Humidity- / Moisture Meters

PCE-555

Pocket thermohygrometer (Dew point)

The PCE-555 pocket thermohygrometer allows you to measure air humidity and temperature quickly and it can also calculate dew point and display wet bulb. Using this in the food industry you will be able to avoid the formation of fungus when transporting and storing food products. If used in the construction industry, you will be able to assess buildings for damp and prevent the formation of mildew by identifying condensation in walls.

- Easy to use
- The LCD shows both temperature and humidity
- Peak Hold function
- Takes MIN and MAX values
- Highly accurate
- Measures dew point and temperature

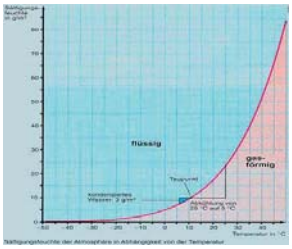
Technical specifications

Measurement range	0 to 100 % r.h. -30 to 100 °C
Resolution	0.01 % r.h. 0.01 °C
Accuracy	±2.0 % r.h. at 25 °C ±0.5 °C at 25 °C
Display	4.5 digit, dual display LCD
Battery	1 x 9V battery (PP3)
Dimensions	225 x 45 x 34 mm
Weight	200 g

Contents

PCE-555 thermohygrometer, carrying case, battery and user's manual

Model No.	Description
PCE-555	Thermohygrometer



PCE-310

Psychrometer (Dew point)

The PCE-310 psychrometer is an extraordinary cheap measuring instrument. It can measure environmental conditions (temperature and relative humidity) and can measure surface temperature with its external sensor which is included in the delivery. This psychrometer also offers you the ability to measure dew point and wet bulb.

- Measures relative humidity and temperature with an internal sensor and surface temperature of walls or food with its external sensor
- Dual backlight display (temperature and humidity)
- Measurement of dew point and wet bulb
- Calculates T1 - T2 differential
- Calibration kit
- MAX, MIN, Hold function
- Auto shut-off to save battery life
- ISO Certificate (optional)

Technical specifications

Measurement range	
Temperature (internal)	-20 to 50 °C
Relative Humidity	0 to 100 % r.h.
Temperature	-21.6 to 50 °C
Dew point	-78.7 to 50 °C
Temperature (external)	-20 to 70 °C
Resolution	
Temperature	0.1 °C
Relative humidity	0.1 %
Accuracy	
Temperature	±1 °C
Relative humidity	±3 %
Response time	approx. 60 s
Humidity sensor	endurance sensor
Memory	- - -
Interface	- - -
External temperature-sensor	cable of 1.1m, adjustable with 2.5 mm jack plug / dimensions with handle: 15 cm
Power	2 AAA batteries (1.5 V)
Operating conditions	-20 to 50 °C / 0 to 100 % r.h.
Dimensions	25 x 50 x 180 mm
Weight	130 g

Contents

PCE-310 psychrometer, external temperature sensor, 2 batteries and user's manual

Model No.	Description
PCE-310	Psychrometer with external temperature sensor

Optional accessories

PCE-310-TF	Replacement temperature sensor
CAL-SET-RF	Calibration bottles for 33 % or 75 % r.h.
CAL-RF	ISO Certificate

Optional calibration bottles

PCE-320

Psychrometer (Dew point), with data storage and type-K temperature probes

The PCE-320 psychrometer is the bigger brother to our PCE-310. This psychrometer can measure different environmental conditions, in addition to also being able to simultaneous display the surface temperature of walls and products with its external temperature sensor. It can also calculate dew point and wet bulb. The PCE-320 also has a memory to stores up to 99 measurements.

- Real time clock and date
- Memory stores up to 99 readings
- Measures relative humidity and temperature with an internal sensor and surface temperature of walls or food with its external sensor
- Determines dew point and wet bulb
- ISO Certificate (optional)

Technical specifications

Measurement range	
Temperature (internal)	-20 to 50 °C
Relative humidity	0 to 100 % r.h.
Temperature	-21.6 to 50 °C
Dew point temperature	-78.7 to 50 °C
Temperature (external)	-20 to 70 °C (depending on sensor)
Resolution	
Temperature	0.1 °C
Relative humidity	0.1 %
Accuracy	
Temperature	±0.6 °C
Relative humidity	±3 %
Response time	approx. 60 s
Humidity sensor	endurance sensor
Memory	stores up to 99 readings
External temperature-sensor	cable of 1.1 m, adjustable with a type K beat wire temperature / dimensions with handle: 15 cm
Power supply	4 AA batteries (1.5 V)
Operating temperature	-20 to 50 °C / 0 to 100 % r.h.
Dimensions	44 x 57 x 230 mm
Weight	200 g

Contents

PCE-320 psychrometer, external temperature sensor, 4 batteries and user's manual

Model No.	Description
PCE-320	Psychrometer with external temperature sensor, memory, RS-232

Optional accessories

CAL-SET-RF	Calibration bottles for 33 % or 75 % r.h.
CAL-RF	ISO Certificate

On page 3 you will find type-K temperature sensors

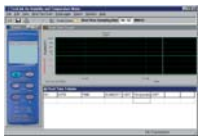
Optional calibration bottles

PCE-313 A

Thermohygrometer with memory and software, for professionals

In addition to relative humidity, this thermohygrometer also measures temperature. Its internal memory allows for storage of up to 16,000 readings individually or as a data logger. Once the data has been stored to memory, it can later be transfered to a PC with the help of the software. This thermohygrometer is extremely easy to use.

- Simultaneous display of temperature and relative humidity
- Sensor with 1.5 m cable
- Data logger with time and date
- Software to transfer and evaluate your data
- Auto shut-off (can be disabled)
- Data Hold
- Internal memory
- Max Hold
- ISO 9000 Certificate (optional)



Technical specifications

Measurement range	0 to 100 % r.h. - 20 to 60 °C
Accuracy	±2.5 % r.h. ±0.7 °C
Resolution	0.1 % r.h. 0.1 °C
Memory	16,000 values
Measurement quota	1 second or less
Min/Max/Peak-Hold	yes
Recalibration	optional calibration kits
Software	in English
Interface	RS-232
Display	3.5 digit LCD
Operating conditions	0 to 40 °C, < 80 % r.h.
Power	9V battery pack
Dimensions	sensor: 190 mm x 13 mm diameter device: 186 x 64 x 30 mm
Weight	320 g

Contents

PCE-313 A thermohygrometer, data cable, software, battery pack, carrying case and user's manual

Model No.	Description
PCE-313 A	Thermohygrometer with data logger
PCE-313 S	Thermohygrometer with data logger as the PCE-313 A, but with sintered filter for adverse conditions

Optional accessories

RS232-USB	RS-232 to USB Adaptor
CAL-RF	ISO Certificate
CAL-SET-RF	Calibration bottles for 33 % or 75 % r.h.
NET-300	Power supply (300 mA)

Optional calibration bottles

PCE-3000

Thermohygrometer with dew point calculation, memory and software

The PCE-3000 thermohygrometer is an accurate tool which can measure dew point, relative humidity and temperature. The most important feature of this thermohygrometer is its internal memory with which you can store up to 1000 readings. You can store the data individually or in form of a data logger, allowing for measurements to be taken over a period of time without the need to monitor the device. The thermohygrometer stores the measurements with date and hour. Using the software, the readings can be transfered to a comuter to be analysed.

- Simultaneously displays relative humidity and temperature
- Accurate to within ±2 % of relative humidity
- Dew point measurement
- Software and data cable included
- Memory stores up to 1000 readings
- RS-232 interface
- ISO 9000 Certificate (optional)

Technical specifications

Measurement range	0 to 100 % r.h. 0 to 50 °C
Accuracy	±2 % r.h. ±0.5 °C
Resolution	0.01 % r.h. 0.01 °C
Dew point	-25.3 to 48.9 °C
Memory	1000 readings
Timed measurement intervals	1, 2, 10, 30, 60, 600, 1800 or 3600 seconds
Min Max Peak Hold	yes
Recalibration	yes, in PCE Group
Software	in English
Interface	RS-232
Display	16mm dual display LCD
Power	9V battery pack
Sensor dimensions	200 x 15 mm
Measurer dimensions	203 x 76 x 38 mm
Weight	315 g

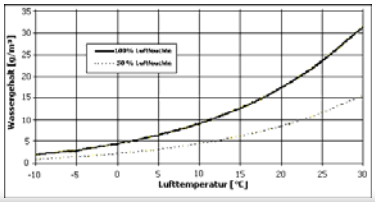
Contents

PCE-3000 thermohygrometer with sensor, software, RS-232 cable, battery, carrying case and user's manual

Model No.	Description
PCE-3000	Thermohygrometer with memory

Optional accessories

RS232-USB	RS-232 to USB Adaptor
CAL-RF	ISO Certificate



PCE-WM 1

Thermohygrometer to measure relative and absolute humidity [g/m³] and dew point

The PCE-WM 1 Thermohygrometer simultaneously measures relative humidity and temperature. It comes with an external sensor to measure surface temperature and it can calculate dew point and absolute humidity in g/m³. The two external probes, the thermohygrometer probe and the temperature probe, each have a 1m long spiral cable.

- Measures relative humidity and temperature
- Calculates absolute humidity in g/m³ and dew point
- Data Hold function maintains readings on the display
- External probe with spiral cable
- Auto shut-off function
- ISO Certificate (optional)

Technical specifications

Measurement range	10 to 95 % r.h. -20 to 80 °C
Accuracy	±2 % r.h. ±0.5 °C
Resolution	0.1 % r.h. 0.1 °C
Dew point	-25.3 to 48.9 °C
Memory	-
Timed measurement intervals	-
Min Max Peak Hold	yes
Recalibration	yes
Software	-
Interface	-
Display	3.5 digit LCD
Power	9V battery pack
Sensor dimensions	150 x 30 mm
Device dimensions	165 x 80 x 33 mm
Weight	380 g

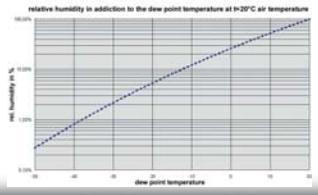
Contents

PCE-WM 1 thermohygrometer with combi probe and temperature probe, battery pack, carrying case and user's manual

Model No.	Description
PCE-WM 1	Thermohygrometer to measure dew point and temperature

Optional accessories

PCE-WM-KF	Spare combi probe (humidity + temp.)
CAL-RF	ISO Certificate



PCE-333

Compact moisture meter for wood

The wood moisture meter is very user friendly. You only need to press the electrode pins of the moisture meter into the surface of wood (if possible, it is better to measure a sample splinter or a fresh piece of wood) and read the absolute humidity of wood in the luminous band shown in percent. The measurement of wood or firewood is important to have good combustion. The firewood that has more than 20 % of absolute humidity has to much humidity and must be dried for about a year. You will also be able to use this moisture meter when you are purchasing wood. With this meter, you will be sure that you are buying wood and not water.

- The moisture meter is very user friendly and quick to measure the moisture levels in wood
- Solid enclosure and pocket-sized
- No recalibration necessary (conductivity principle with a curve preset in the unit)
- Illuminated band for readability

Technical specifications

Measurement range	wood: 6 to 44 % 0.2 to 2.0 %
Accuracy	wood: ±1.0 % other materials: ±0.05 %
Indicator	LCD
Pointer	integrated in the enclosure, electrode pin length: 8 mm
Type of wood	the unit is integrated the type of wood more currently in Europe
Operating temperature	0 to 40 °C
Operating relative humidity	0 to 85 % r.h.
Power	3 batteries (CR2032)
Enclosure	ABS plastic
Dimensions	130 x 40 x 25 mm
Weight	129 g

Contents

PCE-333 moisture meter, batteries and user's manual

Model No.	Description
PCE-333	Humidity Meter

PCE-WP 21

Moisture meter for construction materials

The PCE-WP 21 moisture meter is an instrument which allows you to measure moisture in concrete. The measurement procedure operates according to the dielectric constant principle or the principle of high frequency. To obtain a result it is only necessary to select the type of concrete and place the electrode pins on the surface. The electromagnetic radiation seeps through the surface up to 50 mm in depth. The reading will be that of the moisture content at 50 mm below the surface of the concrete.

- Measures moisture to a depth of 50 mm
- Very user friendly and displays the result quickly
- No preparation required before measuring
- LCD with battery life indicator

Technical specifications

Measurement range	1 to 8 % of absolute moisture
Accuracy	±0.7 %
Resolution	0.1 %
Measurement depth	approx. 50 mm
Display	3.5 digit LCD
Power	9 V battery pack
Dimensions	165 x 80 x 30 mm
Weight	500 g

Contents

PCE-WP 21 moisture meter, battery back, carrying case and user's manual

Model No.	Description
PCE-WP 21	Moisture Meter

PCE-WT1

Sawdust moisture meter

Sawdust moisture meter PCE-WT1 is a state-of-the-art electronic device for measuring moisture contents in sawdust, scobs, wood shavings, slivers and other finely crumbled wood waste. The moisture meter measures the resistance of a compressed sample of sawdust. This moisture meter is extremely easy to use.

- Measure moisture of sawdust
- Simple to use, quick result
- Measurement is done in two steps
- Heavy housing
- ISO Certificate (optional)

Technical specifications

Measurement range	8 to 50 % (absolute)
Resolution	0.1 %
Accuracy	±1 % of reading
Volume of chamber	120 cm^3
Pressure range	0.2 MPa
Temperature compensation	adjustable
Indicator	LCD
Power	9 V battery pack
Operating temperature	0 to +50 °C
Dimensions	300 x 215 x 65 mm
Weight	950 g

Contents

PCE-WT1 moisture meter, srewdriver, battery, carring case and user's manual

Model No.	Description
PCE-WT1	Moisture meter

Optional accessories

CAL-PCE-WT1	ISO Certificate

Serie PCE-MB

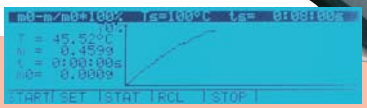
Balance to measure moisture

The PCE MB series Balance has been specially designed for the use in industry or in the laboratory. This balance provides a quick and accurate method to measure moisture content and dry weight analysis of a wide range of products and materials. The user's manure will provide you with advice and numerous practical examples. The two quartz halogen lamps (200W each) provide constant, even drying of the sample at a temperature pre-selected by the operator.
Only a small sample needs to be placed on the balance, then close the cover, press the button and read the result (content of humidity; dry content). This instrument is the perfect tool in determining moisture and dry content weight accurately. You will be able to determine the humidity of materials of a range of materials, such as plastic, wood pellets, pharmaceutical substances, tobacco, tea, cereals, etc.

Checking moisture and dry content can be done three different ways:
- Automatic: drying material until it has a constant weight
- Semi-automatic: drying stop when loss per unit of time goes below theoretical value
- Manual: adjusting the timer between 2 minutes and 9 hours and 59 minutes

The balance includes:
- RS-232 adaptor to transfer data to a PC
- External calibration function
- 230 V power supply

The image to the right shows the balance opened to allow the sample material to be placed inside and tested. The process which determines the moisture content begins once you close the cover and press the start button.



Technical specifications

Model	Weight range Max	Readability d	Repeatability	Pan size
PCE-MB 50	50 g 0 to 100 % absolute humidity 100 to 0 % dry content	0.001 g 0.01 %	0.01 g 0.02 %	Ø 90 mm
PCE-MB 100	100 g 0 to 100 % absolute humidity 100 to 0 % dry content	0.001 g 0.01 %	0.01 g 0.02 %	Ø 90 mm
PCE-MB 200	200 g 0 to 100 % absolute humidity 100 to 0 % dry content	0.001 g 0.01 %	0.01 g 0.02 %	Ø 90 mm
Tara range	Full			
Heating	2 x 200 W quartz halogen heaters			
Temperature range	+50 to +160 °C			
Drying time	2 min to 9 h 59 min (adjustable by 1 second increments)			
Drying modes	automatic, semi-automatic, manual			
Drying sequence	pre-selected on the display using a diagram			
Indication after drying	moisture [%] / dryness weight, weight before dryness [%] ATRO / date and time			
Memor<	160 (to allow user to produce drying curves for specific materials)			
Display	large display with multilingual menu			
Calibration	external calibration (with optional calibration weight)			
Interface	RS-232			
Operating conditions	+18 to +30 °C			
Power	230 V / 50 Hz			
Enclosure	die cast aluminium			
Ingress protection	IP 54			
Dimensions	235 x 245 x 260 mm			
Weight	approx. 8 kg			

Contents

PCE- MB series moisture analyser balance (one of the available models), 10 aluminium sample pans, power cord and user's manual

Model No.	Description
PCE-MB 50	Moisture Analyser Balance PCE-MB 50
PCE-MB 100	Moisture Analyser Balance PCE-MB 100
PCE-MB 200	Moisture Analyser Balance PCE-MB 200

Optional accessories

CAL-PCE-MB	ISO Certificate
PCE-SB	Software with RS-232 data cable
RS232-USB	RS-232 to USB Adaptor
PCE-BP1	Thermal printer with RS-232 data cable
PCE-MB-PS	Pack of 50 aluminium sample pans
PCE-MB-GF	Pack of 100 fibreglass

Thermal printer PCE-BP1

FMW, FMC, FME & FMD

Material moisture meters to determine the absolute moisture of materials such as wood, paper, building materials, etc.

Accurately measure the percentage of absolute moisture of all types of materials. The FMW-B and the FMW-T meters measure just by touching the surface, and will not damage to surface of the material. The FMC, FME and FMD6 models can be used with an array of optional sensors. All the units contain calibration curves for wood, building materials and paper. Once the material's corresponding curve has been selected, you will be able to determine the absolute moisture in a more accurate way that with conventional moisture meters. The FMD 6 has the possibility of being programmed with other curves and in addition to that, transmit to a computer the readings to allow the data to be analysed.

- Very user friendly
- High reproduceability (hybrid sensor)
- Highly accurate
- Choice of an array of sensors
- Auto shut-off after 10 min

FMW

FMC

FME

FMD 6

Technical specifications

Model	FMW-B/FMW-T	FMC	FME	FMD 6
Measurement without damaging materials	yes	-	-	-
Measurement with external sensor contact points	-	yes	yes	yes
Temperature measurement	-	-	yes, with optional sensor	yes, with optional sensor
Compensation of temperature	-	manual	yes, automatic with optional sensor	yes, automatic with optional sensor
Reference calibration curve AS/NZS1080.1	-	yes	yes	yes
Wood calibration curves for types of wood (4)	-	yes	-	-
Calibration curves for wood	yes	-	yes	yes
Calibration curves for building materials	yes (only for FMW-B)	yes	yes	yes
Calibration curves for paper	-	yes	yes	yes
Adjustable calibration curves	-	-	-	yes, 10 lines
Memory	50 values	-	50 values	2000 values
Statistic, data, hour	-	-	-	yes
Real time clock	-	-	-	yes
Software	-	-	-	yes
Measuring depth	FMW-B: 10 to 30 mm; FMW-T: 10 to 20 mm	depending on the sensor	depending on the sensor	depending on the sensor
Measurement range in %	2 to 30 (wood)	5 to 99 (wood)	5 to 99 (wood)	5 to 99 (wood)
	0 to 60 (building materials)	0 to 99 (building materials)	0 to 99 (building materials)	0 to 99 (building materials)
Resolution in %	0.1	0.1	0.1	0.1
Accuracy in %	0.5	0.3	0.2	0.2
Temperature range (material)	0 to 50 °C	0 to 50 °C	0 to 50 °C	0 to 50 °C
Battery life	yes	yes	yes	yes
Power	9 V battery pack	9 V battery pack	9 V battery pack	3 batteries (1.5 V)
Dimensions	180 x 80 x 35 mm	160 x 80 x 30 mm	160 x 80 x 30 mm	190 x 100 x 34 mm
Weight	260 g	260 g	260 g	300 g
MPA approval	no	no	yes	yes

Contents

Absolute moisture meter (according to the model ordered), user's manual

Model No.	Description
FMW-B	Wood and building material moisture meter (without damaging materials), sensor on the back side
FMW-T	Wood and building material moisture meter (without damaging materials), sensor on the front side

For the FMC, FME and FMD moisture meters you should oder optional sensors corresponding to the model of meter you have:

FMC	Wood and building materials moisture meters with manual temperature compensation
FME	Wood and building material moisture meters with automatic temperature compensation
FMD 6	Material moisture meters with automatic temperature compensation and software included

Optional accessories for the FMC, FME, FMD6 Moisture meters

HEHB	Hand probe for measuring wood and building moisture
REHB	Hammer probe for measuring wood moisture (for good depth measurement)
ENS-30	Non-insulated measuring pins for hand and hammer probes. Suitable for measuring moisture to a maximum thickness of 30mm (10 units)
ENS-60	Insulated measuring pins for hammer probe. Suitable for measuring moisture to a maximum depth of 60mm (10 units)
TFK	Temperature sensor for measuring material temperature (only for FME and FMD)

Hand probe

Hammer probe

Non-insulated measuring pins

Insulated measuring pins (60mm)

Temperature probe

The universal sensor handle will connect for the following electrodes.

UFH	Sensor handle with cable for connecting sensors to moisture meters (for sensors in the following list)
BH-OFF	Sensor for surfaces (for all material surfaces, without damaging materials)
ESF-325	Thrust sensor of 325 mm (for granulated, wood, pellets, sand, etc)
NF4-15	1.5mm sensor with 4 pins (for cork, rubber, fabrics, etc)
NF4-17	17mm sensor with 4 pins (for building materials, wood, etc)
NF2-100	100mm sensor with (for insulating material, fibreglass, fruits, etc)
SNF-175	175 + 75mm sensor with 2 pins; the first 175mm are insulated (stacks of coffee, pellets, etc)
BH-RF	Sensor with rollers for moving surfaces (for rolls of paper, fabrics, etc)

Sensor handle

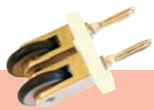
Sensor for surfaces

325mm sensor

Sensor with 4 pins (1.5 or 17mm)

Sensor with 2 pins (175 + 75mm)

Sensor with rollers



Special sensors

BH-KF	Sensor with case encased in steel (for stacks of materials, such as sawdust, cereals, etc); you must purchase the cable as an optional component
BH-KF-K	Cable for the case sensor
BFS	Sensor kit for concrete (for concrete and road surfaces)
BFS-10	Set of pins for the concrete sensor (10 units)

Sensor with case

Sensor kit for concrete

Applications for the special sensors:

Sensor with case

The steel encased case sensor is filled with the material to be measured. This sensor is also good to measure stacks of pellets, shavings, granulated materials, etc.

Concrete measurement kit

The concrete measurement kit measures at a maximum depth 10cm. The probes are introduced into previously made holes.