

PALM-SIZED TEMPERATURE/HUMIDITY METER HN-CH SERIES



The HN-CH series is accurate palm-sized temperature/humidity meter with the measuring range of 0 to 100%RH by using a high performance and reliable humidity sensor.

Three types of sensors, sensor built-in type, probe type and separated type can be selected to meet various applications requirement.

It also has the data logging function capable to store up to 8000 readings each of temperature and humidity into memory, and communications function (RS232C or RS485) for various use such as mobile measurement, desk-top and wall-mount.

■ FEATURES

- Measurement of relative humidity 0 to 100%RH by polymer capacitance type humidity sensor
- High accurate measurement in low humidity range less than 20%RH
- Improved repeatability and reliability by a new developed humidity sensor
- Design fitted into mobile measurement, desk-top and wall-mount
- Logging function of up to 8000 readings each of temperature and humidity
- Easy maintenance with complete interchangeable sensors
- Three types of sensors, sensor built-in type, probe type and separated type meet various applications requirement

■ MODELS

HN-CH□□

Type of sensor

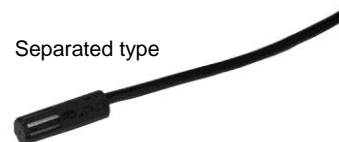
- N: Sensor built-in type
- P: Probe type (with 1.5m cable)
- T: Separated type (with 1.5m cable)

Communications interface

- R: RS232C
- S: RS485

■ GENERAL SPECIFICATIONS

Sensor:	Humidity --- High-polymer capacitance type humidity sensor Temperature --- Semiconductor temperature sensor
Measuring range:	Humidity --- 0 to 100%RH (No dew condensation) Temperature --- -10 to 50°C (Built-in type) -40 to 80°C (Probe type, Separated type)
Accuracy rating:	Humidity --- ±2%RH (0 to 90%RH at 25°C) ±3%RH (90 to 95%RH at 25°C) Temperature --- ±0.5°C (0 to 50°C) ±1°C (except other than the above shown)
Temperature coefficient:	±0.1%RH/°C (5 to 80°C) (Humidity sensor)
Response time:	Within 15 seconds (Humidity sensor) (90% response, 25°C constant, under 0.1m/s ventilation)
Working temperature:	Main unit: -10 to 50°C Sensor: Same as measuring range
Sensor interchangeability:	Interchangeable by plug-in (For probe type and separated type, interchangeable including cable)
Number of logging data:	Temperature/humidity; Up to 8000 data each (EEPROM)
Display:	Reflecting type LCD display
Battery life:	Approximately a half year (when using AA batteries in constant temperature and humidity, and using data logging as data logger while auto power-off function is on.)



Separated type



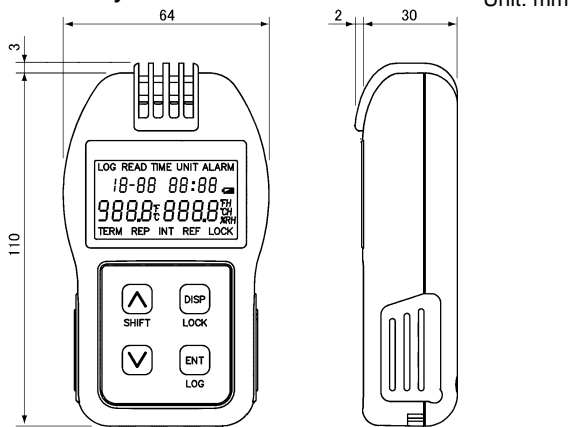
Probe type

DISPLAY/SETTING CONTENTS

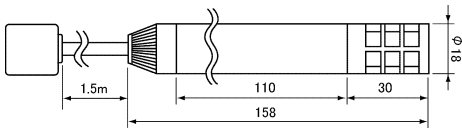
- Current data: Month, day, hour, minute
Temperature reading (°C or °F)
Relative humidity or dew-point temperature reading (°C or °F)
- Replaying data: Programmed parameters
Logged data at each year, month, day, hour or minute
Maximum temperature/humidity, minimum temperature/humidity, average temperature/humidity, totalizing temperature
- Setting items: Clock --- Year, month, day, hour, minute
Temperature --- °C, °F display setting
Relative humidity, dew-point temperature (°C or °F) display setting
Logging type --- Manual or interval
Logging start time --- Year, month, day, hour, minute or key operation
Logging end time --- Year, month, day, hour, minute or key operation
Logging repetition --- No repetition, every day, every week
Measuring interval --- Continuous, 1 to 60 minutes
High alarm, low alarm, reference temperature for totalizing, totalizing direction, auto power-off, key lock
- Display contents: Clock constantly, measured value by key-touch at OFF
Communications function: RS232C or RS485
Power supply: 2 AA batteries or 100-240V AC (with AC adapter ; sold separately)
External dimensions: W64 X H113 X D32mm (For built-in type)
Weight: Approximately 150g (including batteries)

■ DIMENSIONS

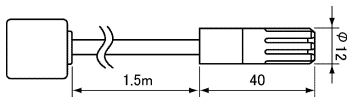
● Main body



● Probe type sensor



● Separated type sensor



■ STANDARD ACCESSORIES

1 copy of instruction manual (2 types), 1 desk-top prop, 2 AA batteries

■ OPTIONAL ACCESSORIES

Description	Models	Note
Temperature /humidity sensor (for replacement)	Built-in type	HN-CSHN
	Probe type	HN-CSHP 1.5m Cable
	Separated type	HN-CSHT 1.5m Cable
AC adapter	HN-CYHRA	Input 100-240V AC, Output 4.8V DC
RS232C Communications cable	HN-CYHC	Length 2m
RS485 Communications cable	HN-CYHD	Length 2m
Protocol converter	SC8-10	RS232C ↔ RS485

DATA LOGGING SOFTWARE (option)

The software package records and analyzes the measured data in a palm-sized temperature/humidity meter HN-CH series with the personal computer.

It can read the recorded data easily with the spreadsheet software on the market. RS232C communication type indicates the data list or historical trend up to 10 units in the same axis graph easily by connecting RS232C cable with HN-CH one by one.

And, it has the mode that one measurement data is monitored in real time.

RS485 communication type connects HN-CH onto the multi-drop-line, and it can monitor the measured data up to 30 units in real time.

■ MODELS

HN-VXH□□

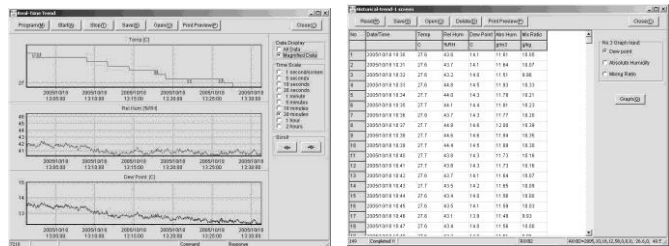
Communications interface

- 1: RS232C
- 2: RS485

Language

- E: English
J: Japanese

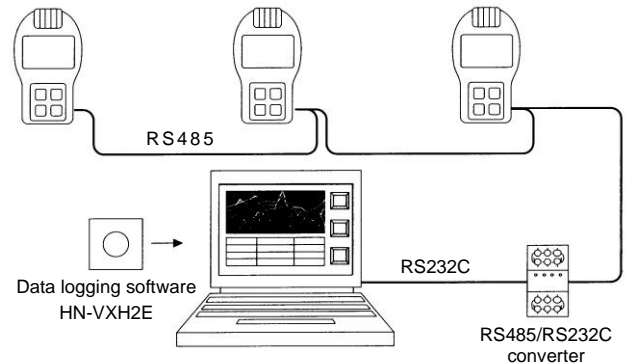
* OS environment: Windows XP (SP3)/ Vista /7 /8 /8.1, 32bit/ 64bit



Trend screen

Data list screen

■ MULTI-POINT MEASUREMENT BY PC



Note: Memory data can't be utilized because HN-VXH2E (RS485) is limited to the real-time measurement.

ENVIRONMENT FOR HN-CH

- Humidity element is compound from absorbent polymer film and thin element that can transmit vapor. So under the environment that has the substance mentioned below, the element deteriorates in a short while and measuring fails.
 - Containing much ketone organic solvent, ester organic solvent, halogen, strong acid substances, corrosive substances, dusts, oil mists, salty mists
- Please do not use HN-CH in where there are explosive gas, corrosive gas and flammable gas or where steam, drug liquid and seawater affect. It is dangerous to use HN-CH in such environment.
- Measuring is not possible under dew-condensed state, but becomes measurable when returns to a normal state.

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