

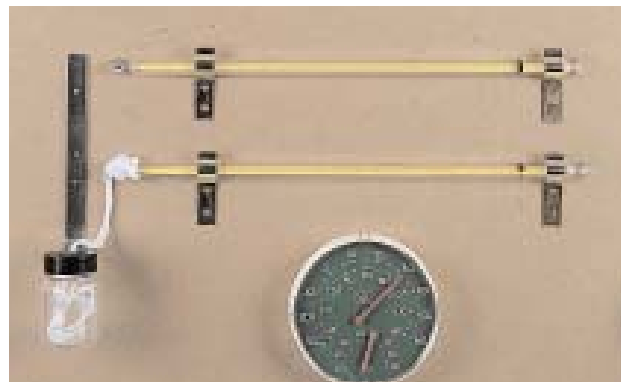
# 06 HYGROMETERS



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### 1. KEW PATTERN HYGROMETER

This is a high quality hygrometer using accurate stem-divided, mercury-filled thermometers which are made with consideration to BMO patterns. The thermometers are fitted to laminated plastic mounts which have been engraved with thermometer divisions. The mounts themselves are then fitted onto a laminated plastic back-plate, moulded from high strength, 'warp-resistant' plastic.

A metal bracket attached to the back plate, supports the water reservoir from which a cotton wick runs and is threaded around a circle of muslin covering the bulb of one of

the thermometers. The bulb is kept constantly wet by capillary action.

### 2. SIMPLE PATTERN HYGROMETER

This instrument is based upon the design of the Kew Pattern Hygrometer but does not have the laminated plastic back-plate. The thermometers, mounts, water reservoir, accuracy and principles of operation are the same.

### 3. SHEATHED PATTERN HYGROMETER

This instrument consists of two sheathed thermometers, manufactured to BS 692, together with supporting brackets and an arrangement of water reservoir, wick and muslin to keep one bulb constantly wet.

The inner divided tube is supported in its sheath by a rubber ring at the top and by fusing the two together between the bulb and the lowest graduation.

For information on relative humidity calculation tables, please contact Casella CEL.

For information on the temperature and humidity measurement using Casella CEL Thermohygrographs and Whirling Hygrometer, contact Casella CEL.

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**CASELLA**  
CEL

Instrumentation  
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Specification	KEW PATTERN	SIMPLE PATTERN	SHEATHED PATTERN
Accuracy (fitted into a Stevenson Screen) (Dependent on temperature and wet bulb depression or surrounding conditions)	±1 - 2%	±1 - 2%	±1 - 2%
Thermometers Scale length approx. divided at 0.5°C increments	180mm	180mm	195mm
Dimensions	300 x 140 x 50mm	285 x 35 x 15mm	330 x 13 x 13mm
Weight	800g	113g	70g
<b>Ordering information</b>			
Screen	M113011		
Range -20 to +55°C with simple slide rule and wick	M112065	M112063	M112060
Range -20 to +55°C with simple slide rule, wick and calibration certificates	M105349		M105327
<b>Accessories and spares</b>			
Thermometer, range -20 to +55°C	B6886/11		
Thermometer, range -20 to +55°C with calibration certificate	M105302		
Muslin wicks (pack of 50)	M112053		
Replacement water reservoir	A7544/Z		
Simple slide rule	M112011		
BMO style slide rule	M112012		
Hygrometric tables	M112009		
<b>Contact Details</b>			
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#### WHIRLING HYGROMETER

This instrument provides a simple and effective way to measure relative humidity in air. The wet and dry bulb thermometers are held in a slotted frame which is whirled at speed around the handle to give a high and reasonably constant rate of air flow.

For additional information on the Whirling Hygrometer, contact Casella CEL.

For further information on temperature and relative humidity measurement using Casella CEL instruments, contact Casella CEL.

#### Applicable Standards

BS 2842 Specification for Whirling Hygrometer

BS 1339 Definitions, formulae and constants relating to humidity of the air

Specification	WHIRLING HYGROMETER		
Accuracy	Approximately 2%RH (dependent on temperature, wet bulb depression and correction of thermometer errors)		
Thermometers	Scale length approx. 100mm, divided at 0.5°C increments		
Range	-15 to +40°C, -5 to +50°C		
Dimensions	230 x 145 x 30mm		
Weight	200g		
<b>Ordering Information</b>			
Whirling Hygrometer -15 to +40°C with simple slide rule and wick	M112020		
Whirling Hygrometer -15 to +40°C with simple slide rule, wick and NAMAS calibration certificate for each thermometer	M105337		
Whirling Hygrometer -5 to +50°C with simple slide rule and wick	M112022		
Whirling Hygrometer -5 to +50°C with simple slide rule, wick and NAMAS calibration certificate for each thermometer	M105334		
<b>Accessories and spares</b>			
Leather carrying case	M112027		
Plastic carrying case	M112028		
Simple slide rule	M112011		
Pack of 100 wicks	M112035		
1 replacement thermometer -15 to +40°C	- TM4		
1 replacement thermometer -15 to +40°C with NAMAS calibration certificate	M105347		
1 replacement thermometer -5 to +50°C	- TM5		
1 replacement thermometer -5 to +50°C with NAMAS calibration certificate	M105316		
<b>Contact Details</b>			
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