HD 110

Thermo-hygrometer

Description of the device

1. OK key
2. Backlight key
3. Select key
4. On/Off/Esc key
5. Hold/min/max key

General features

Measuring element	Digital sensor (CMOS)
Display	4 lines, LCD technology. Dimensions 50 x 36 mm 2 lines of 5 digits with 7 segments (value) 2 lines of 5 digits with 16 segments (units)
Cable	Coiled, 0.45 m length, expanding to 2.4 m
Housing	ABS, protection IP54
Keypad	5 keys
European directives	2014/30/EU EMC; 2014/35/EU Low Voltage; 2011/65/EU RoHS II; 2012/19/EU WEEE
Power supply	4 batteries AAA LR03 1.5 V
Battery life	150 hours
Ambience	Neutral gas
Conditions of use (°C, %RH, m)	From -10 to +50 °C. In non condensing conditions. From 0 to 2000 m.
Operating temperature (probe)	From -20 to +70 °C
Storage temperature	From -20 to +80 °C
Auto shut-off	Adjustable from 0 to 120 min
Weight	310 g

Technical specifications

Parameters	Measuring units	Accuray[1]	Measuring range	Resolution
Relative humidity	%RH	**Accuracy* (Repeatability, linearity, hysteresis):** ±1.8% RH (from 15 °C to 25 °C) **Factory calibration uncertainty:** ±0.88% RH **Drift linked to the temperature:** ±0.04 x (T-20) %RH (if T < 15 °C or T > 25 °C)	From 5 to 95 %RH	0.1 % RH
Dew point	°C$_{td}$, °F$_{td}$	±0.8% of reading ±0.6 °C$_{td}$	From -40 to +70 °C$_{td}$	0.1 °C$_{td}$
Ambient temperature	°C, °F	±0.4% of reading ±0.3 °C	From -20 to +70 °C	0.1 °C

[1] All the accuracies indicated in this technical datasheet were stated in laboratory conditions, and can be guaranteed for measurements carried out in the same conditions, or carried out with calibration compensation.

Perform a measurement

- Turn on the device by pressing on "On/Off/Esc".
  The device displays its name "HD110" then the measured values.
- Put the probe to the required location.
  The device displays the temperature and hygrometry measurements.
- Press "OK".
  The device displays the dew point measurement with the temperature measurement.
- Press again on "OK".
- The device displays the dew point measurement with the hygrometry measurement.
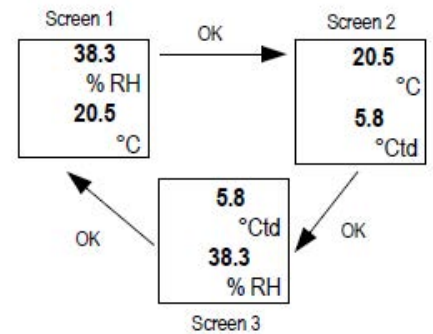
Freeze the measurement

During the measurement:
- Press "Hold/min/max" to freeze the measurement.
  "Hold" displays on screen and the measurements are frozen.
- Press "On/Off/Esc" to exit the hold function.
 The device returns to the measurements display.

Display the minimum and the maximum

Once the measurement is frozen:
- Press "Hold/min/max".
- The device displays the maximum value of hygrometry measured since the last questioning at the top of the screen and the minimum value of hygrometry measured since the last questioning at the bottom of the screen.
- Press "Hold/min/max".
- The device displays the maximum value of temperature measured since the last questioning at the top of the screen and the minimum value measured since the last questioning at the bottom of the screen.
- Press again "Hold/min/max".
- The device displays the maximum value of dew point measured since the last questioning at the top of the screen and the minimum value of dew point measured since the last questioning at the bottom of the screen.
- Press "On/Off/Esc" to return to the measurements display.

Adjust the device

Device drop-down menu
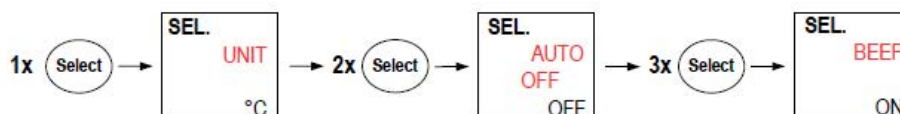
### Select the measuring unit
- Press "Select".
  "UNIT" blinks on screen.
- Press "OK", the measuring unit currently used blinks at the bottom of the screen.
- Press "Select" to select the required measuring unit: °C or °F.
- Press "OK" to validate.
  "UNIT" blinks on screen.
- Press "On/Off/Esc" to return to the measurement.
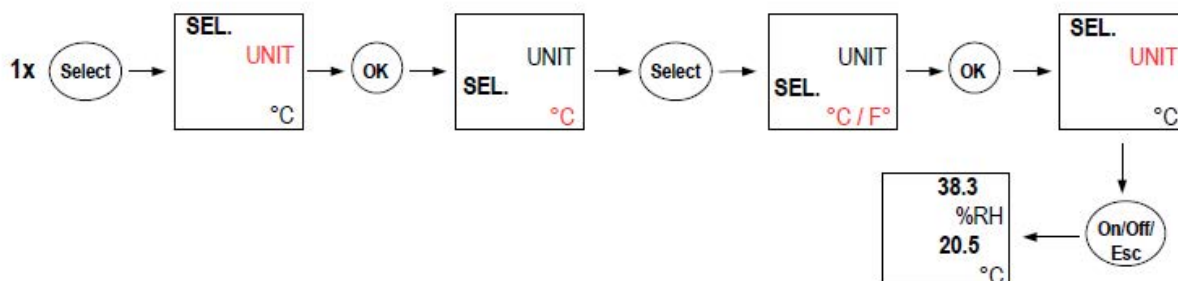
## Adjust the auto shut-off

The device is on and displays the measurements.

- Press "Select" until "AUTO OFF" blinks on screen.
- Press "OK".
  The time before auto shut-off blinks on screen.
- Press "Select" to select the time before device auto shut-off: 15, 30, 45, 60, 75, 90, 105, 120 minutes or OFF.
- Press "OK" to validate.
- Press "On/Off/Esc" to return to the measurement.
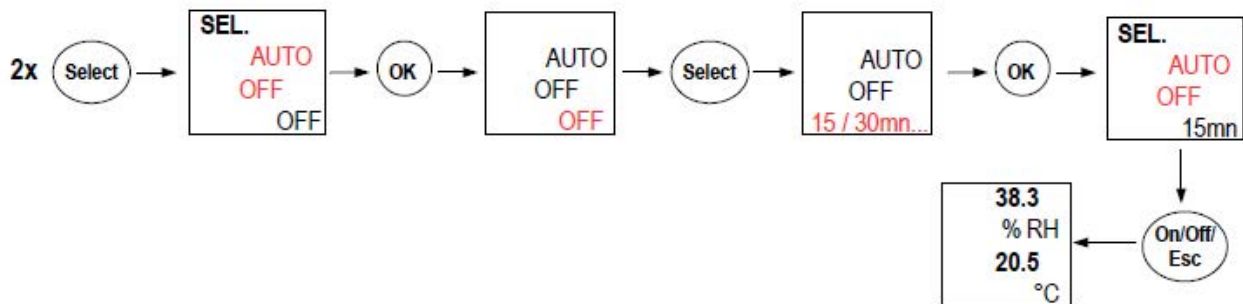
Activate or deactivate the keys beep

- The device is on and displays the measurements.
- Press "Select" until "BEEP" blinks on screen.
- Press "OK".
  "OFF" or "ON" blinks on screen.
- Press "Select" to activate the keys beep "ON" or deactivate the keys beep "OFF".
- Press "OK" to validate.
- Press "On/Off/Esc" to return to the measurement.
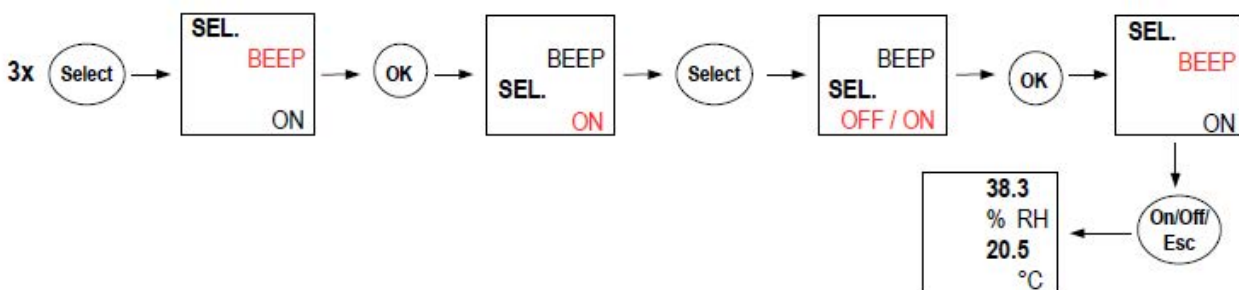
Activate the backlight

- Press on "Backlight" to activate the device backlight.
- To deactivate the backlight press again on "Backlight".

Change the batteries

- Remove the front part at the back of the device.
- Change the old batteries by AAA LR03 1.5 V batteries.
- Replace the front part.