Arka Instruments

Air Quality Monitoring System

AI - 2010

Air Quality Monitoring System

Features

- Provides real-time monitoring of outdoor air pollutants.
- real-time data collection in the atmospheric environment(carbon dioxide, sulfur dioxide, nitrogen dioxide, ozone, Vocs,PM2.5, PM10, temperature, humidity, wind speed, wind direction, atmospheric pressure, etc.),
- Supports 24-hour online monitoring.
- Advanced high-precision four-electrode electrochemistry and optical technology principle.
- Sensor provides fast response speed, strong reliability, low maintenance cost and long service life.
- Uses energy-saving power supply, reduce energy consumption,
- Can be calibrated according to the site to ensure the best traceability.

Gas Monitoring Unit

Sensor uses the diffusion gas detection method. The gas in the detected area of the instrument flows freely into the gas sensor with the air. The sensor mainly solves the problems of various gas detection, incompatible sensors, complex production calibration, core device replacement restrictions, convenient operation, accurate measurement, reliable work; light volume, the gas sensor can be replaced according to specific demand, with temperature compensation, no calibration after delivery.

Work voltage	DC5V ±1%/DC24V ±1%	Potter rate	9600
Response time	<30S	Detection principle	Electrochemistry
NO2 measurement range / resolution	0-20/0.001ppm	SO2 measurement range / resolution	0-20/0.001ppm
CO measurement range / resolution	0-100/0.001ppm	O3 measurement range / resolution	0-5/0.001ppm
PM1/PM2.5/PM10 /TSP measurement Range / resolution	0-20m g/m3 0.01ug/m3	TSP measurement range / resolution	0-20m g/m3 0.01ug/m3
Vocs measurement range / resolution	0-20/0.001ppm	Digital signal format	Support for 232 / 485 transmission format, 4G transmission
Sampling accuracy	±2%FS	Work humidity	10~95%RH(non-condensation)
Repeatability	±1%FS	Long-term drift	≤ 1%FS/ years
Work temperature	-20-70℃	Preheat time	30S
Storage temperature	-40-70℃	Workpressure	86kpa ～106kpa
Work current	≤50mA	Quality warranty period	One year
Service life	Two years	Case material	Aluminum alloy

Meterological Sensor

Name		Specifications and parameters
Weather sensor	Wind sensor	Equipment power supply: 10~30V DC Equipment power consumption: 360°:0.2W Working environment: -20℃~+ 60℃, 0%RH~80%RH Measurement range: 0-360 ° measurement Measuring accuracy: ± 1 ° Communication parameters: Default device address 1, Baud rate 4800 Output signal: RS485
	Wind speed sensor	Equipment power supply: 10~30V DC Power consumption of the equipment: 0.1W Wind speed accuracy: ± (0.2+0.3V) m/s V indicates the wind speed Range of measurement: 0~60m/s Resolution: 0.1m/s Start-up wind speed: ≤ 0.2m/s Response time: ≤ 0.5s Communication parameters: Default device address 1, Baud rate 4800 Output signal: RS485
	Temperature and humidity sensor	Temperature range: -40℃~80℃ Humidity range: 0%~100%RH Temperature accuracy: ± 0.5℃ (25℃) Humidity accuracy: ± 3%RH (5%RH~95RH,25℃) Power supply: 10~30V DC PM2.5/PM10 range: 0 ~ 1,000 ug/m³ Operating temperature: -20~+ 60℃, 0%RH~80RH Output signal: RS485

***Note: Number of parameters can be configured as per requirement.**

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