



# MAXWELLON DP4090

-40°C to 90°C  
Chilled Mirror Dew Point Meter  
2024

DP4090 precision dew point hygrometer based on the principle of optical chilled mirror, it is a temperature and humidity measurement instrument. This principle is distinguished from indirect measurement of humidity through changes in capacitance and resistance, it directly measures according to the definition of humidity/dew point.

Condensation mirror of DP4090 precision dew point hygrometer is processed by a special semiconductor, makes it have corrosion resistance for certain degree, also have high and low temperature resistance. It uses precision platinum resistance to measure dew point and temperature. It can adapt to most applications and ensure measurement accuracy. And can even be used in harsh environment. It adopts a 4-inch colorful capacitive touch screen display, which is simple, convenient to operate. Curve and multiple parameter conversion can meet various requirements.

## ■ Key Feature

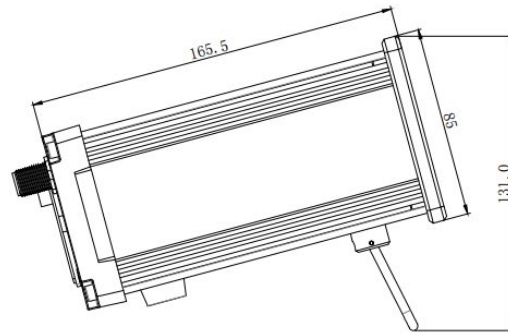
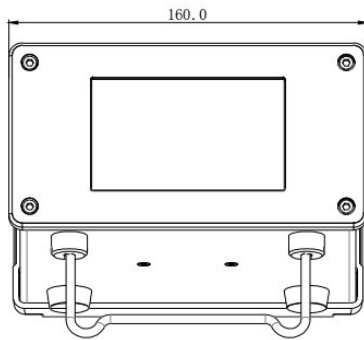
- Direct measurement of temperature and dew point
- Powered by USB, split probe, suitable for various scenarios
- Good repeatability, high resolution, and long-term stability
- 4-inch capacitive touch screen, easy to use
- MODBUS RTU, USB communication, PC software

## ■ Specifications

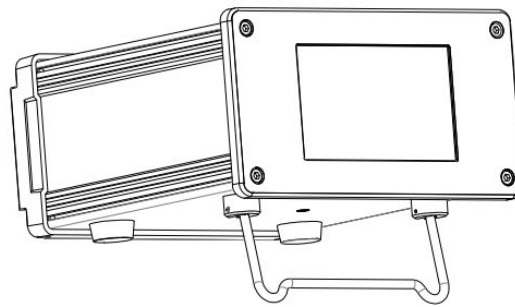
Dew Point Probe	
Measurement Range	-40 to +90°C (humidity measurement range: 0.5-100% RH)
Accuracy	±0.15°C (calibration range -15°C to 20°C)
Resolution	0.01°C
Repeatability	±0.05°C
Sensitivity	±0.01°C
Temperature Probe	
Measurement Range	-40 to +100°C
Accuracy	±0.05°C (calibration range: 5 to +50°C)
Resolution	0.01°C
Repeatability	±0.02°C
Sensitivity	±0.01°C
Instrument Main Specifications	
Operating Environment	-10 to +50°C, 10% to 90% RH
Output	Modbus RTU, USB
Sensor Cable Length	2.0 m
Response Time	Max. cooling rate 0.8°C/s + time to reach equilibrium (typically 15s)
Sample Airflow Rate	0.1 to 0.7 NL/min
Power Supply	AC 100 to 220V 50Hz 35W or portable power supply USB 5V 10W
Display	Color touch screen, user-friendly and convenient operation
Measurable Display Units	
Environmental Temperature	
Dew Point/Frost Point Temperature	
Relative Humidity	
Parts Per Million Concentration	
Specific Humidity of Moist Air - Unit: g/kg (grams per kilogram)	
Absolute Humidity - Unit: g/m <sup>3</sup> (grams per cubic meter)	
Enthalpy of Moist Air - Unit: J/g (joules per gram)	
Current Air Water Vapor Pressure - Unit: hPa (hectopascals)	

## ■ Dimensions

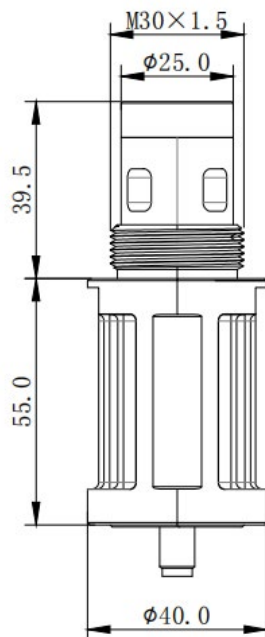
### Host Dimensions



Unit: mm, Tolerance:  $\pm 1$  mm

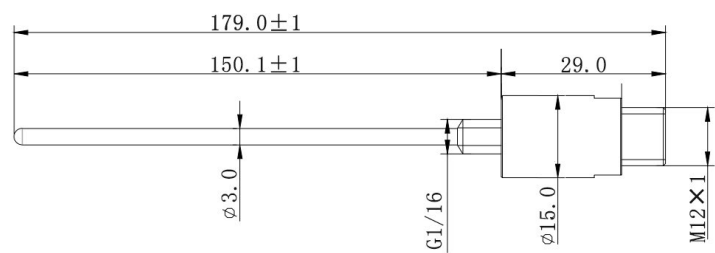


### Dew Point Sensor Dimension



Unit: mm, Tolerance:  $\pm 0.5$  mm

### Temperature Probe Dimension



Unit: mm, Tolerance:  $\pm 0.5$  mm

## ■ Packing List

No.	Name	Qty.
1	Air Cargo Box	1 pc
2	AC Power Cord	1 pc
3	Manual	1 pc
4	Main Unit	1 pc
5	Dew Point Sensor	1 pc
6	USB Type-C Data Cable	1 pc
7	Temperature Probe	1 pc
8	Dew Point Cable	1 pc
9	Temperature Cable	1 pc
10	Warranty Card	1 pc
11	Certificate of Conformity	1 pc



**Maxwellon Electronic Instruments Co.,LTD.**

Factory: No.6 Xiangjiang Road, Qingdao 266000, China  
Tel: 0086 13816527810

Sales Office: NO.153 Zhuzhou Rd.,Laoshan District, Qingdao 266100, China.  
Tel: 0086-532-80977508  
Fax: 0086-532-80977508

Sales: [Sales@Maxwellon.com](mailto:Sales@Maxwellon.com)  
Web: [www.maxwellon.cn](http://www.maxwellon.cn)