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**INDUSTRY STANDARD OF THE
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**Verification Regulation of Mechanical Thermo-hygrometers
(English Translation)**

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Mechanical thermometer and hygrometer verification procedures

1 Scope

This procedure is applicable to mechanical thermometers and hygrometers with a measuring range of 5 ° C ~ 50 ° C, 30% RH ~ 95% RH.

The first verification, subsequent verification and in-use inspection of the mechanical hygrometer (hereinafter referred to as the hygrometer,).

2 Citations

"Humidity Measurement", Meteorological Press, 1st edition, 1990 JJG 2046-1990 "Humidity measuring instrument measurement and verification system" JISB7920:2000 "Hygrometer - Test Method" JB/T 6862-1993 "Hygrometer" Use of this procedure should take care to use the current valid version of the above cited documents.

3 terms

3.1 Mechanical hygrometer Using hair, nylon and organic polymer coating materials as moisture sensing components, direct indication of relative humidity Type and record type hygrometer. It includes a hair hygrometer, a hair moisture recorder, and the like.

3.2 dry and wet table Naturally ventilated by a glass liquid thermometer, wet water jacket, water container and humidity checklist or slide rule Dry and wet bulb hygrometer.

3.3 mechanical thermometer and hygrometer by humidity part (mechanical hygrometer or wet and dry meter) and temperature part (bimetal thermometer or glass liquid temperature an integrated temperature and humidity instrument.

4 Overview

The geometrical dimensions of organic polymer materials such as hair, nylon and polyimide will vary with relative humidity.

Change. Mechanical thermometers use this feature to make these materials into linear, ribbon-like wetted components or coatings.

Coiled into a hairspring-like moisture-sensitive element on an elastic material, and then the geometric amount caused by the humidity change by a mechanical amplifying device the change is indicated by a pointer or recorded with a stylus to directly indicate the relative humidity.

Under certain conditions, the relative humidity of the air is a function of the dry bulb temperature and the wet bulb temperature, ie wet.

The lower the degree, the lower the temperature of the wet bulb, and the greater the difference between the wet and dry temperature. The wet and dry watch is made by using this principle.

The mechanical thermometer and hygrometer is an integrated temperature and humidity instrument composed of a temperature part and a humidity part, and the temperature part it is a bimetal thermometer or a glass liquid thermometer, and the humidity part is a mechanical hygrometer or a wet and dry watch. It is suitable for experiments Measurement of indoor environmental temperature and humidity in rooms, computer rooms, warehouses, and workshops.