors and future sensor solutions!

T2000 – as diverse as your work

The T2000 design follows the thinking that instead of having many measuring devices for separate applications it would be better to have a single measuring device for lots applications.

With the T2000, flexibility begins with the choice of device:

There are two different models available....

The **T2000 S** will equip you optimally for the most diverse measurement applications because you can attach to it all sensors and electrodes in the Multi-Measure programme and compatible non-Trotec sensors and electrodes.

The **T2000 E** is the cost-effective solution for all users who, for their measurements, don't need the T2000 S' BNC connector to attach passive electrodes according to the resistance method for their measurements, but don't wish to miss out on the T2000's many advantages.

Connection options for T2000 E and T2000 S models:

The T2000 E and T2000 S are fitted with a 5 pin plug connector to which you can attach Trotec SDI- and Pt100 sensors and is also compatible with non-Trotec sensors*.

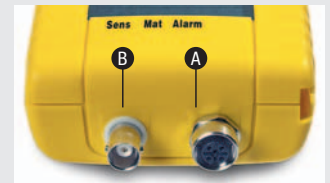
The T2000 S also has a BNC input which supports the connection of electrodes for building and wood moisture measurement according to the resistance principle (Ohm's Law).



T2000E

Connection to the 5 pin plug connector (A):

- Trotec SDI sensors with TC 30 SDI connecting cable
- Trotec Pt100 sensors (5-pin plug connector usually integrated)
- Non-Trotec sensors* with TC 10 adapter cable



T2000S

Connection to BNC input (B):

- Passive Trotec wood and building moisture electrodes with TC 20 connecting cable
- Non-Trotec electrodes* with TC 20 adapter cable

* Info available on request

Also ideal for furniture makers, joiners, wood workers, forestry, wood merchants...

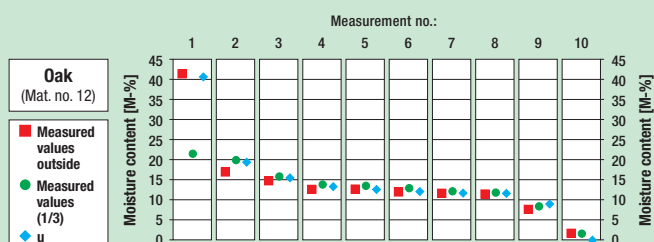


Figure: Comparison of moisture content measured values in the case of wood moisture measurements according to the resistance principle on a piece of oak, series of measurements taken on ten different dates.

GRAFIK
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Whether monitoring drying processes, quality control for wood suppliers, documenting quality of workmanship, analysing ambient conditions for assembling in situ or damage assessment and cause analysis in the case of complaints, precise moisture measurements of the most diverse types of wood are no problem with the T2000 S. For temperature compensation – e.g. cold wood – you can attach a Pt100 sensor as well as the moisture measurement electrode.

Research work carried out by the institute for building research at the RWTH Aachen, Germany, showing the accuracy of resistance measurement using the T2000 in a comparison of kiln drying, is thoroughly documented in the T2000 practice handbook. As an example of the results of the comprehensive series of trials the chart here shows measurement results determined on a piece of oak.

An overview of available SDI sensors, Pt100 sensors, electrodes and accessories for the T2000 can be found on the following pages...



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.

T2000 SDI sensors – simply operation, intelligent technology...



SDI sensors are sensors with a “Serial digital interface“. Both T2000 models have a 5-pin plug connector to which various SDI sensors can be attached to allow the display of a vast range of measured values on the device itself. In this case values such as air temperature, relative humidity, absolute humidity, dew point, material moisture and airflow speed are independently calculated by the SDI sensor and transmitted to the device.

The digital technology avoids the drifting that occurs with analogue devices!

All calibration settings are also saved directly in the SDI sensor. A works certificate enclosed with every T2000 documents the accuracy of the measurements.



If site conditions require other measurements to be determined, in order for example to be able to determine correlations or because new aspects arise to be taken into consideration during the measurement process, you simply change the sensor – thereby turning a thermohygrometer into a microwave moisture sensor or a dielectric moisture sensor into an anemometer.

You do not need to adjust any device settings when exchanging sensors:

Thanks to its intelligent technology the T2000 automatically detects which sensor is attached when the SDI sensors are changed.

Simple operation continues throughout the measurement. Not only the minimum and maximum values but also average and “hold” values can be displayed – all in a split second and by one-handed operation with the thumbwheel.



The T2000 also has a side locking slit in which the sensors can be held.

In this way, measurements and device settings can be carried out single-handedly, leaving your other hand free for other activities!



Pt100 temperature sensors and electrodes for wood and building moisture measurement are shown on the following pages.

With the T2000, combination measurements in building diagnostics pose no problem ...

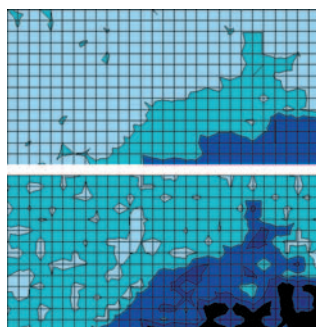


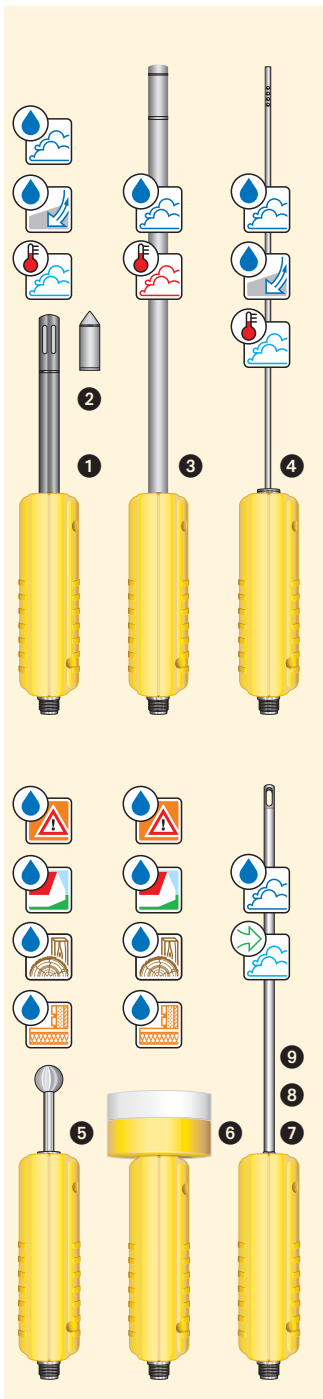
Figure left (Surface representation of the measured values with MS-Excel™): Rising humidity can also be diagnosed with the combined use of both sensors. The sub-surface moisture measurement (below) in the brickwork yielded significantly higher values than the surface moisture measurement (above).

The combined use of surface and sub-surface moisture sensors allows you to map, limit and classify complex relationships, e.g. hygroscopic humidity occurrences due to salt build-up or to locate seal breaches and leaks.

The TS 300 SDI dielectric moisture sensor detects the top 2 to 4 cm of the building material while the TS 350 SDI microwave moisture sensor measures the volumetric humidity values up to

depths of 30 cm. High humidity values in surface areas are barely considered by this sensor.

Carrying out raster measurement using both measurement processes on the basis of surface and sub-surface measured values will give reliable results about multi-dimensional moisture distribution.



Climate measurement

Air temperature and air humidity

TS 200 / 220 / 240 SDI – climate sensors

For measuring **air temperature** and **humidity**. **Relative humidity** (r.h.), **absolute humidity** (g/m³), **air temperature** (°C, °F) and **dew point temperature** (dp °C, dp °F) are determined.

Temperature and humidity measured values are shown simultaneously in real time on the display of the T2000.

Minimum, maximum, average and “hold” values can be displayed optionally in addition to the measured value.

Since there is frequently a heavy accumulation of dust and dirt under practical conditions which can lead to falsification of the measuring results and shortening of the sensor life, the TS 200 SDI ① is **already equipped with a metal grid filter as a standard** (measurement range -20 to 70 °C; 0 to 98 % r.h.).

A high grade steel sinter filter ② is optionally available for environments with heavy soiling.

The 250 mm long stainless steel TS 220 SDI ③ sensor fitted with a Teflon filter enables high temperature measurements, e.g. of drying processes up to 140 °C, and up to 180 °C in the short-term (measurement range -40 to 140/180 °C; 0 to 100 % r.h.).

The TS 240 SDI ④ climate sensor is 250 mm long with a diameter of just 4 mm. It is therefore ideal for temperature and moisture measurements in confined places and for hygrometric comparative measurement in drilled holes > 4 mm (measurement range -40 to 100 °C; 0 to 100 % r.h.).

Moisture measurement

Surface moisture

TS 300 SDI – dielectric moisture sensor

The area of application of the TS 300 SDI ⑤ is in the **non-destructive determination of moisture distributions in areas up to 4 cm away from the surface** (measurement range 0...200 digit).

The TS 300 SDI can display **Minimum, maximum, average and “hold” values**.

Sub-surface moisture

TS 350 SDI – microwave moisture sensor

With its microwave technology, the TS 350 SDI ⑥ is suitable for **non-destructive moisture measurement up to a material depth of 30 cm** (measurement range 0...200 digit).

Another advantage is the **independence from the degree of salination of the material**. It therefore makes no difference to the microwave technique whether an older or a new building (hygroscopic signs of moisture) is measured.

Alarm function

Additionally an individual alarm limit can be defined with both moisture sensors.

Advantage of the alarm function: Large areas can also be measured quickly and effectively. The user can concentrate on the target without having to watch the measuring results on the display the whole time.

As soon as the selected limit is exceeded, the sensor alerts the user with an acoustic signal!

Velocity measurement

Airflow speed

TS 400 / 420 / 460 SDI – anemometer sensors

With these sensors it is possible to measure **airflow speed** and **temperature** simultaneously. **Minimum, maximum, average and “hold” values** can be displayed optionally in addition to the measured value.

The anemometer sensor TS 400 SDI ⑦ (measurement range 0 to 50 °C; 0 to 20 m/s, accuracy approx. ±0.2 m/s) is not only suitable for checking the distribution of flow and temperature in air conditioning and climate control systems but also for pinpointing weakness when demonstrating the air density of buildings (Blower Door).

Reconstruction companies also use it to check the capacity of their drying installations in insulation layer drying because this sensor allows them to determine quickly and exactly whether there is sufficient flow of air at the relief openings to dry out the insulation layer!

For measurement jobs requiring particularly precise results, particularly with small flow values up to 2 m/s, the TS 420 SDI ⑧ anemometer sensor can offer a degree of accuracy of 0.04 m/s (measurement range 0 to 50 °C; 0 to 2 m/s).

As a cost-effective standard anemometer sensor the TS 460 SDI ⑨ is also available. Almost precise as the TS 400 SDI, but fitted with a polycarbonate tip (ø 12 mm) rather than one of stainless steel.

Practical example: causal analysis of fungal growth due to condensation humidity...

Diagnosing condensation humidity problems in homes is usually simple and reliable using combined TS 300 SDI and TS 350 SDI sensors.

Condensation humidity is manifested in many cases in increased humidity content in near-surface areas while deeper inside the brickwork it remains dry. If additional room climate measurements using the TS 200 SDI

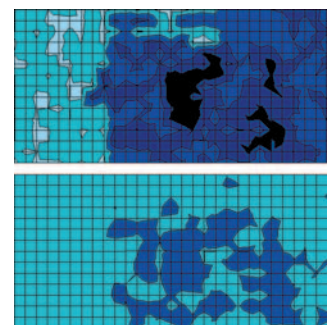
(rel. humidity, room temperature and dew point temperature) can verify that the temperature and air conditions in the affected areas confirm the results of the measurements, for example, in the wall area, one can conclude that the ventilation is defective.

However, if the sub-surface measurement using the TS 350 SDI also indicates increased humidity values, this may

suggest further causes for the humidity problem (e.g. leaking risers, gutters or drains etc.).

For this kind of problem you need just one device, the T2000, to carry out all the measurements!

Application example (figure): The humidity raster determined by combined measurement using surface and sub-surface sensors indicates condensation humidity: While the figure above shows strong humidity at the surface (dark areas), the lower figure shows that the internal mortar is largely dry (light areas).



(Surface representation of the measured values with MS-Excel™)



Trotec SDI sensors – technical data:

Climate sensors	TS 200 SDI	TS 220 SDI	TS 240 SDI
Display sensor 1	Temperature	Temperature	Temperature
Measuring range temperature	-20.0 °C ... +70.0 °C	-40.0 °C ... +140.0 °C, temporary ... +180 °C	-40.0 °C ... +100.0 °C
Resolution temperature	0.1 °C	0.1 °C	0.1 °C
Accuracy temperature	± 0.4 °C (-10 °C ... +50 °C), otherwise ± 0.5 °C	± 0.2 °C at 20 °C, ± 0.7 °C at -40 °C ... +140 °C	± 0.2 °C at 20 °C, ± 0.7 °C at -40 °C ... +100 °C
Units (Unit 1) for display sensor 1	°C, °F	°C, °F	°C, °F
Display sensor 2	relative humidity, absolute humidity, dew point	relative humidity, absolute humidity, dew point	relative humidity, absolute humidity, dew point
Measuring range rel. humidity	0.0 ... 98.0 % r.h.	0.0 ... 100.0 % r.H.	0.0 ... 98.0 % r.H.
Resolution rel. humidity	0.1 % r.h.	0.1 % r.H.	0.1 % r.H.
Accuracy rel. humidity	± 2 % r.h.	± 2 % at 0 ... 90 % r.H., ± 3 % at 90 ... 100 % r.H.	± 2 % r.H.
Units (Unit 2) for display sensor 2	% r.h., dp °C, dp °F, g / m ³	% r.h., dp °C, dp °F, g / m ³	% r.h., dp °C, dp °F, g / m ³
Connection	TC 30 SDI connecting cable	TC 30 SDI connecting cable	TC 30 SDI connecting cable
selectable options in the upper menu	MAX / MIN / HOLD / AVG	MAX / MIN / HOLD / AVG	MAX / MIN / HOLD / AVG
selectable options in the lower menu of the T2000	Sens, Unit 1, Unit 2, Time, Date, Auto Off, Cal 1, Cal 2	Sens, Unit 1, Unit 2, Time, Date, Auto Off, Cal 1, Cal 2	Sens, Unit 1, Unit 2, Time, Date, Auto Off, Cal 1, Cal 2
Operating conditions (Measurement electronics in the sensor handle)	0 °C ... +50 °C	0 °C ... +50 °C	0 °C ... +50 °C
Sensor tip specifications (without handle)	polycarbonate, L approx. 108 mm, ø 12 mm	stainless steel, L approx. 250 mm, ø 12 mm	stainless steel, L approx. 250 mm, ø 4 mm

Moisture sensors	TS 300 SDI (dielectric)	TS 350 SDI (microwave)
Display sensor 1	Material moisture, close to surface	Material moisture, depth measurement
Measuring range	0.0 ... 200.0 digit	0.0 ... 200.0 digit
Resolution	0.1 digit	0.1 digit
Display exceeding of measuring range	flashing "200.0"	flashing "200.0"
Display dropping below measuring range	static "0.0"	static "0.0"
Connection	TC 30 SDI connecting cable	TC 30 SDI connecting cable
selectable options in the upper menu	MAX / MIN / HOLD / AVG	MAX / MIN / HOLD / AVG
selectable options in the lower menu	Sens, Alarm, Time, Date, Auto Off, Cal 1	Sens, Time, Date, Auto Off
Alarm setting	Off (0) ... 200	Off (0) ... 200
Depth of penetration	20 - 40 mm	max. 300 mm

Anemometer sensor	TS 400 SDI	TS 420 SDI	TS 460 SDI
Display sensor 1	Airflow speed	Airflow speed	Airflow speed
Measuring range air flow	0.00 ... 20.00 m/s	0.00 ... 2.00 m/s	0.00 ... 20.00 m/s
Resolution air flow	0.01 m/s	0.01 m/s	0.01 m/s
Accuracy air flow*	± (0.2 m/s + 2 % of the measured value)	± (0.04 m/s + 1 % of the measured value)	± (0.2 m/s + 3 % of the measured value)
Display sensor 2	Temperature	Temperature	Temperature
Measuring range temperature	0 °C ... +50 °C	0 °C ... +50 °C	0 °C ... +50 °C
Resolution temperature	0.1 °C	0.1 °C	0.1 °C
Accuracy temperature	± 0.7 °C	± 0.3 °C	± 1 °C
Units (Unit 2) for display sensor 2	°C, °F	°C, °F	°C, °F
Connection	TC 30 SDI connecting cable	TC 30 SDI connecting cable	TC 30 SDI connecting cable
selectable options in the upper menu	MAX / MIN / HOLD / AVG	MAX / MIN / HOLD / AVG	MAX / MIN / HOLD / AVG
selectable options in the lower menu of the T2000	Sens, Unit 2, Time, Date, Auto Off	Sens, Unit 2, Time, Date, Auto Off	Sens, Unit 2, Time, Date, Auto Off
Operating conditions (Measurement electronics in the sensor handle)	0 °C ... +50 °C	0 °C ... +50 °C	0 °C ... +50 °C
Sensor tip specifications (without handle)	stainless steel, L approx. 210 mm, ø 6 mm	stainless steel, L approx. 210 mm, ø 6 mm	polycarbonate, L approx. 200 mm, ø 12 mm

* at 20 °C, 45 % r.H.

Pt100 sensors for temperature-measurement



With the Pt100 sensors, **minimum, maximum, average and "hold"** values can be displayed in the second display in addition to the real time temperature values of solids, bulk goods, liquids, gases or foodstuffs in T2000 measuring applications.

1 TS 110/150 – insertion temperature sensors

The class B sensor with a 150 mm long measuring tip (\varnothing 4 mm) is particularly suitable for temperature measurement in liquids (e.g. water) or bulk goods (e.g. sand).

Measuring range -40 °C ... +400 °C.

2 TS 130/150 – surface temperature sensor

The head of the 150 mm long measuring tip (\varnothing 4.5 mm) carries a spring-loaded sensor which picks up the surface temperature. The class B sensor is particularly suitable for use of temperature compensation in determining moisture content of wood. The shape allows accurate determination of the surface temperature.

Measuring range -50 °C ... +400 °C.

3 TS 120/150 and 4 TS 120/300 – immersion and flue gas temperature sensor

The robust TS 120 sensor is available with a tip length of 150 mm (\varnothing 3 mm) and 300 mm (\varnothing 3 mm). The precision class A sensor is particularly suitable for temperature measurement in liquids (e.g. water) or flue and exhaust gases of burner units.

Measuring range -40 °C ... +400 °C.

5 TS 125/300 – high-precision insertion temperature sensor

The class 1/10 DIN B sensor with a 300 mm long measuring tip (\varnothing 4 mm) is particularly suitable for high-precision temperature measurement in liquids (e.g. water) or bulk goods (e.g. sand).

Measuring range -40 °C ... +400 °C.

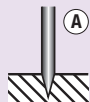
6 TS 140/150 – insertion temperature sensor

This class B sensor has a high grade steel handle and measuring tip (\varnothing 4 mm) as a special feature and is therefore particularly suitable for temperature measurement in foodstuffs.

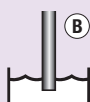
Measuring range -40 °C ... +400 °C.

TECHNICS Designs and possible applications

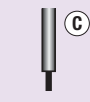
Sensor with probe tip (A) for measuring in plastic and soft media.



Immersion sensor (B) for measuring in liquids, powdery media, air and gases.



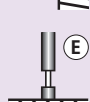
Open-air sensor (C) for measuring in air and gases.



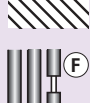
Blade sensors (D) for measuring in paper, card and textile stacks.



Surface sensor with flat measuring tip (E) for measuring effective heat conductors and on flat and planar surfaces.



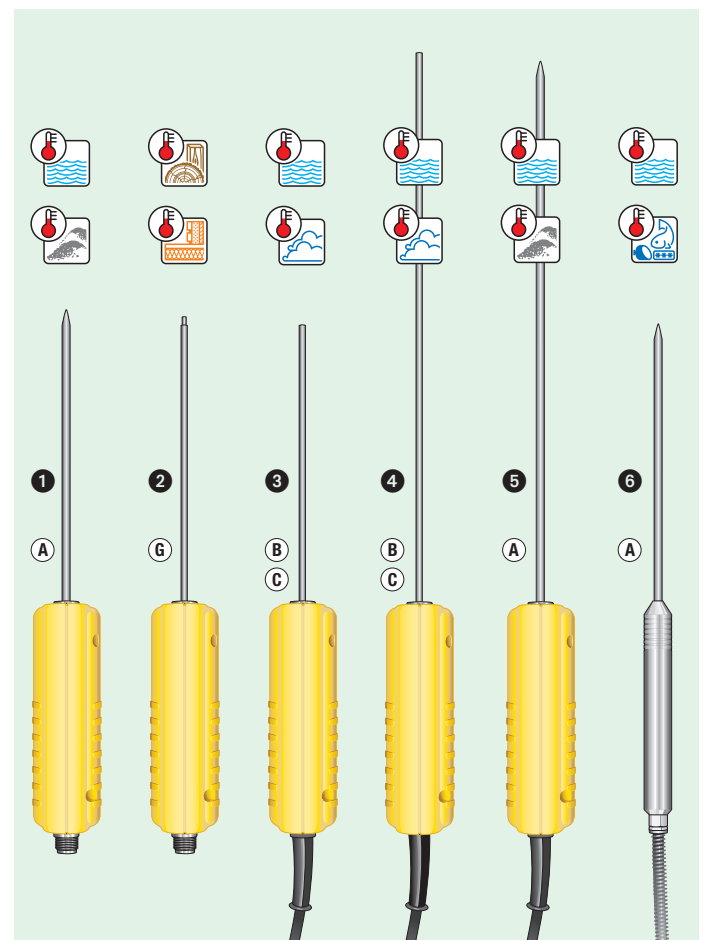
Sensors with heat-resistant measuring tip (F) for measurements in extremely high temperatures.



Surface sensor with sprung thermo-couple strip (G) for rapid measurements on non-planar surfaces.



When carrying out wood moisture measurement using the T2000 S it is possible to connect a Pt100 sensor to the measuring device for temperature compensation – e.g. for cold wood or measurements taken while wood is drying – in addition to the moisture measurement electrode. Further adjustments at the T2000 are not necessary. The measurement device automatically detects the connected temperature sensor and compensates the temperature difference accordingly.



Electrodes for measuring moisture content of wood and buildings:

Different types of passive electrode are used for determining the material or wood moisture and the humidity of mineral or porous building materials such as plaster or screed according to the resistance measuring method. The minimum, maximum, average and "hold" values can be displayed with these electrodes in addition to the real time values when measuring with the T2000 (S model only).

1 TS 4/200 and

2 TS 4/300 round electrodes

Very thin insertion electrodes (uninsulated, \varnothing 2 mm) for moisture measurement in building and insulating materials through joints or cross joints. Available in lengths 200 mm (TS 4/200) and 300 mm (TS 4/300).

3 TS 8/200 and

4 TS 8/300 round electrodes

Uninsulated insertion electrodes (\varnothing 4 mm) for measuring moisture on loose mounds such as wood wool or shavings. Available in lengths 200 mm (TS 8/200) and 300 mm (TS 8/300).

5 TS 12/200 and

6 TS 12/300 round electrodes

Insulated electrodes (\varnothing 4 mm) for specific moisture measurement in concealed component levels where the electrode shaft needs to be insulated. Absence of insulation would falsify the measuring result. The most frequent use is the determination of moisture distribution of multilayered wall or ceiling structures such as floating screeds, multilayered walls, wooden beam ceilings, hot roofs etc. Available in lengths 200 mm (TS 12/200) and 300 mm (TS 12/300).

7 TS 16/200 and

8 TS 16/300 flat electrodes

The area of application corresponds to the area of application of the insulated round electrodes TS 12/200 and TS 12/300. The advantage of the flat electrodes (1 mm flat) is that there are no holes in the surface and the electrodes can be inserted through the edging strip after removing the base. Available in the lengths 200 mm (TS 16/200) and 300 mm (TS 16/300).

9 TS 20/110 brush electrode

With 110 mm long brush head (\varnothing 7 mm) and insulated shaft. The area of application is the specific measurement of moisture in a homogeneous building material without using a contact mass. The connection to the goods to be measured is made by the brush head.

10 TS 50 insertion electrodes

The two-part insertion electrode TS 50 enables the variable distance when positioning the electrode pins. The area of application is the measurement of moisture in hard building materials such as concrete or screeds. The two hexagon union nuts also allow replacement of the following available electrode pins:

- 20 mm (max. penetration depth 14 mm)
- 30 mm (max. penetration depth 24 mm)
- 40 mm (max. penetration depth 34 mm)
- 60 mm (max. penetration depth 54 mm)

11 Layer depth electrodes TS 24/250

The area of application is the specific layer moisture measurement in homogeneous building materials using the contact mass. The material humidity can be determined according to the length up to a maximum depth of approx. 250 mm. The electrode is made up of the electrode tube and the electrode rod. The electrode tubes (\varnothing 8 mm) are insulated and equipped with a depth scale so that the measured value can be measured at the desired measuring depth.

12 TS 60 hand electrode

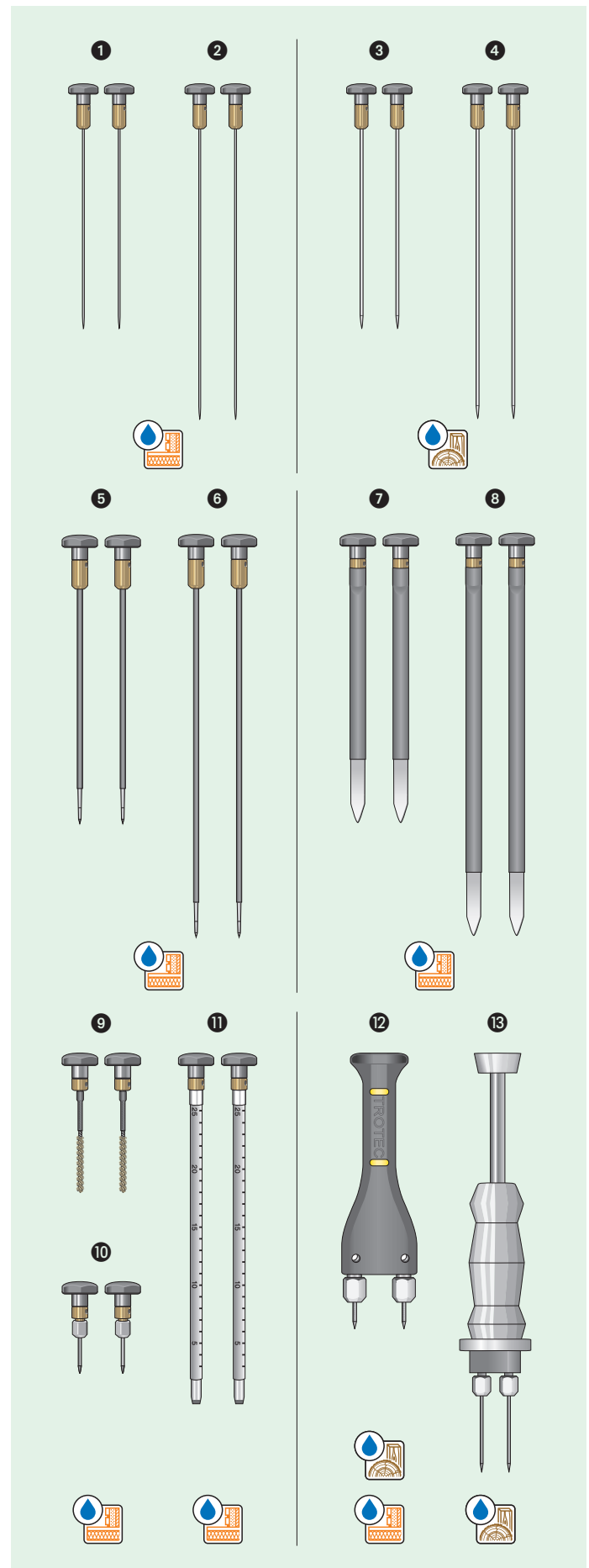
Unbreakable plastic handle with two hexagon union nuts in which electrode pins of the following lengths can be inserted.

- 20 mm (max. penetration depth 14 mm)
- 30 mm (max. penetration depth 24 mm)
- 40 mm (max. penetration depth 34 mm)
- 60 mm (max. penetration depth 54 mm)

Areas of application are measurement of moisture in cut timber or wooden board materials (e.g. chipboard or fibre boards) and measurement of moisture in soft building materials such as plaster or roughcast mortar.

13 TS 70 hammer electrode

With moving hammer handle for precision zone and depth measurement especially in woods with different moisture distribution, e.g. liquid nests using teflon-coated electrode pins. These are available in lengths of 45 and 60 mm.



MultiMeasure accessories:

MultiMeasure case 1

Compact case for measuring device, SDI sensors, electrodes, cables and accessories.

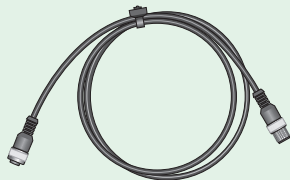


MultiMeasure case 2

If the microwave sensor TS 350 SDI is to be part of the delivery scope, we recommend you to use this bigger case.

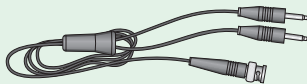
TC 30 SDI connecting cable

for connecting the SDI sensors to the T2000.



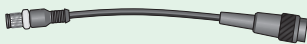
TC 20 connecting cable

for connecting Trotec electrodes for building and wood moisture measurement as well as other makes of sensors to the BNC connection of the T2000 (only T2000S).



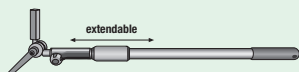
TC 10 adapter cable

for connecting OEM sensors to the 5-pin connector of the T2000.



Extension handle

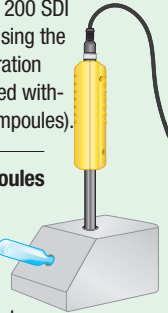
for the connection of SDI sensors. Ease of measurement for locations that are deep down or high up, and difficult to access.



High grade steel sinter filter for T 200, T 250 and TS 200 SDI. Replaceable protective cap for areas of application with heavy soiling.

Calibration block

for single-point calibration (r.h.) of the TS 200, TS 200 SDI and TS 220 SDI using the appropriate calibration ampoules (supplied without sensor and ampoules).



Calibration ampoules for T 200, TS 200 SDI and TS 220 SDI

available for 35, 50 and 80 % moisture.

Tefloncoated electrode pins

Available in lengths of 45 and 60 mm.



Spare electrode pins uninsulated.



Contact mass



Recommended accessories:

Pyrometer TP4

for fast measurement of surface temperature on walls, woods and surfaces.

Technical data:

Temperatur range -50 °C to +550 °C, accuracy $\pm 2\%$ of measured value (-20 °C to +550 °C), emissivity 0.95, optical resolution 8:1, laser class 2, reaction time 0.4 sec., auto switch off.



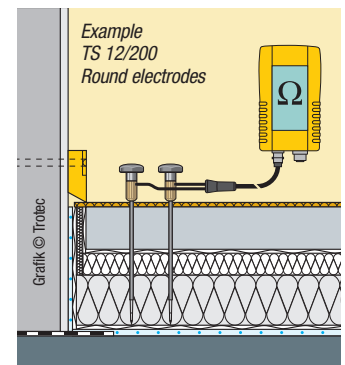
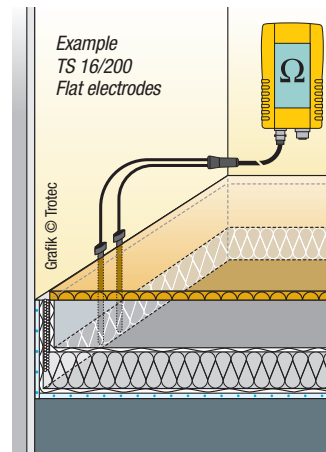
A measuring device made for real situations...

The T2000 has been developed for a wide range of uses, e.g. for quick, reliable building material moisture measurements.

Architects, building services managers and renovation and craft operations can use the T2000 to determine hidden humidity distribution, e.g. finished floors with

sound-proofed covering, multilayer insulated brickwork, insulated flat roofs or hidden beams in a half-timbered house.

The T2000 was developed with practicality firmly at the forefront and the practice handbook offers numerous tips and descriptions with clear instructions for determining different types of humidity problems.



With the T2000 the practical benefits are inbuilt – into the circuit board and on paper...

The T2000 not only allows you to determine the most diverse of measured variables simply and accurately, the focused combination of the different sensors and measurement processes but also enables time-saving investigation

and sound analysis even of complex problems.

To ensure that you profit directly from the most effective process

methodologies in different application areas we offer a comprehensive practice handbook for the T2000 user.

Along with current research results, physical principles with respect to the different measurement processes and actual descriptions of particular measurement applications, the T2000 practice handbook contains almost 70 pages of practical tips, examples of uses for combination measurements and actual procedural instructions for typical problems.

A well-written technical book with valuable practical expertise which you can put into practice in your measurement jobs.



Use our T2000 solutions kit for your individual application problems!

The T2000 with its combined sensors can be used for many jobs in industry and craft. From analysis of air inlet and outlet flows, build-up of condensation, insufficient cooling of machinery, porous seals, heat build-up, air humidity fluctuations, to materials that are too dry or too wet – for both preventive maintenance, and also for struc-

tural diagnostics and damage analysis, you can **undertake a very wide variety of tasks with just one instrument!**

We shall be happy to work with you to assemble the ideal kit for your purposes. Just call us, we will be pleased to advise you!

