

# 云滴谱仪



The Cloud Droplet Analyzer is an optical aerosol spectrometer for high-resolution measurement of the size distribution and number concentration of cloud aerosols.

## 优势

- Continuous and simultaneous measurement of particle number concentration and particle size distribution
- Intuitive and simple operation
- Remote monitoring, operation and maintenance easily possible
- No radioactive material
- No consumables
- Low energy consumption
- Low maintenance
- On-site calibration possible

## 应用领域

- Cloud research
- Ice nucleation events
- Environmental research

## 特点

- Determination of the MVD (Mean Volume Diameter), ED (Equivalent Diameter) and LWC (Liquid Water Content) parameters
- Designed for 24/7 operation
- Heated sampling head
- Weather sensor
- Use under difficult climatic conditions

## 技术数据

|                         |   |
|-------------------------|---|
| 测量原理                    | Optical light scattering at single particles  |
| 报告数据                    | Particle size distribution, particle number concentration, mean volume diameter, equivalent diameter, water content |
| 测量范围(数量浓度)              | 0 – 200 particles/cm <sup>3</sup>   |
| 测量范围(粒径)                | 0.6–40 μm, 0.8–100 μm   |
| 体积流量                    | 5 l/min   |
| Size channels           | 64 (32/decade)  |
| Time resolution         | 1 s–24 h  |
| 接口                      | USB, 以太网 (局域网), RS-232/485  |
| User interface          | Touchscreen, 800 • 480 pixel, 7" (17.78 cm)   |
| Protocols               | UIDEP, UDP, ASCII, MODBUS   |
| 软件                      | PDAnalyze   |
| Data acquisition        | Digital, 20 MHz processor, 256 raw data channels  |
| Light source            | Long term stable LED  |
| 外壳                      | 防护等级IP55的防水外壳   |
| Operating system        | Windows 10 IoT Enterprise   |
| 电源                      | 115–230 V, 50/60 Hz   |
| Installation conditions | -30–+40 °C, <95% rH, non-condensing, max. 4.000 m (above sea level)   |
| Sampling head           | Sigma-2被动收集器, 可加热并自动调节  |
| Dimensions              | 约1,150 • 742 • 404 mm (H x W x D)   |
| 重量                      | Approx. 40 kg   |
| Noise emission          | < 60 dB(A)  |
| Power consumption       | 正常运行: 约60 W, 最大200 W  |