PROTIMETER

Protimeter Flooring Kits

Complete, Accurate Moisture Measurement in Concrete Floor Slabs

For use with ASTM Standard F2170

www.moistureinconcrete.com

Choose Between 2 Flooring Kits

The Protimeter MMS2 and HygroMaster 2 Flooring Kits allow flooring inspectors to take moisture measurements in concrete floor slabs using the relative humidity in-situ probe method. The in-situ humidity test is being adopted worldwide and is considered the most accurate way for contractors and inspectors to ensure that moisture levels in concrete slabs meet the recommended requirements prior to installing a floor covering.

Moisture levels in floor slabs are critical to understand, as excessive moisture can lead to catastrophic and expensive floor failures. Global standards are in place, such as ASTM F2170.

Measurements Include:

- In-situ relative humidity and temperature -Required for ASTM F2170 standard
- Relative humidity and temperature in the ambient conditions - Required for ASTM F2170 standard
- Surface temperature Required for ASTM F2170 standard
- Data logging
- Non-invasive instant moisture evaluation used prior to in-situ RH moisture test (MMS2 only)
- Pin type moisture measurement, evaluating wood floor materials (MMS2 only)



HygroMaster 2 BLD7750-FL





MMS2 | All-in-One Hygrometer and Moisture Meter Hygromaster 2 | Simple to Use Thermo-Hygrometer

The Protimeter MMS2 and HygroMaster 2 are the industry's most advanced all-in-one moisture meters.

With its ergonomic, 4-in-1 design, the MMS2 allows for one-handed operation to measure moisture on and below the surface, as well as in ambient air and humidity and in concrete floor slabs. The MMS2 also incorporates instant moisture measurement using pin and non-invasive techniques to provide accurate readings in wooden floors and reference reading in concrete floor slabs.

The Hygromaster 2 is the latest in handheld hygrometry technology. It features outstanding performance with a simple and easy to use interface with multiple Psychometric calculations and a non-contact surface IR temperature probe.

Both meters feature a non-contact infrared (IR) thermometer to measure surface temperature and calculate dewpoint.

Features

- Pin moisture measurement (MMS2 only)
- Non-invasive moisture measurement (MMS2 only)
- Ambient relative humidity and temperature measurement
- Equilibrium humidity measurement in concrete floors
- Psychrometric calculations
- Laser pointer surface non-contact temperature measurement
- Data logging
- Firmware upgradable

Benefits

- Easy-to-use with simple user interface
- One instrument with all floor moisture testing capabilities
- Durable construction with a 2 year warranty
- Free technical support



Flooring Kits Components

20 Adjustable Humidity Sleeves

For insertion into the concrete slabs allowing measurement in slabs at 40% depth of concrete. Sleeves adjustable from 4" (101mm) to 6" (153mm) slab thicknesses. Patent Pending. Part Number - BLD4650-20

Carbide-Tipped Spiral Masonry 3/4" (19mm) Drill Bit and Drill Stop

Drill the correct depth holes into the concrete slab.

Part Number - Drill - BLD34DR, Drill stop collar - BLD34DRCLR Part Number - Allen key for stop collar - BLD34DRCLR-K

Wire Cleaning Brush

Clean out the drilled hole. Recommend using in conjunction with a properly filtered industrial grade vacuum.

Part Number - BLD4653

5 Protimeter Mini Hygrostick Probes

These small probes are placed into the humidity sleeve that is inserted into the concrete slab and allow you to measure the %RH and temperature to the exact standard. Protimeter's Mini Hygrostick sensor is specifically designed for the harsh environments found in concrete. Protimeter's EMD sensor performance and reliability is unmatched in the market with over 20 years of use in this application. Comes complete with NIST Traceable Calibration Certificate.

Part Number - BLD4755-5

Mini Hygrostick Insertion and Extraction Tool

For placing and removing the sensors in and out of the sleeves. Part Number - BLD4755-EX

Mini Hygrostick Extension Lead

Connects the MMS2 meter to the mini Hygrostick. Part Number - BLD5806









Flooring Kits Components

Salts Calibration Test Bottle and Adapter

Allows users to check the humidity probe calibration at 75% RH.

Part Number - BLD4790 Adapter Part Number - BLD4790-AD

Data Cable and Software

Store up to 8,000 readings with time-and-date stamping from all instrument functions with the push of a button, making record keeping easy and simple.

Part Number - BLD7758





Rugged Carrying Case

Secures your flooring kit in one durable, easy to carry case.

Part Number - BLD5916 (replacement case only)



MMS2 Specifications

Moisture Measurement Range

- Pin (% WME) 8% to 99, readings over 30% are relative
- Non-invasive (RF) up to 3/4 in (19 mm) deep, 60 to 1000 (relative)

IR Surface Temperature Probe Range

15°F to 120°F (-10°C to 50°C)

Infrared Surface Temperature Range

- IR Based With 12:1 (D:S) Ratio.
- Range -4°F to 176°F (-20°C to 80°C)
- Accuracy ±3.6°F (±2°C)

Mini Hygrostick Data (Nominal)

- Package of 5 included
- 30% to 40% RH (±3% RH) at 68°F (20°C)
- 41% to 98% RH (±2%) at 68°F (20°C)
- Range 32°F to 122°F (0°C to 50°C) ±0.6°F (±0.3°C)

Quikstick (Used for Ambient Readings)

- 0% to 10% RH, ±3% RH at 68°F (20°C)
- 11% to 90% RH, ±2% RH at 68°F (20°C)
- 91% to 100% RH, ±3% RH at 68°F (20°C)
- Range 32°F to 122°F (0°C to 50°C) ±0.6°F (±0.3°C)
- Nominal response 30% to 90% and back to 30% RH in 45 seconds @ 68°F (20°C)

Data Storage

 Store up to 8,000 results with time-and-date stamping from all instrument functions with the push of a button

Gross Weight

• 10 oz. (283 gms)

Dimensions (LxWxH)

7.5 in x 3.7 in x 2.2 in (190.5 mm x 94 mm x 56 mm)

Maximum Needle Depth

• 0.4 in (10 mm)

Display

Color LCD

Batteries (Included)

• 1 x 9V

Warranty

24 months on mechanical or manufacturing defects. Does not include wearing of parts or accessories.

For more details, including a demonstration video, go to www.mms2meter.com.



HygroMaster 2 Specifications

Gross Weight

• 8 oz (277 gms)

Dimensions (LxWxH)

• 7 in x 3.2 in x 1.5 in (178 mm x 81 mm x 38 mm)

Display

• 2" TFT color display, 176 x 220, 256K color

Batteries (Included)

• 9V Alkaline

Mini Hygrostick Data (Nominal)

- Package of 5 included
- 30% to 40% RH (±3% RH) at 68°F (20°C)
- 41% to 98% RH (±2%) at 68°F (20°C)
- Range 32°F to 122°F (0°C to 50°C) ±0.6°F (±0.3°C)

Plug in Temperature Probe Surface Temperature Probe

- Range 32°F to 158°F (0°C to 70°C)
- Accuracy at 77°F (25°C) +/- 1.3°F (0.7°C)

Infrared Surface Temperature Range

- IR Based With 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% RH (±3% RH) at 68°F (20°C)
- 41% to 98% RH (±2%) at 68°F (20°C)
- Range 32°F to 122°F (0°C to 50°C) ±0.6°F (±0.3°C)

QuikStick and QuikStick ST Data (Nominal)

- 0% to 10% RH, ±3% RH at 68°F (20°C)
- 10% to 90% RH, ±2% RH at 68°F (20°C)
- 90% to 100% RH, ±3% RH at 68°F (20°C)
- Range 32°F to 122°F (0°C to 50°C) ±0.6°F (±0.3°C)
- Nominal response 30% to 90% and back to 30% RH in 45 seconds @ 68°F (20°C)

Data Storage

• Store up to 8,000 results with time-and-date stamping from all instrument functions with the push of a button. Store 6,100 results with automatic logging.

Warranty

24 months on mechanical or manufacturing defects. Does not include wearing of parts or accessories.



Simple Steps to Confident Moisture Assurance







- Rapidly evaluate the floor moisture level using the MMS2, or another non-invasive moisture meter
- Select your in-situ humidity test points
- Drill holes to 40% of the depth of the concrete
- Clean out the drilled holes and insert the adjustable sleeve at the correct depth for the slab
- Insert the Protimeter mini Hygrostick using the insertion tool
- Cap the sleeve and wait for moisture equilibrium. See local standards for recommended soak time
- Measure and record the relative humidity and temperature
- Remove the mini Hygrostick for reuse

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