Integrated Ambient Particulate Sampler

YQ-1114

Overview

The YQ-1114 collects total suspended particulate matter (TSP) and inhalable particulate matter (PM10 and PM2.5) from ambient air using filter-membrane gravimetry. Solution absorption and solid-phase adsorption collect toxic and harmful gases in ambient and indoor air. The brochure lists routine or emergency monitoring uses in environmental protection, health, labor, safety supervision, military, research and education.



Technical specifications

Parameter	Range / value	Resolution	Accuracy / error
Particulate sampling flow	15.0-130L/min	0.1L/min	±5%
Sampling flow	0.1-1.0L/min, 10-200ml/min; selectable	0.001L/min	±5%
Load capacity	At 100L/min, load capacity >5kPa		
Sampling time	1min-99h59min		
Data storage	9999 records		
Discharge duration	Five channels operating simultaneously, TSP load 2kPa: >6h (insulated box at room temperature)		
Charging time	<3h		
Weight	≤5kg		
Dimensions	(350*180*260)mm		

Highlights

- Universal tripod design.
- Plug-in cutter design.
- Built-in lithium battery >6H.
- Selectable 16.67/50/100L/min.
- Up to 5 channels, with selectable flow combinations.

Technical features

• Five air and particulate sampling channels can simultaneously collect particulate matter, fluorides and gaseous pollutants.
• Flow rates of four air-sampling channels can be selected.
• High-brightness 7-inch color touchscreen for outdoor use.
• Constant-flow, timed, interval and continuous sampling modes.
• Built-in lithium battery supports over 6h of continuous use without external power.
• Rain- and dust-resistant, antistatic unit for outdoor use.
• Lightweight precision-machined cutters with quick insertion.
• Power-loss memory records sampling progress and resumes sampling when power returns.
• Universal tripod design.
• Automatic software-data backup.
• BeiDou positioning, time synchronization and operation-log storage.
• Bluetooth printing of instrument data with anti-counterfeit printouts.
• Optional heating and cooling for temperature-controlled sampling.

Standards listed in the brochure

• HJ 1263-2022 - Ambient air: determination of total suspended particulates by gravimetry
• HJ 618-2011 - Ambient air: determination of PM10 and PM2.5 by gravimetry
• HJ 644-2013 - Ambient air: VOC determination by adsorption-tube sampling, thermal desorption and gas chromatography-mass spectrometry
• HJ 645-2013 - Ambient air: volatile halogenated hydrocarbons by activated-carbon adsorption, carbon disulfide desorption and gas chromatography
• HJ 656-2013 - Technical specification for manual gravimetric monitoring of ambient PM2.5
• HJ 93-2013 - Technical requirements and test methods for ambient PM10 and PM2.5 samplers
• HJ 583-2010 - Ambient air: benzene-series compounds by solid adsorption, thermal desorption and gas chromatography
• HJ 584-2010 - Ambient air: benzene-series compounds by activated-carbon adsorption, carbon disulfide desorption and gas chromatography
• JJG 943-2011 - Verification regulation for total suspended particulate samplers
• JJG 956-2013 - Verification regulation for air samplers

Standard accessories

• Main unit
• Tripod
• Aluminum case
• TSP/PM10 cutter
• Charger

Optional accessories

• Fluoride cutter
• PM2.5 cutter
• Bluetooth printer

Source and review notes

• The technical features mention a Bluetooth printer; the accessory list identifies it as optional.
• Specifications and standards have not been independently verified.
• English translation has not received native-speaker technical review.