

Instructions for use

Analogue Hygrometer

TFA[®]

General information:

Humidity

Hygrometers are used to measure the relative humidity (the amount of moisture in the air). The term „relative humidity“ refers to the degree of saturation of the air with water vapour. For example, if the air temperature drops when the water vapour content remains the same, the „relative air humidity“ increases, as the colder air absorbs less water vapour.

Measuring principles

TFA uses two different hygrometer movements which are manufactured in-house: at the heart of the TFA-patented and particularly precise synthetic-hair hygrometer is a synthetic hair. As early as the 18th century, the human hair was used to measure humidity due to its highly hydroscopic nature: when the humidity rises it expands and contracts again as the air dries.

In a bimetallic hygrometer, the hair is replaced by a coated bimetallic coil that spirals around a metal wire

Healthy room climate

Feeling well and comfortable at home is very much dependent on the quality of the interior air. Humans release a lot of water vapour (moisture) in the air (showering, cooking, laundry drying, ...) when going about their daily activities. If there is insufficient air exchange the air will become too moist. Excessive room-air humidity (>65%) promotes the formation of mould. But air that is too dry is also bad for our health and wellbeing in different aspects. A relative humidity of 40 – 60 % is felt as comfortable to most people.

Weather monitoring

The monitoring of the humidity in the open air gives you information about the changes in the weather. In most cases, an increase will result in bad weather; whereas decreasing humidity gives way to good weather. Make sure that your device is weatherproof and suitable for outdoor use!

Positioning:

In order to ensure the correct functioning of the device, a suitable location is particularly important. For outdoor measurements, the device must be installed at a place where it can be protected from direct weather conditions such as sun radiation or rainfall. When indoors, place the unit in the room where you want to measure the humidity. Ensure good ventilation. Avoid the proximity of heat sources such as radiators and direct sunlight.

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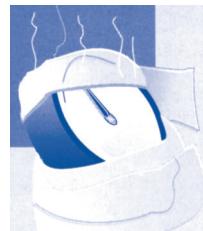


Regeneration and re-adjustment:

Our hygrometers are produced with great care and then adjusted ex-works. Transport, storage and long-term use in predominantly dry rooms may decrease the hygroscopic function of the material.

In order to ensure long-term reliable measurements, the hygrometers have to be regenerated at least every 6 months and adjusted, if necessary. This may also be the case right after purchasing the product. Always check your new hygrometer before using it for the first time with a well-set device.

The regeneration is primarily about the restoration of the ideal texture of the delicate material. Please proceed as follows:



1. Soak a tea towel with warm water and wring it completely, so that it does not drip.
2. Wrap the unit **completely** with the cloth and leave it for about 15-30 minutes.
3. When removed, the ideal displayed humidity should be in the range of 90 to 99% RH.
Please note, however, that a damp cloth cannot provide a clear reference value.

If re-adjustment is required, the hygrometer should be adjusted with several additional hygrometers or a precision reference device after a regeneration in normal indoor climate has been completed. Please pay attention to the following points:



1. The devices must be directly adjacent to each other and under identical conditions, typically with some air circulation.
2. Give the instruments 30-45 minutes of acclimatization time.
3. On the back of your device, there is a small cross-head screw in one of the holes. Turn it carefully with a fine cross-head screwdriver to set the dial on the front to the new value taken from the reference device.



Note: The closer the reference value is to the later ambient conditions, the more accurate your measurements will be.
In the case of a dry location/ environment, adjust the dial to the lower area; when used in a humid environment, adjust it to the upper area.