

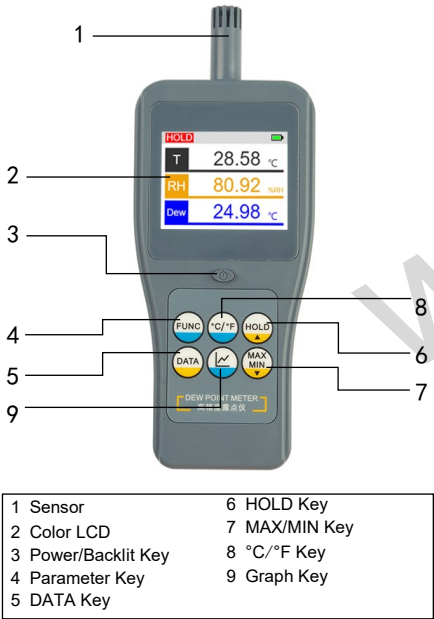
Precision Dew Point Meter RD2680

User's Manual

Version: V1.2
Date: 2024.09



Descriptions



Specifications

Display	Color LCD	
Test Parameters	Ambient Temperature, Dew Point Temperature, Wet Bulb Temperature, Relative Humidity, Absolute Humidity, PPMv, Vapor Pressure, Saturated Vapor	
Ambient Temperature	Range	-40~125°C (-40~257°F)
	Accuracy	±0.1°C (0~50°C) ±0.15°C (Other)
	Resolution	0.01
Relative Humidity	Range	0~100%RH
	Accuracy	±0.7%RH (0~70%RH) ±1.5%RH (Other)
	Resolution	0.01
Dew Point Temperature	Range	-45~60°C (-49~140°F)
	Accuracy	±1°C (-10~60°C) ±(1.5+2%Num)°C (-30~-10°C) ±2.5°C (Other)
	Resolution	0.01
Wet Bulb Temperature	Range	-5~60°C (23~140°F)
	Accuracy	±0.5°C
	Resolution	0.01
Absolute Humidity	Range	0~300g/m³
	Accuracy	±(0.2+3%Num)g/m³
	Resolution	0.01

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Introduction

It is a high-precision professional dew point meter. It is able to measure Ambient Temperature, Dew Point Temperature, Wet Bulb Temperature, Relative Humidity, Absolute Humidity, PPMv, Vapor Pressure, Saturated Vapor Pressure, Mixing Ratio, Specific Enthalpy. Widely used in HVAC, laboratories, precision manufacturing, modern agriculture, meteorological measurement, chemical and pharmaceutical, power industry and other environmental temperature and humidity monitoring occasions.

Features

- Color LCD with display. It can display multiple values at the same time.
- Support multi-parameter measurement of ambient temperature, dew point temperature, wet bulb temperature, relative humidity, absolute humidity, PPMv, vapor pressure, saturated vapor pressure, mixing ratio, specific enthalpy.
- Temperature unit (°C/°F).
- 0.01 high resolution.
- High accuracy.
- With real-time measurement graph display function.
- With data storage function (99 Groups).
- With maximum, minimum function.
- With data hold function.
- With battery indication function.
- With automatic power off function.

PPMv	Range	100~240000
	Accuracy	±(30+7%Num)
	Resolution	1
Vapor Pressure	Range	0~500hPa
	Accuracy	±1%Num
	Resolution	0.01
Saturated Vapor Pressure	Range	0~500hPa
	Accuracy	±1%Num
	Resolution	0.01
Mixing Ratio	Range	0~600g/kg
	Accuracy	±2%Num
	Resolution	0.01
Specific Enthalpy	Range	0~1500kJ/kg
	Accuracy	±2%Num
	Resolution	0.01
Temp. Unit	°C/°F	
Measurement Graph Display	Ambient Temperature, Dew Point Temperature, Wet Bulb Temperature, Relative Humidity, Absolute Humidity	
Storage	99 Groups (A Total of 990 Data)	
Statistical Functions	Maximum, Minimum	
Automatic Power Off	10 Minutes (No Operation)	

Operating Conditions	0~50°C (32~122°F); 0~90%RH (No Condensation)
Storage Conditions	-10~50°C (14~122°F); 0~95%RH (No Condensation)
Power Supply	4×1.5V AAA(UM-4) Battery
Size	205×80×31mm
Weight	162g (Not Including Batteries)
Standard Accessories	Main Unit×1
	Manual×1 Carrying Case×1

Note:
When the measured dew point temperature is lower than -20°C, please calibrate it yourself to ensure the accuracy of the measurement.

Display Symbols

Display Symbols	Descriptions	Unit
T	Ambient Temperature (Dry Bulb Temperature)	°C/°F
RH	Relative Humidity	%RH
Dew	Dew Point Temperature	°C/°F
Wet	Wet Bulb Temperature	°C/°F
AH	Absolute Humidity	g/m ³
PPM	PPMv (Volume Ratio)	
PW	Vapor Pressure	hPa
PWs	Saturated Vapor Pressure	hPa
X	Mixing Ratio	g/kg
h	Specific Enthalpy	kJ/kg

Instruction

- **Power On:** press and hold the **[Power/Backlit]** key.
- **Power Off:** press and hold the **[Power/Backlit]** key for 3 seconds.
- **Backlit Brightness Adjustment:** short press the **[Power/Backlit]** key to adjust the backlit brightness.

Measurement

T	28.58 °C
RH	80.92 %RH
Dew	24.98 °C

Measurement Expansion 1

Dew	24.98 °C
Wet	25.79 °C
AH	22.73 g/m ³
PPM	32159 ppm

Measurement Expansion 2

PW	31.56 hPa
PWs	39.00 hPa
X	19.99 g/kg
h	79.62 kJ/kg

- **Enter the Measurement Interface:** after powering on, it will enter the **Measurement Interface** automatically.
- **Measurement Interface:** short press the **[Func]** key to switch between measurement interface and expansions of measurement interface.
- **Unit:** short press the **[°C/°F]** key to switch between Celsius Degree (°C) and Fahrenheit Degree (°F).
- **Data Hold:** short press the **[HOLD]** key to hold the displayed value, and the 'HOLD' symbol will appear on the color LCD. And short press again to release the displayed value, and the 'HOLD' symbol will disappear.

- **Maximum/Minimum:** short press the **[MAX/MIN]** key to display the maximum value, and the 'Max' symbol will appear on the LCD. And short press the **[MAX/MIN]** key again to display the minimum value, and the 'Min' symbol will appear on the LCD.
- **Data Storage:** press and hold the **[DATA]** key to storage the displayed value. (Note: If the stored is completed, the color LCD will display "Data is stored".)

Data Viewing

Data	
No.01	continued
T	28.58 °C
RH	80.92 %RH
Dew	24.98 °C

Data Viewing Expansion 1

Data	
No.01	continued
Dew	24.98 °C
Wet	25.79 °C
AH	22.73 g/m ³
PPM	32159 ppm

Data Viewing Expansion 2

Data	
No.01	continued
PW	31.56 hPa
PWs	39.00 hPa
X	19.99 g/kg
h	79.62 kJ/kg

- **Enter the Data Viewing Interface:** in the **Measurement Interface**, short press the **[DATA]** key to enter the **Data Viewing Interface**.
- **Data Viewing Interface:** short press the **[Func]** key to switch between data viewing interface and expansions of data viewing interface.
- **Unit:** short press the **[°C/°F]** key to switch between Celsius Degree (°C) and Fahrenheit Degree (°F).
- **View the Previous Data:** short press the **[HOLD]** key to view the previous data.
- **View the Next Data:** short press the **[MAX/MIN]** key to view the next data.
- **Exit the Data Viewing Interface:** in the **Data Viewing Interface**, short press the **[DATA]** key to exit the **Data Viewing Interface**.

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Battery Replacement

1. When the battery is low, it is necessary to replace batteries in time.
2. Open the battery cover and remove the old batteries.
3. Replace the new batteries correctly according to "+" and "-" in the battery compartment.
4. If the meter will not be used for a long time, please remove the batteries to prevent the batteries from rot and damage the meter.

Battery Symbol	Descriptions
	The battery is high.
	The battery is medium.
	The battery is low.

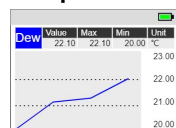
Cleaning

To avoid damage, do not use abrasives or solvents for cleaning the meter. Do not disassemble the meter without authorization, the wrong method will cause man-made damage.

Services

If you want to know more services, please contact with services@realltech.cn.

Graph



- **Enter the Graph Interface:** in the **Measurement Interface**, short press the **[Graph]** key to enter the **Graph Interface**.
- **Graph Interface:** short press the **[Func]** key to switch the graph interface (Ambient Temperature, Dew Point Temperature, Wet Bulb Temperature, Relative Humidity, Absolute Humidity).
- **Unit:** short press the **[°C/°F]** key to switch between Celsius Degree (°C) and Fahrenheit Degree (°F).
- **Graph Hold:** short press the **[HOLD]** key to hold the displayed graph, and the 'HOLD' symbol will appear on the color LCD. And short press again to release the displayed graph, and the 'HOLD' symbol will disappear.
- **Exit the Graph Interface:** in the **Graph Interface**, short press the **[Graph]** key to exit the **Graph Interface**.