



## GDP-8000CM SF6 Gas Dew Point Tester (Chilled Mirror Method)



### Product Description

GDP-8000CM Portable Chilled Mirror SF6 Gas Dew Point Tester is specially designed for SF6 gas micro moisture detection used in the whole temperature zone of the power industry, which is based on Stryn refrigeration and chilled mirror measuring principle.

It not only solved the problem that Peltier's refrigeration principle mirror surface dew point tester could not be used in the high temperature field, but also solved the problem that the test data of the resistive and capacitive moisture meter can not be

stable, the test speed is slow, and the measurement data is inaccurate. The moisture content of SF<sub>6</sub> gas can be detected at a temperature of less than 60°C in the environment with the accuracy of dew point  $\pm 0.2^{\circ}\text{C}$ .

This product has fast test speed, stable performance and good repeatability. It is suitable for micro moisture detection of SF<sub>6</sub> new gas, regeneration gas, running gas and fault gas in power industry.

**Application range:**

- SF<sub>6</sub> combination electric field
- Hydrogen station site
- Laboratory standard equipment
- High purity gas manufacturer
- Hydrogen cooling unit of power plant
- Dry gas and compressed air
- Dry gas supply in semiconductor industry
- High-precision gas calibration device
- Gas R&D use
- Dew point measurement in lithium battery production workshop
- Air purification, cleaning room, dry room monitoring
- Metal heat treatment site and laboratory industrial gas humidity detection, such as air, CO<sub>2</sub>, N<sub>2</sub>, H<sub>2</sub>, O<sub>2</sub>, SF<sub>6</sub>, He, Ar and some other inert gases.

**Features**

- The unique dew point tester designed by Stryn refrigeration and chilled mirror measuring principle can make the instrument perform dew point measurement accurately at any ambient temperature, and the full scale measurement accuracy can reach  $\pm 0.2^{\circ}\text{C}$ . Minimum to  $-110^{\circ}\text{C}$  dew point (100 ppb), no additional cooling module required. (patented technology)

- Advanced software algorithms reduce gas detection stability time to 90 seconds. The actual dew point can be obtained in 90 seconds after sampling the gas. (patented technology)
- Touch + button dual control mode, mutual and independent operation, more safe and reliable. The same screen displays dew point °C, PPMV, relative humidity, temperature, flow and other parameters.
- It can be detected at power-on without preheating and shaking.
- The gas path pre-treatment function can purify the test pipeline before the on-site test work, shortening the test time.
- With temperature conversion and pressure data correction function.
- The test gas path adopts polymer materials without hidden water and water absorption condition.
- High power lithium power supply system can realize AC and DC dual power supply. Smart battery indicator, lithium battery can work for more than 6 hours.
- Anti-electromagnetic interference circuit design to ensure product reliability.
- Large-capacity memory, the storage up to 6000 sets of data.
- The air inlet is designed with a miniature self-sealing joint, and the gas path is not leaked when the gas path is disconnected.

## Specifications

|                                   |                                                                    |
|-----------------------------------|--------------------------------------------------------------------|
| Measurement method                | Auto chilled mirror measurement (Stirling refrigeration principle) |
| Mirror surface temperature sensor | PRT-100                                                            |

|                                |                                                                        |
|--------------------------------|------------------------------------------------------------------------|
| Single sample measurement time | 90 seconds (stable)                                                    |
| Operation temperature          | -20°C ~ +60°C                                                          |
| Measurement range              | -90°C ~ +20°C                                                          |
| Accuracy                       | Better than 0.2°C                                                      |
| Resolution                     | 0.1°C                                                                  |
| Repeat-ability                 | ±0.05°C dew/frost point                                                |
| Display unit                   | °C, ppm (with a dew point conversion value of 20°C in the environment) |
| Gas flow                       | 400-600mL/min                                                          |
| Flow display                   | Imported digital flow meter                                            |
| Sample gas pressure            | ≤1MPa                                                                  |
| Environmental humidity         | 90%RH                                                                  |
| Power supply                   | 220VAC ±10%, DC of Li battery (more than 6 hours battery life)         |
| Dimension                      | 470*200*400mm                                                          |