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**

<table>
<thead>
<tr>
<th>Type of sensor</th>
<th>Communications interface</th>
</tr>
</thead>
<tbody>
<tr>
<td>N: Sensor built-in type</td>
<td>R: RS232C</td>
</tr>
<tr>
<td>P: Probe type (with 1.5m cable)</td>
<td>S: RS485</td>
</tr>
<tr>
<td>T: Separated type (with 1.5m cable)</td>
<td></td>
</tr>
</tbody>
</table>

**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 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.)

**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 location
  - 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)
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

Communications interface
1: RS232C
2: RS485

Language
E: English
J: Japanese

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

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

OPTIONAL ACCESSORIES

<table>
<thead>
<tr>
<th>Description</th>
<th>Models</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature humidity sensor</td>
<td>HN-CSH-IN</td>
<td></td>
</tr>
<tr>
<td>(for replacement)</td>
<td>Probe type</td>
<td>HN-CSHP 1.5m Cable</td>
</tr>
<tr>
<td></td>
<td>Separated type</td>
<td>HN-CSHT 1.5m Cable</td>
</tr>
<tr>
<td>AC adapter</td>
<td>HN-CY-HRA</td>
<td>Input 100-240V AC, Output 4.8V DC</td>
</tr>
<tr>
<td>RS232C Communications cable</td>
<td>HN-CY-HC</td>
<td>Length 2m</td>
</tr>
<tr>
<td>RS485 Communications cable</td>
<td>HN-CY-HD</td>
<td>Length 2m</td>
</tr>
<tr>
<td>Protocol converter</td>
<td>SC-10</td>
<td>RS232C ↔ RS485</td>
</tr>
</tbody>
</table>

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.