

# Protimeter Moisture Measurement System MMS

## BLD5800

### *The complete dampness diagnosis instrument for the building environment*

The Protimeter Moisture Measurement System (MMS) is a new product for measuring moisture conditions in buildings to aid understanding of how and why damp conditions may prevail. It combines moisture meter and hygrometer functionality in one state-of-the-art instrument for a complete moisture surveying capability.



Dampness in buildings can lead to decay and deterioration of materials and unhealthy living environments, problems that can be expensive to resolve if not identified correctly and addressed at an early stage. The Protimeter MMS is used to identify and diagnose dampness before problems occur:

#### **Complete Measurement Capability**

The Protimeter Moisture Measurement System (MMS) enables the user to measure moisture conditions in buildings from various perspectives to aid understanding of how and why damp conditions may prevail. It combines moisture meter and hygrometer functionality in one state-of-the-art instrument for a complete moisture surveying capability.

#### **Use the Protimeter MMS to:**

- Identify presence of moisture on and below surfaces
- Quantify Wood Moisture Equivalent levels of materials
- Measure relative humidity and temperature of air.
- Confirm the occurrence of condensation on surfaces

The Protimeter MMS is the complete instrument for measuring moisture levels in materials and for diagnosing the cause of dampness in buildings. The user switches between moisture meter, hygrometer and Condensator modes to measure moisture in materials and environments as required.

The MMS can be used systematically to :

- (i) Identify the presence of moisture on and below surfaces,
- (ii) Measure the **relative humidity** and temperature of air in built environments and
- (iii) Confirm the presence - or otherwise - of condensation on surfaces.

The instrument is compact and simple to use, having a large liquid crystal display and a cluster of just four buttons for selecting the operational modes. It is supplied in a sturdy carry case together with the necessary accessories for a complete moisture survey. The following accessories are included:

#### **Protimeter MMS Kit**

BLD5800

Protimeter MMS Kit		BLD5800		
Comprising :	Protimeter MMS Instrument	POL5800	Surface Temp Sensor (direct contact)	BLD5804
	Hygrostick hygrometer probe	BLD4750	Carry Case	POU5800
	Hygrostick Extension lead	BLD5802	Calibration check device (for %WME)	BLD5086
	Moisture Probe	BLD5060	Instruction manual	INS5800
	Deep Wall Probes (length 140mm)	BLD5018		

#### **Ergonomic Design**

The Protimeter MMS is simple to set up and use. Operational modes are selected at the touch of a button and information is presented on a large, back lit liquid crystal display. The radio frequency sensor has been positioned so that a large number of moisture readings can be taken quickly and tirelessly and the Hygrostick@ hygrometer sensors react quickly to changes in ambient temperature and relative humidity.

Using the Protimeter MMS moisture meter and hygrometer modes in combination gives the practitioner a complete diagnostic capability. Search and Measure moisture meter modes distinguish sub-surface moisture from surface moisture in materials and the Condensator mode confirms the presence -or otherwise -of condensation on surfaces.



**Moisture Meter -Search Mode** The Protimeter MMS has a radio frequency moisture sensor located in a bulge at the top of the instrument. This is held against a surface to obtain a relative qualitative indication of the moisture level within the material / beneath the surface. In this way the user can establish if there are high moisture levels within material that warrant more detailed investigation. This technique is fast and does not mark or damage surfaces.



**Moisture Meter -Measure Mode** By pushing two electrode needles into materials, a precise moisture measurement can be obtained. Actual moisture content values for wood and wood moisture equivalent (%WME) values for masonry are displayed together with text messages that tell the user if the material is in a dry, borderline or damp condition. If high moisture readings have been detected beneath the surface in Search mode, the Deep Wall Probes are used to quantify the moisture levels at varying depths.

**Hygrometer Mode** When the Hygrostick hygrometer probe is connected to the instrument the MMS can be used as a hygrometer to measure relative humidity, ambient temperature and dew point. In this way the moisture condition of domestic and commercial environments can be assessed and compared. Hygrosticks can also be embedded in solid floors and walls to obtain a material's equilibrium relative humidity (ERH) value. This is a very effective technique for determining if any solid material is in a dry or damp condition.



**Condensator Mode** A specialised hygrometer mode for assessing the risk -or confirming the presence -of condensation on surfaces. When the Surface Temperature Sensor is connected and held against a surface, the MMS displays the difference between the surface's temperature and the dew point, together with text messages that confirm whether or not condensation is occurring. An optional infra red remote surface temperature sensor can also be used for rapid condensation risk analysis.

## Technical Specification

### Dimensions & Weights:

Protimeter MMS Kit (BLD5800):	230 x 190 x 90mm, 1.2kg
Protimeter MMS instrument (POL5800):	180 x 70 x 45mm (max. values), 300g
Hygrostick probe (BLD4750):	length 50mm, Ø 8mm. Optimal clearance hole Ø 13mm (when used with compression sleeve to measure ERH in solid material)

### Power: x2 LR6 batteries (supplied)

### Measurement Ranges:

#### Moisture Meter Search mode :

0- 1000 relative scale, nominal depth of measurement up to 10mm tolerance  $\pm 10$

#### Moisture Meter Measure mode:

6- 29 % WME, 30- 100 relative scale in saturated material

#### Hygrostick probe:

Measurement range 30 to 98 % RH, 0 -50 °C

Calibration range (i) 35 to 95 %rh, nom. tolerance  $\pm 1.5$  % RH @ 20 °C, 50 % RH

(ii) 5 to 40 °C, nom. tolerance  $\pm 0.5$  °C

Surface temperature range -20 to 50 °C

### Accessories

Code	Product Name	Description
BLD5010	Telescopic Hammer Electrode	Provides comparable moisture readings in timber, quickly and effortlessly
BLD5000	Hammer Electrode	Moisture readings at depth in timber
BLD5020	Deep Wall Probes - 23cm length.	
BLD4900	On-Site Salts Analysis Kit.	Assesses chloride and nitrate levels
BLD4750B	Hygrostick Probe - 4 Point Calibration	Measures RH and ambient temperature
BLD4750C	Hygrostick Probe (5-Pack)	Measures RH and ambient temperature