



# Humidity measurement

## KS98-application



Calibrated humidity measurement  
Integrated in laboratory equipment housing  
Optional humidity and temperature control  
Calibration certificate for hole unit

### KEY WORDS

humidity calculation, psychrometer, calibration, wet and dry bulbs, laboratory equipment

### DESCRIPTION

ECE Fast was recently approached by the testing laboratory of a large paper manufacturer to repair and calibrate their 20 years old psychrometer. This device is used in the lab for independent spacial checks throughout the lab. The original manufacturer still exists however was unable to assist the client.

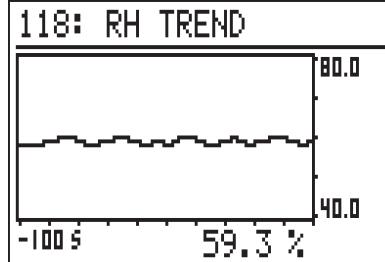
**Operation:** The equipment uses wet and dry bulbs in the path of a forced airflow via a fan to measure relative humidity.

### IMPLEMENTATION:

The existing electronics board was replaced with a PMA KS98 instrument. The ECE Fast Technical Center and ECE Fast Manufacturing designed a "top hat" enclosure fitted onto the existing enclosure to house the KS98.

ECE Fast Sensors manufactured new high accuracy RTD Pt100 matching sensors to replace the existing units.

The ECE Fast Technical Center in consultation with the customer programmed the KS98 functionality in accordance to the special customer's requirements. Finally ECE Fast NATA



117: LAB Survey	
DRY	= 27.2 deg.C
WET	= 21.4 deg.C
RH	= 59.3 %

Example of Displays on KS98 for Wet Bulb, Dry Bulb and Humidity Instrument



The old (left) and the new (right) unit

Laboratory provided a calibration certificate for the complete unit.

adapted to also control humidity and temperature.

Using this functionality and with the power of the KS98 this can easily be

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