

RDH DENSITY MINIM-MOISTURE DEVICE



> Description

These instruments are used to monitor micro-water content, density, pressure and temperature of SF₆ gas in sealed tanks, able to achieve real-time remote monitoring. Smart compensation technology is applied for real-time tracking of non-linear gas pressure changes and micro-water changes in SF₆ gas, ensuring accurate measurement and wide range of applications. It is suitable for monitoring the high voltage system. The integrated design and effectively ensure the air tightness. It can provide multiple solutions to support new substations and the intelligent transformation of existing substations.

> Application

SF₆ Gas Insulated Switchgear (GIS)
SF₆ Insulated Circuit Breakers
SF₆ Insulated Pole-Mounted Switch
SF₆ Insulated Transformers
SF₆ Insulated Mutual Inductor

> Features

1. Integrated design for collection device, which can effectively ensure air tightness.
2. The collection device occupies only one vent, reducing the risk of leaks.
3. Remote-style density monitor and dew point sensor are integrated to achieve on-site collection and processing, and report the density, pressure, temperature and micro-water content information simultaneously.
4. Digital signal output, communicate with the backend server via RS485, facilitating on-site networking and commissioning.

> Options

1. Measurement range
2. Wide temperature range -60°C to +60°C
3. Can detect SF₆, Air, N₂, SF₆ + N₂ and other gases

> Technical Data

1 . Scale range: Pressure: 0 to 1MPa abs Dew point: -50°C DDP to 60°C DDP	4 . Ambient conditions: -40°C to +60°C, relative humidity ≤ 95%RH
2 . Accuracy: (related to the measuring span; SF ₆ in gas phase)	5 . Leakage rate: ≤ 1 × 10 ⁻⁹ Pa·m ³ /s (Helium leakage inspection)
a) At 20°C: Class 1.0	6 . Process connection: M20 × 1.5, (customizable)
b) -40°C to +60°C: Class 2.5	7 . Installation method: radial or axial
Dew point: ±3°C DDP	8 . Pressure interface: flange interface
3 . Degree of protection: IP65	10 . Weight: 2.5kg

> Main electrical performance indicators and specifications of the remote transmission part

1. Power supply: DC 24V
2. Power consumption: < 2W
3. Communication mode: RS485
4. Protocol: ModBus RTU
5. Baud rate: 9600bps
6. Anti-electromagnetic interference:
IEC61000-4-2: level 4 (15kV)
IEC61000-4-3: level 3 (10V / m)
IEC61000-4-4: level 4 (4kV)
IEC61000-4-5: level 3 (+/- 2kV)
IEC61000-4-6: level 3 (10V)
IEC61000-4-8: level 5 (100A / m)

> Dimensions

