

## PARTICULATE MATTER ONLINE MONITORING SYSTEM ES80B ( $\beta$ -RAY METHOD)



Based On The Principle Of  $\beta$ -Ray Absorption, The Online Monitoring System Can Monitor PM2.5, PM10 And TSP, And Can Work Continuously Online 24H A Day To Monitor Noise And Meteorological Parameters. Monitoring Data And Equipment Status Can Be Uploaded To The Cloud Platform In Real Time, Real-Time, Intelligent And Other Characteristics, Especially Suitable For Outdoor Dust Monitoring;

### Features-Purpose Designed For Outdoors

Designed For Outdoor Use; Access The Air Quality Data For 24 Hours/365 Days; Adopting  $\beta$ -Ray Absorption Method, High Accuracy Of Particulate Matter Measurement, Accurate And Reliable Data; Color Industrial Touch Screen, Easy And Fast Operation; Support 4G Network Wireless Transmission Module; Able To Achieve More Than One Year Of Data Storage, Storage Space Can Be Expanded; Automatic Memory Of Sampling Data, Automatic Data Saving After Power Failure, And Self-Starting Sampling After An Incoming Call;

### Application Scenario



Street Intersections, Highways Etc;



Forest Fire Alarm, Agricultural Straw Burning;



Petrochemicals, Mining, Steel Mills, Oil Refineries;



Garbage Disposal, Tourist Attractions;



Residential Complexes, Schools, Hospitals;



Urban Ambient Air Quality Monitoring;

### Technical Index Main Parameters

Measurement Range	(0-1000) $\mu\text{g}/\text{m}^3$ (0-10000) $\mu\text{g}/\text{m}^3$
Resolution	0.1 $\mu\text{g}/\text{m}^3$
Minimum Detection Limit	$\leq 2\mu\text{g}/\text{m}^3$
Radioactive Source	Carbon-14 (C-14) (<100 microcurie) sealed source devices
Sampling Flow Rate	16.67 L/min
Sampling Flow Accuracy	$\pm 2\%$ (based on a constant flow rate of 16.7L/min)
Calibration Film Reproducibility	$\leq 2\%$ nominal value
Working Humidity	-20 $^{\circ}\text{C}$ ~ 50 $^{\circ}\text{C}$
Display Screen	7" color industrial touch screen
Data Transmission Method	RS485,LAN,4GLTE
Data Export	U-Disk export, SD Card storage
Data Protocol	MODBUS Agreement, HJ212-2017 Agreement
Data Storage	Historical concentration data, system operation log, System fault alarm data for 1 year
Host Power Consumption	Less than 0.26KW (MAX)
Working Power	AC110-230V/50-60Hz

### Meteorological Technical Parameters

Temperature	Measuring Range: -20 ~ 50 $^{\circ}\text{C}$ Resolution: 0.1 $^{\circ}\text{C}$ Accuracy: $\pm 0.5^{\circ}\text{C}$	Humidity	Measuring Range: 0 ~ 100%RH Resolution: 0.1%RH Accuracy: $\pm 3\%$ RH
Wind Speed	Measuring Range: 0 ~ 60m/s Start Wind Speed: $\geq 0.5\text{m/s}$		Resolution: 1m/s Accuracy: $\pm 0.3\text{m/s}$
Wind Direction	Measurement Range: 0~360 $^{\circ}$ Start Wind Speed: $\geq 0.5\text{m/s}$		Resolution: $\pm 0.1^{\circ}$ Accuracy: $\pm 3^{\circ}$
Atmospheric Pressure	Measurement Range: 300 ~ 1100hpa Resolution: 1hpa		Accuracy: $\pm 0.5\text{hpa}$

### Meteorological Technical Parameters

Noise Technical Parameters	IEC61672:2002 Class 2 GB/T3785-2012 Level 2 Upgradable Class 1 sound Level	Humidity	Measuring Range: 0 ~ 100%RH Resolution: 0.1%RH Accuracy: $\pm 3\%$ RH
Measurement Range	30 ~ 130dB	Frequency Counting Rights	A、C、Z
Noise sensor principle: high-precision capacitive free-field microphone			

