

# HMK15 Humidity Calibrator



## Features/Benefits

- Easy and reliable calibration of humidity probes and transmitters
- Based on saturated salt solutions
- Fast temperature equilibration
- No external power required
- Suitable for laboratory use and on-site checks
- Chambers and transit covers make HMK15 easy to transport
- Pre-measured certified salts available
- Vaisala Service Centers offer accredited calibrations for humidity, temperature and barometric pressure.

*In addition to laboratory use, Vaisala Humidity Calibrator HMK15 is suitable for on-site checks of humidity probes and transmitters.*

No measuring instrument stays accurate by itself. It is essential that the functioning of an instrument is periodically checked against a reference. Vaisala has developed the Vaisala Humidity Calibrator HMK15 to make calibration and spot checking of humidity probes and transmitters easy and reliable.

### Method used by leading laboratories

The operating principle of the HMK15 is based on the fact that a saturated salt solution generates a certain relative humidity in the air above it. The reading of the humidity probe or transmitter can then be adjusted accordingly. Many leading laboratories use this generally accepted and reliable method to calibrate humidity instruments. Usually two or three different salt solutions are used. Salts are chosen according to the application.

### Certified salts

The HMK15 can be ordered with certified and pre-measured salts. A sample calibration is made from each batch in Vaisala's Measurement Standards Laboratory (MSL).

### Calibrated thermometer

The HMK15 can be ordered with a thermometer, which is used for measuring the temperature during the calibration. It can also be used for checking the temperature measurement accuracy of the transmitter. The thermometer can contain either mercury (accuracy  $\pm 0.3\text{ }^{\circ}\text{C}$  ( $\pm 0.54\text{ }^{\circ}\text{F}$ )) or red capillary fluid (accuracy  $\pm 1.0\text{ }^{\circ}\text{C}$  ( $\pm 1.8\text{ }^{\circ}\text{F}$ )). The mercury thermometer is calibrated in Vaisala's MSL. Thermometers with red capillary fluid are calibrated by the manufacturer.



**K008 (EN ISO/IEC 17025)**

### FINAS approved Measurement Standards Laboratory

Vaisala's Measurement Standards Laboratory is a FINAS accredited calibration laboratory. FINAS is a member of the EA (the European Cooperation for Accreditation).

# Technical Data

## Vaisala Humidity Calibrator HMK15

The standard HMK15 consists of the following parts:

- Two salt chambers, chamber covers and transit covers
- Base plate
- Fitting adapter for HMT320 series probes
- Choice of thermometers
  - mercury thermometer, Vaisala calibrated, order code 19728HM
  - thermometer with red capillary liquid, calibrated by manufacturer, order code 25130HM
- Measurement cup and mixing spoon

### Options

Certified and ready dosed salts:	Order code:	Total uncertainty*:
LiCl salt 11 %RH	19729HM	(±1.3% RH)
MgCl <sub>2</sub> salt 33 %RH	19730HM	(±1.2% RH)
NaCl salt 75 %RH	19731HM	(±1.5% RH)
K <sub>2</sub> SO <sub>4</sub> salt 97 %RH	19732HM	(±2.0% RH)

\*Uncertainties given at +20 °C

Ion exchanged water	19767HM
Extra salt chambers	19766HM
Carrying bag	HM27032



*Vaisala Humidity Calibrator HMK15 calibrating the Vaisala HUMICAP® Hand-Held Humidity and Temperature Meter HM70.*

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