SF6 Intelligent Accuracy Dew Point Meter

Operation Manual
NOTICE

Honorable User:
When you first use our instrument, please pay attention to these below:

◆ For it will take a short time of self-checking after power on, please power on beforehand.
◆ At the beginning, open all needle valves, use flow valves which on the board to adjust flow. And when test complete, do the two steps conversely.
◆ Do not power off when the instrument at a continuous work, it can work continuously at least 10 hours by a high-capacity lithium battery.
◆ It may leave some air in the stream tube and gas room after non-use for a long term. The wet air will influence the test speed, because the sensor brush up against it before SF6 gas. We’ll find more faster at the second test (3 to 5 minutes).

Thank you for your cooperation!
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1. Feature and specification

1.1 Feature

- Portable design: light, portable, convenient to use.
- Rapid measurement: when start work, it takes a short time on measurement, and get the humidity value.
- Low gas consume: it just consume 2L (101.2kPa) in a test.
- Self-locking joint: the self-locking joint is imported from Germany, safe, reliable, leakproof.
- Data memory: high-capacity design, save up to 50 test data.
- Legible display: dew point, Micro moisture (ppm), ambient temperature, ambient humidity, time, date, battery, etc. can be read from the LCD.
- RS232 port: can be connected with serial printer, carry on data printing.
- Built-in power supply: built-in 4Ah rechargeable lithium battery, it can work continuously at least 10 hours.

1.2 Specification

<table>
<thead>
<tr>
<th></th>
<th>Ranges</th>
<th>−60 °C ~ +20 °C</th>
</tr>
</thead>
<tbody>
<tr>
<td>dew point</td>
<td>Accuracy</td>
<td>±1 °C (−60°C ~ +20°C)</td>
</tr>
<tr>
<td></td>
<td>Test time (+20°C)</td>
<td>&lt;3 minutes</td>
</tr>
<tr>
<td>ambient</td>
<td></td>
<td>−40°C ~ +60°C</td>
</tr>
<tr>
<td>temperature</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ambient</td>
<td></td>
<td>0~100% RH</td>
</tr>
<tr>
<td>humidity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power</td>
<td>AC 220V</td>
<td></td>
</tr>
<tr>
<td></td>
<td>built-in rechargeable battery</td>
<td></td>
</tr>
<tr>
<td>Battery</td>
<td>charge 20 hours, operating 10 hours</td>
<td></td>
</tr>
<tr>
<td>weight</td>
<td>3kg</td>
<td></td>
</tr>
<tr>
<td>dimension</td>
<td>250×100×300mm³</td>
<td></td>
</tr>
<tr>
<td>operating</td>
<td>−40°C ~ +80°C</td>
<td></td>
</tr>
<tr>
<td>temperature</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2. Instruction of panel

2.1 Front panel

CAUTION: You can adjust mount angle by pressing the two adjusting buttons on each side.

2.2 Back panel

2.3 LCD

Dew point
Micro moisture
Date and time
Battery
Ambient temperature
Ambient humidity
3. Operation

3.1 Connect to SF6 electrical equipment
   Connect the screw thread port to the switch joint, screw up it, then close the
   needle valve on the other head of the tube.
   Connect the quick coupling of the test tube to the inlet of the meter.
   Connect the vent tube to the outlet.
   At last, screw up the switch joint to the SF6 electrical equipment.

3.2 Initialization
   Power on the meter, it will take 5 seconds to initialize.

3.3 Check the battery
   The meter takes precedence for use alternating current.
   Or when use direct current, view the battery on top right corner, ensure to power
   off and charge battery when less than 20%.

3.4 Start
   Open all needle valves of stream tube, use flow valve adjust flow to about
   0.5L/M, then meter the dew point of SF6.
   The first equipment is tested in 5 ~ 10minutes, and the next ones needs 3 ~
   5minutes.

3.5 Save data
   After test, save the data, press menu, see menu in part4 for details.

3.6 Test other equipment
   When complete one set of equipments, close the needle valve of the stream tube
   and turn off flow valve. Take the adapter off from SF6 electrical equipment. If any
   equipment needs to be tested, repeat steps above.

3.7 Test complete
   After all tests, power off the meter.

4. Menu

   In test status, press enter to the menu.

4.1 Save data
In test status, press enter to the menu. Then press “up” or “down” to select “save record”, “enter” and input serial number for the equipment which is being tested.

Serial number is up to six-digit, you can change numerical value by “up” or “down”, or change digit by “left” or “right”.

“Enter” when serial number complete inputting, or press “cancel” to give up the record and return to menu.

4.2 View record
In test status, press enter to the menu. Then press “up” or “down” to select “view record”, “enter”.
LCD display from the latest saved record, press “up” or “down” to view the other records.

4.3 Delete record
In test status, press enter to the menu. Then press “up” or “down” to select “delete record”, press “enter” will delete all records.

4.4 Modify time
In test status, press enter to the menu. Then press “up” or “down” to select “change date”, press “enter” to time page.
Press “up” or “down” to adjust time value, press “left” or “right” to select hour, minute and second.
Press “enter”, goes to date setting.

5. Matters need attention

- The meter should place at a safe position, avoid fall and strenuous vibration.
- Do not meter corrosive gas.
- When adjust flow, turn the flow valve slowly, make the flow meter at about 0.5L/M.
- Charge battery before use the meter, connect the power line to a 220V socket, you needn’t power on the meter, it will charge automatically, and needs more than 20 hours.