

Simple handheld dew point meter

Model:AH-192DS

1. characteristic

- * By employing advanced technologies such as microcomputer technology and anti-interference techniques, rapid and precise measurements are achieved.
 - * The display ignores parallax.
 - * Wide measurement range and high fractional valve closure rate.
 - * Automatically remembers the maximum and minimum values of humidity and temperature, as well as the last measured value.
 - * The packaging is robust and refined, ensuring convenient portability. The entire device employs durable selected electronic components; the housing is constructed with lightweight yet rigid materials.
- ABS plastic, featuring elegant and attractive designs with convenient usability.

2. performance parameter

2.1 General parameters

Display: 10mm LCD screen
 Test parameters: humidity, temperature, wet-bulb temperature
 Time taken: 0.4 seconds
 Peak retention function.
 Time base: Quartz crystal
 Power source: 4X1.5V AAA (UM-4) batteries
 Power consumption: Approximately 20 mA
 Main unit dimensions: 140X71X32mm
 Weight: ≈175 grams (excluding battery)
 Attachment: Portable bag..... 1
 package of instructions..... 1

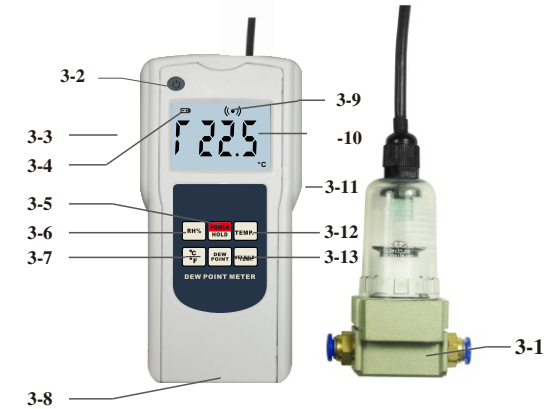
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2.2 technical parameter

Sensor internal type: Humidity: Moisture-sensitive capacitor Temperature: Thermistor
 R.H Range: 10-95RH%
 R.H resolution: 0.1RH%
 R.H accuracy: 2.5% ± 1% RH
 Humidity measurement can be automatically calibrated across the entire temperature range.
 Temperature range: -10°C to 60°C (32 to 140)
 Temperature resolution: 0.1°C/0.1
 Temperature accuracy: ± 0.5°C
 Wet-bulb temperature range: -10°C to 60°C (32 to 140°F)
 Wet-bulb temperature resolution: 0.1°C/0.1
 Wet-bulb temperature accuracy: ± 0.5°C
 Dew Point Temp. range: -20°C~40°C

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3. Panel Description



Graph 1

- | | |
|----------------------------------|---|
| 3-1 Sensor | 3-8 RS-232 interface |
| 3-2 Power button | 3-9 Maximum value indicator |
| 3-3 Liquid Crystal Display | 3-10 Measurement value |
| 3-4 Battery symbol | 3-11 Rear battery cover |
| 3-5 Power/Maximum Value Hold Key | 3-12 Temperature Selection Key |
| 3-6 Humidity Selection Key | 3-13 Wet-bulb temperature selection key |
| 3-7 Unit conversion key | |

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4. measurement routine

4.1 moisture measurement

- (1) Power on using the power button (3-2) or the power/maximum hold button (3-5).
- (2) Press the humidity measurement key (3-6).
- (3) The displayed value on the screen is the humidity level, with the unit "RH%" indicating relative humidity.
- (4) If environmental conditions change, a balance time of several minutes is required.
- (5) After measurement completion, power off by pressing the power button (3-2) or the power/maximum hold button (3-5).

4.2 temperature measurement

- (1) Power on using the power button (3-2) or the power/maximum hold button (3-5).
- (2) Measure temperature using the key (3-12).
- (3) The number displayed on the screen is the temperature value, with the characters "°C" or "°F" indicating the temperature unit.
- (4) After measurement completion, power off by pressing the power button (3-2) or the power/maximum hold button (3-5).

4.3 Wet-bulb temperature measurement

- (1) Power on using the power button (3-2) or the power/maximum hold button (3-5).
- (2) Select the key based on wet-bulb temperature (3-13).
- (3) The displayed value is the dew point, with the unit "°C" or "°F" indicating temperature.
- (4) If environmental conditions change, a balance time of several minutes is required.
- (5) After measurement completion, power off by pressing the power button (3-2) or the power/maximum hold button (3-5).

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5. To enable maximum value retention, press and hold the power/maximum value retention button (3-5) for 1 second, then release. The "MAX" symbol will appear on the display.

6. Alternating display of humidity and temperature
 6.1 Press and hold the power/maximum hold button (3-5) for 5 seconds. The display will show the text "ΓUrn". Release the button, and the humidity and temperature values will alternate on the display.

- 6.2 At this stage, utilize the humidity selection key (3-6), temperature selection key (3-12), wet-bulb temperature selection key (3-13), and unit conversion key (3-7) to retrieve the required data.
- 6.3 Press and hold the power/maximum hold button (3-5) for 5 seconds until the "ΓUrn" message appears on the display. Release the button to exit this mode.

7. Replace battery

- 7.1 When the battery voltage is too low, a battery icon will appear on the right side of the display, indicating that the battery needs to be replaced.
- 7.2 Open the rear battery cover (3-11) and remove the battery.
- 7.3 Install the power supply correctly according to the label on the battery case.

8. The installation diagram is shown later

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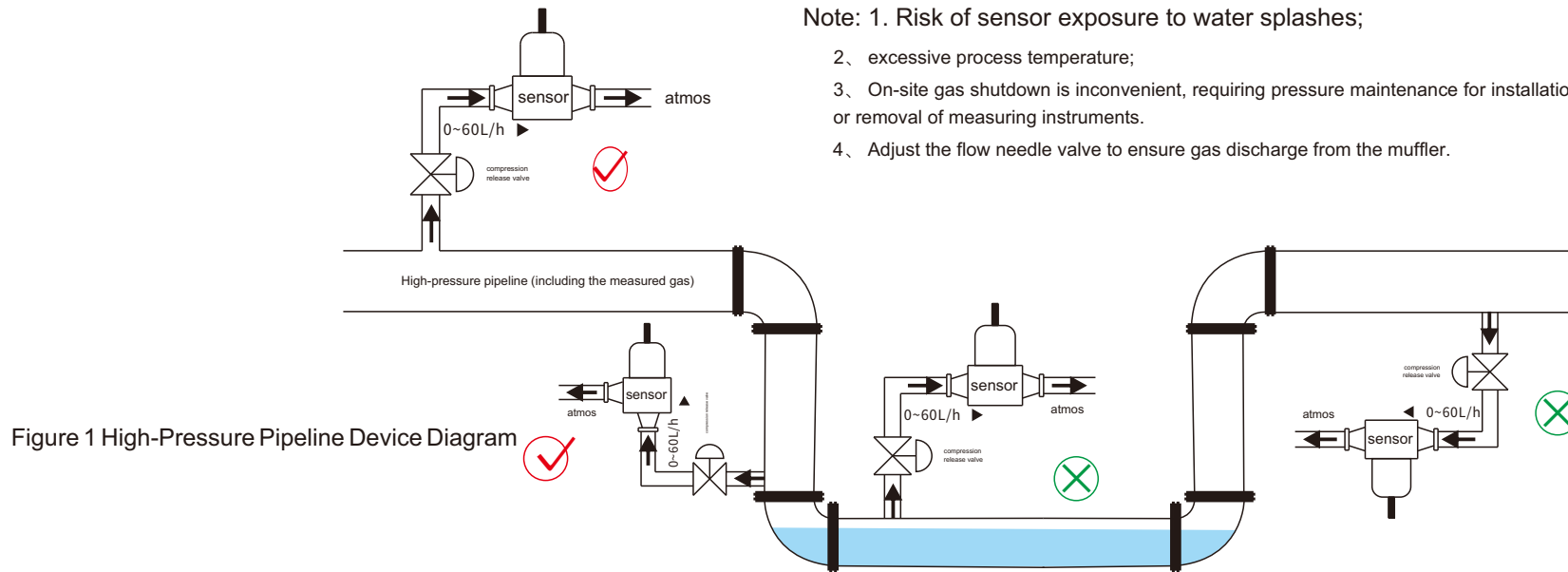
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Note: 1. Risk of sensor exposure to water splashes;

2、 excessive process temperature;

3、 On-site gas shutdown is inconvenient, requiring pressure maintenance for installation or removal of measuring instruments.

4、 Adjust the flow needle valve to ensure gas discharge from the muffler.



Note: 1. Pipeline gases must not be discharged externally (e.

g., hazardous gases or highly expensive process gases);

2、 The dew point sensor must be inserted into the pipeline interior to maintain contact with the flowing gas, and must not form any dead zones.

