



# MMS3



## Complete Moisture Measurement System with Wireless Capability

Now, with wireless capability, the Protimeter MMS3 represents the latest in moisture measurement technology. Its ergonomic 4-in-1 design allows for fast and accurate full building moisture diagnostics both on and below the surface, from new building construction to refurbishing projects in existing buildings. Also, with built-in hygrometric capabilities and infrared (IR) laser thermometer, the MMS3 also assesses indoor air quality conditions.



### Benefits

- Fast responding Hygrometer speeds up building surveys
- Replaceable humidity and temperature sensor
- No need to plug in multiple accessories
- Non-invasive measurement not adversely affected by surface moisture
- Highly accurate

### Applications

- Fire and flood damage restoration
- Concrete floor moisture measurement
- Home inspection
- Building survey
- Moisture mapping

### Features

- Pin moisture measurement with built-in calibration check
- Improved non-invasive moisture measurement with sensitivity mode feature and simple field calibration
- Non-contact surface temperature measurement with Infrared (IR) laser pointer
- Fast response
- Psychrometric calculations
- Manual and automatic data logging up to 10,000 records
- File viewer mode to view logged data
- Data reporting and processing through Protimeter PC software
- Live data stream over BLE, data log into file or embedded into an image in Protimeter app
- Web interface to view the logged data
- Easy-to-use interface with color display and multi-language capability
- Firmware upgradeable

# Amphenol

Advanced Sensors



Android app



iOS app

# MMS3 Measurement System

## Four-In-One Moisture Measurement System

The Protimeter MMS3 measures moisture in wood and wood floors, drywall, concrete and concrete block, stucco, plaster, masonry and other building materials.

- 1. Measure** (pin mode) diagnoses the extent of moisture intrusion for damage assessment and monitor drying out of building structures.
  - Use built-in pin or plug in the heavy duty moisture probe for measuring in hard-to-reach areas
  - Use deep wall pin-type probes to measure moisture in walls, wall cavity insulation, sub and surface structures
  - Use accessories, such as hammer probes, to measure at depth
- 2. Search** (non-invasive mode) behind ceramic tile, fine finishes, water stains, tile and vinyl floor coverings, wood, drywall, plaster, masonry, concrete and concrete block.
  - Non-invasive pinless radio frequency (RF) finds moisture from ¾" (19mm) to 5" (120mm) below the surface
  - Search mode not adversely affected by surface moisture
- 3. Hygrometry** measures or monitors buildings for adequate ventilation affecting indoor air quality and moisture problems. Measures relative humidity and temperature, dew point and surface temperature, surface proximity to dew point (condensation) and grains per pound, as well as multiple psychrometric calculations
  - Allows measurement of equipment such as dehumidifiers
  - Measures equilibrium relative humidity in concrete floors using the in situ probe method
  - Use to detect conditions for mold and fungus growth, that can lead to unhealthy living conditions
- 4. Surface Temperature (IR)** checks surface temperature, utilizing laser pointer, calculates proximity to dew point.

Measure



Search



Hygrometry



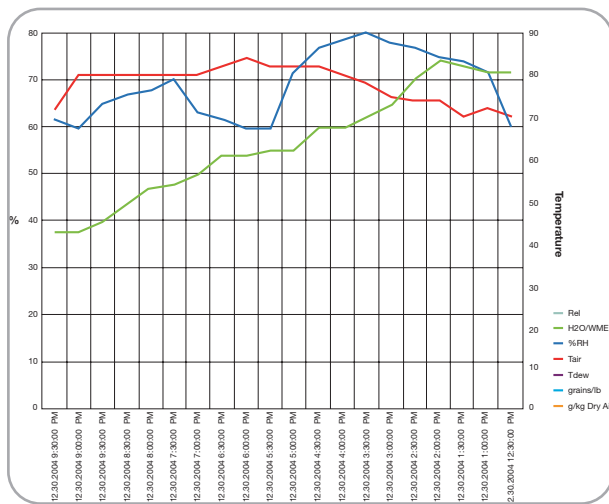
Infrared



## Data Storage Functions

When concise and accurate environmental readings need to be reported, the MMS3 gets the job done. The ability to record readings instantly at the push of a button, and to continuously log when left on site, makes this instrument ideal for many applications including:

- Building survey
- Fire and flood restoration
- Concrete floor moisture measurement
- Indoor air quality
- Environmental health



## Humidity Probe Options

MMS3 may be used with three styles of interchangeable humidity probe, the Hygrostick, the Quikstick and the Quikstick ST. The Hygrostick (grey POL4750) can be used for high moisture applications such as concrete measurement. Quikstick (black POL8751) is a general purpose, fast-responding full range sensor.



Quikstick ST POL8751, standard with all MMS3 kits and with the same performance as the standard Quikstick. A Quikstick ST can remain connected to the MMS3 while using the pins.



### Download Free App

This app is available for free on both the Apple app store and the Google play store. Once the app is installed you will be able to connect to the MMS3 and store reading data along with photos.



Hygrostick part number POL4750, for high moisture applications.

## Concrete Floor Moisture Measurement

MMS3 can be used for measuring equilibrium relative humidity directly in concrete slabs. Protimeter pioneered this more accurate method, which includes drilling holes in the concrete, inserting a humidity sleeve and measuring the equilibrium humidity in the concrete. If excessive moisture is found, simply replace the sleeve cap for future retesting. This method also permits normal construction without disturbing the test surface.

A small hole is drilled in the concrete. Next, a humidity sleeve is inserted and capped flush with the floor. The relative humidity of the air in the test hole is now at the same moisture level as the concrete around it. Flooring product manufacturers normally recommend RH readings between 75% and 85% depending on the permeability of the product being installed.

Readings from multiple Hygrosticks can be taken and recorded with ease. Humidity readings can be taken with the use of humidity sleeves or humidity box. Hygrosticks, not Humisticks, should be used for this test.

# MMS3 Specifications

## Operating Temperature

32°F to 122°F (0°C to 50°C)

## Batteries (Included)

2 x AA Alkaline Batteries ~ 2700mAh

## Gross Weight

10.9 oz (309 g) – Instrument only with batteries

## Display

- 2.4" TFT Color Display
- 320 x 240 Resolution
- Backlight with adjustable brightness
- Outdoor Mode

## Moisture Measurement Range

- Pin (%WME): 6% to 100% (Readings over 30% are relative.)
- Non-Invasive (RF): 60 to 999 Relative, up to 3/4" (19 mm) deep in standard mode and up to 5" (12 cm) deep in sensitivity mode (varies with material under test.)

## Maximum Needle Depth

0.4 in (10 mm)

## Plug-In Surface Temperature Probe

(BLD5808)

- Range: 32°F to 158°F (0°C to 70°C)
- Accuracy: ±1.3°F (±0.7°C) @ 77°F (±25°C)

## Infrared Surface Temperature Range

- LASER Pointer: 12:1 (D:S) Ratio
- Range: -4°F to 176°F (-20°C to 80°C)
- Accuracy: ±3.6°F (±2°C)

## Hygrostick Data (Nominal)

30% to 40% (±3%) RH at 68°F (20°C)  
 41% to 98% (±2%) RH at 68°F (20°C)  
 32°F to 122°F (-10°C to 50°C) ±0.6°F (±0.3°C)

## Quikstick and Quikstick ST Data (Nominal)

### Quikstick (Used for Ambient Readings)

0% to 10% RH, ±3% RH at 77°F (25°C)  
 10% to 70% RH, ±2% RH at 77°F (25°C)  
 70% to 99% (non-condensing) RH, ±3% RH at 77°F (25°C)  
**Temperature range:** 32°F to 122°F (0°C to 50°C) ±0.69°F (±0.5°C)

**Nominal response:** 30% to 90% and back to 30% RH in 45 seconds @ 68°F (20°C)

## Data Storage

Manual and Automatic Logging: Store up to 10,000 results in the device with date and timestamp from all instrument functions.

Store results of interest in cloud from live data stream on the Protimeter app into a file or embed into an image to be accessed through phone/tablet and/or web interface.

## Regulatory Compliance

- CE
- RoHS
- ETL
- UKCA

## Warranty

Standard Limited Warranty for 24-months on mechanical or manufacturer defects. Does not include wearing of parts or accessories, which have a 12-month warranty for normal use.

## Options

| MMS3 Description   | Part Number | MMS Instrument | Quikstick ST | HD MC Probe | Hygrostick | Hygro/Quik Ext Lead | HD Hammer Electrode | 4x Hammer Pips | 5" Deep Wall Probes (127 mm) | 14" Deep Wall Probes (355 mm) | Surface Temp Sensor | Quik Start Guide | Pre-formed Case | Hard Carry Case |
|--|-------------|----------------|--------------|-------------|------------|---------------------|---------------------|----------------|------------------------------|-------------------------------|---------------------|------------------|-----------------|-----------------|
| <b>Part Number</b>   |             | POL9800        | POL8751      | BLD5060     | POL4750    | BLD5802             | BLD5055             | BLD06297       | BLD5018                      | BLD5019                       | BLD5808             | 711-194          | 441-1025        | BLD5915         |
| Basic (Instrument in pouch)  | BLD9800     | X              | X            | X           |            |                     |                     |                |                              |                               |                     | X                | X               |                 |
| Basic Survey (Instrument and primary accessories in pouch)                             | BLD9800-S   | X              | X            | X           | X          | X                   |                     |                | X                            |                               |                     | X                | X               |                 |
| Standard Kit (Instrument in hard case)   | BLD9800-C   | X              | X            | X           |            |                     |                     |                |                              |                               |                     | X                |                 | X               |
| Survey Kit (Instrument and primary accessories in hard case)                           | BLD9800-C-S | X              | X            | X           | X          | X                   |                     |                | X                            |                               | X                   | X                |                 | X               |
| Restoration Kit (Instrument, primary accessories and HD Hammer Electrode in hard case) | BLD9800-C-R | X              | X            | X           |            |                     | X                   | X              | X                            |                               |                     | X                |                 | X               |

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