Professional Solution Provider of Laboratory/Pharma Equipment

Water Purification System	Biofermentation Solution	Glassware Washer
Freeze Dryer/Lyophilizer	Shaking Incubator/Shaker	Autoclave
Biosafety Cabinet/Laminar Flow	Cold Storage Solution	Climate Chamber

INNOVA

Qingdao Innova Bio-Meditech Co., Ltd.

Add. : No. 176 Jufeng Road, 266199, Qingdao, China

Tel. : +86 532 8789 0634

Email: info@innobiomed.com

Web: www. innovabiomed. com

INNOVA

The passion for science

Sulfur Dioxide Analyzer

SO₂

12.34

INNOVA

Air quality detector

——Environment monitoring

Sulfur Dioxide Analyzer

IGAS 100 sulfur dioxide analyzer is a gas analyzer product for dilution measurement in ambient air quality monitoring and continuous emission monitoring system (CEMS). It is based on the technical principle of ultraviolet fluorescence method. Combined with advanced microprocessing technology, it provides accurate and reliable measurement and analysis of SO2 at nmol/mol~umol/mol(ppb~ppm) level.

SO2

Features

- This product has the characteristics of high measurement accuracy, good reliability, fast corresponding time, easy operation and wide application range.
- The analyzer supports manual calibration and automatic calibration, the calibration procedure can be set by the user, and supports remote control and remote upload.
- Real-time measurement data and instrument status parameters can be automatically transmitted and queried, which can facilitate relevant departments to timely and accurately grasp the air quality status.

Specification

Argument	Index
Parameter range	Min: (0~100) nmol/mol(ppb) Max: (0~20) umol/mol(ppm)
unit	nmol/mol(ppb), umol/mol (ppm), ug/m3, mg/m3(optional)
Zero noise	<0.2 nmol/mol (ppb)(RMS)
Range noise	0.5% of readings above 50 nmol/mol(ppb)
Lower detection limit	0.4 nmol/mol(ppb)
Zero drift (24h)	<0.5 nmol/mol(ppb) /24hours
Zero drift (7days)	<l nmol/mol(ppb)/7days
Range drift	<1%F.S./ (7days)
Linearity	<1%F.S.
Repeatability	<1%
Fluctuation error	<1%
Response time	<120 s to 90%
Sample gas flow	(500J±50) sccm
Operating temperature	5℃~40℃
Working humidity	(0~95)%RH
Instrument size	178 mm×432 mm×620 mm
Weight	<20kg
Power supply	(200~240)V AC

Nitrogen Oxide Analyzer

IGAS 200 nitrogen oxide analyzer is a gas analyzer product developed for dilution measurement in ambient air quality monitoring and continuous emission monitoring system (CEMS). It is based on the technical principle of chemiluminescence method, combined with advanced micro-processing technology, equipped with built-in converter and ozone generation module. Provide accurate and reliable nmol/mol~µmol/mol(ppb~ppm) level NO/NO2/NOx measurement analysis.

Features

- This product has the characteristics of high measurement accuracy, good reliability, fast corresponding time, easy operation and wide application range.
- The analyzer supports manual calibration and automatic calibration, the calibration procedure can be set by the user, and supports remote control and remote upload.
- Real-time measurement data and instrument status parameters can be automatically transmitted and queried, which can facilitate relevant departments to timely and accurately grasp the air quality status.

Specification

Argument	Index
Parameter range	Min: (0~100) nmol/mol(ppb) Max: (0~20) umol/mol(ppm)
unit	nmol/mol(ppb), umol/mol (ppm), ug/m3, mg/m(optional)
Zero noise	≤0.2 nmol/mol(ppb)(RMS)
Range noise	≤0.5% above 50 nmol/mol(ppb) or 0.2 nmol/mol(ppb)
Lower detection limit	0.4 nmol/mol(ppb)
Zero drift (24h)	<0.5 nmol/mol(ppb)
Zero drift (7days)	<1 nmol/mol(ppb)
Range drift	<1%F.S.
Linearity	<1%F.S.
Repeatability	Less than 1% of the reading
Fluctuation error	<80 s to 95%
Response time	(400 soil 50) scem
Sample gas flow	<30 min to 95%
Operating temperature	5 ~ 40 ℃
Working humidity	(0~95)%RH
Instrument size	178 mm×432 mm×630 mm
Weight	<18kg
Power supply	(200~240) VAC

CO analyzer

lyzer is a gas analyzer product for dilution measurement in ambient air quality monitoring and continuous emission monitoring system (CEMS). Based on the technical principle of non-spectral infrared method related to gas filtration, combined with advanced microprocessing technology, it provides accurate and reliable ppm CO measurement and analysis

Features

- This product has the characteristics of high measurement accuracy, good reliability, fast corresponding time, easy operation and wide application range.
- The analyzer supports manual calibration and automatic calibration, the calibration procedure can be set by the user, and supports remote control and remote upload.
- Real-time measurement data and instrument status parameters can be automatically transmitted and queried, which can facilitate relevant departments to timely and accurately grasp the air quality status.

Specification

Argument	Index
Parameter range	Minimum (0~50)μmol/mol(ppm), maximum (0~1000)μmol/mol(ppm)
unit	nmol/mol(ppb), μmol/mol(ppm), μg/m3, mg/m3(optional)
Zero noise	0.02μmol/mol (ppm)
Range noise	0.04μmol/mol (ppm)
Lower detection limit	0.4 nmol/mol (PPB)
Zero drift (24h)	< 0.1 umol/mol (PPM)
Zero drift (7days)	< 0.5 umol/mol (PPM)
Range drift	< 0.5 umol/mol (PPM)
Linearity	<1%F.S.
Repeatability	<1%
Fluctuation error	<1%
Response time	T90<60 s
Sample gas flow	(800±80) cc/min
Operating temperature	5℃~40℃
Working humidity	(0~95)%RH
Instrument size	178 mm×432 mm×597mm
Weight	<15kg
Power supply	(200~240)V AC/(45~55) Hz

Ozone analyzer

IGAS 400 ozone analyzer is a gas analyzer product developed for dilution measurement in ambient air quality monitoring and continuous emission monitoring system (CEMS). It is based on the technical principle of ultraviolet absorption method, combined with advanced microprocessing technology. Provide accurate and reliable measurement and analysis of O3 in nmol/mol~μmol/mol (ppb~ppm) class.

Features

- This product has the characteristics of high measurement accuracy, good reliability, fast corresponding time, easy operation and wide application range.
- The analyzer supports manual calibration and automatic calibration, the calibration procedure can be set by the user, and supports remote control and remote upload.
- Real-time measurement data and instrument status parameters can be automatically transmitted and queried, which can facilitate relevant departments to timely and accurately grasp the air quality status.

Specification

Argument	Index
Parameter range	Min: (0~100) nmol/mol(ppb) Max: (0~20) umol/mol(ppm)
unit	nmol/mol (ppb), umol/mol(ppm), ug/m3, mg/m3(optional)
Zero noise	<0.2 nmol/mol (ppb)(RMS)
Range noise	0.5% of readings above 50 nmol/mol(ppb)
Lower detection limit	0.4 nmol/mol (PPB)
Zero drift (24h)	< 0.5 nmol/mol (PPB) / 24 hours
Zero drift (7days)	<1nmol/mol(ppb)/(7days)
Range drift	<1%FS/ (7days)
Linearity	<1%FS
Repeatability	< 1%
Fluctuation error	< 1%
Response time	<120 s to 90%
Sample gas flow	(500+50) sccm
Operating temperature	5℃ to 40℃
Working humidity	(0~95)%RH
Instrument size	178 mm×432 mm×620 mm
Weight	<20kg
Power supply	(200~240) VAC

Zero Gas Generator

IZERO-air can provide clean and dry zero-gas air after internal multi-stage water removal, hydrocarbon removal and impurity removal. The equipment is mainly used for zero calibration of ambient air quality detection systems and instruments, and can also be used as penetrant tube furnace gas washing or FID analysis.

Features

The zero gas generator components include an external oil-free air compressor, a pressure flow controller, a water removal system, SO2, NO, NO2, 03 and H2S removers, CO and hydrocarbon removers. Zero gas generator based on catalytic combustion reaction and molecular sieve adsorption filtration principle, remove SO2, NO, NO2, 03, H2S.cO, NH3, hydrocarbons, particles in the air, output dry and clean air.

Specification

Argument	Index
Zero gas output	At 0.2MPa, the flow rate can reach 20 standard liters per minute
Maximum output pressure	0.45 MPa
Dewpoint	-20℃, the flow rate reaches 15 standard liters per minute
Output concentration	SO2 < 0.5 PPB
	H2S < 0.5 PPB
	NO < 0.5 PPB
	NO2 < 0.5 PPB
	O3 < 0.5 PPB
	CO < 0.025 PPM
	CH < 0.02 PPM
Power supply	220V~240V, 50Hz, 5A
Weight	14kg
Specification	53.5 cm x 42.5 cm x 17.5 cm
Temperature	5℃ ~ 40℃

Multi-gas dynamic calibrator

IMulti-gas is a calibration instrument for online atmospheric monitoring and industrial control field online analysis of high-precision gas analyzer. It is a precision gas calibration instrument based on microprocessor control. It is mainly used for calibration of environmental air quality continuous automatic online monitoring system analyzer, and can also be used for quality control of laboratory and gas analyzer production.

Features

The basic unit of the dynamic calibrator is two high-precision mass flow controllers, and modules such as ozone generator, ozone photometer and penetration furnace can also be selected according to user needs.

Calibrator uses two high precision mass flow control device to match the standard gas, and produces nmol/mol~μmol/mol (ppb~ppm) grade standard gas through the method of thin release. The instrument can use up to three standard gases at the same time.

The multipoint linearization curve is used to control the ozone generator to ensure repeatability of the ozone concentration.

Selectable photometer accessories enable precise control of the ozone generator during calibration and meteorological titration (GPT). Ozone generators produce ozone standard gas by gas phase titration in the internal reaction with NO standard gas to produce NO2 gas.

Specification

Item	Argument	
Basic unit	Dilution gas flow range	(0 to 5) SLPM, (0 to 10)SLPM, and (0 to 20) SLPM Optional
	Standard gas flow range	(0 to 50) sccm, (0 to 100) sccm, and (0 to 200) sccm Optional
	Flow control accuracy	1%F.S.
	Flow linearity	Plus or minus (0.5 ~ 1) % F.S.
	Flow control repeatability	Plus or minus 0.2% F.S.
	Standard air inlet	three
	Dilution gas inlet	one
	Response time	60 s (98%)
Ozone generator	Outlet	0.1 μmol/mol ~6 μmol/mol(ppm)
Complete machine	Power source	100 V AC ~240 VAC; 45 Hz~55 Hz
	Instrument size (HxW×D)	178 mm×432 mm×620mm
	weight	<15kg(basic unit)
		<20kg (including ozone generator and ozone photometer)
	Working temperature	5°C~40°C
	Working humidity	0~95%RH
	Communication mode	Support for RS232, RS485 and Ethernet communication (optional)