EM-5 Flue Gas Analyzer(Regular Range)

EM-5 flue gas analyzer is a self-developed gas analysis product for domestic and overseas environmental and industrial online monitoring. The analyzer is based on DOAS and chemometric algorithms PLS), being able to measure SO_2, NO, NO_2, O_2, NH_3, CO, CO_2, Cl_2, O_3, H_2S, HCl, CH_3I, etc.. With high accuracy and reliability, low operating costs, fast response time, wide measurement range and application fields, it has achieved even surpassed similar products home and abroad.

Specification

Measuring Technique: DOAS(SO_2, NOx), Electrochemistry(O_2)
Measuring Range: 0~300~3000ppm(SO_2, NOx), 0-25%(O_2)
Linearity Error: < ±1.5%F.S.
Repeatability: < ±0.5%
Zero Drift: < ±2%F.S./7d
Span Drift: < ±2%F.S./7d
Response Time: < 10s(T_{90})
Warm-up Time: None

Relay Output: 14
Binary Input: 6
Analog Output: 5×4 -20mA
Analog Input: 3×4 -20mA
Digital Comm. : RS485/RS232/GPRS
Enclosure Rating: IP42
Working Temp.: -10℃~+40℃
Working Humidity: 0~95%RH

Feature

Low detection limit and temperature-drift
Getting NOx by directly measuring NO and NO_2 without NO_2→NO converter
No interference of particulate matter, moisture and other factors
No optical moving parts, high reliability, no interference to the measurement by field

Application

Apply to exhaust emission monitoring and process control such as coal-fired power plants, garbage power plant, cement, glass, lime factory, ceramics factory, sinter, coke oven, desulfurization, denitration technology.

GA-5000 Flue Gas Analyzer(Ultra-low Range)

GA-5000 flue gas analyzer is a self-developed gas analysis product of multiple return light path. The analyzer is based on DOAS and chemometric algorithms (PLS), able to measure SO_2, NO, NO_2, O_2, NH_3, CO, CO_2, Cl_2, O_3, H_2S, HCl, CH_3I, etc. With high accuracy and reliability, low operating costs, fast response time, wide measurement range and application fields, it has achieved even surpassed similar products home and abroad.

Specification

Measuring Technique: DOAS(SO_2, NOx), Electrochemistry(O_2)
Measuring Range: 0~20~100ppm(SO_2, NOx), 0~25%(O_2)
Linearity Error: < ±1.5%F.S.
Repeatability: < 0.5%
Zero Drift: < ±2%F.S./7d
Measuring Range Drift: < ±2%F.S./7d
Response Time: < 10s(T_{90})
Warm-up Time: None

Relay Output: 14
Binary Input: 6
Analog Output: 5×4 -20mA
Analog Input: 3×4 -20mA
Digital Comm. : RS485/RS232/GPRS
Enclosure Rating: IP42
Working Temp.: -10℃~+40℃
Working Humidity: 0~95%RH

Feature

Low detection limit and temperature-drift
Getting NOx by directly measuring NO and NO_2 without NO_2→NO converter
No interference of particulate matter, moisture and other factors
No optical moving parts, high reliability, no interference to the measurement by field
Vibration Using return light path and high quality spectrograph, the minimum measuring range is 0-20ppm, lowest detection limit is 200ppb

Application

Apply to exhaust emission monitoring and process control such as coal-fired power plants, garbage power plant, cement, glass, lime factory, ceramics factory, sinter, coke oven, desulfurization, denitration technology and etc.

GA-5000M UV DOAS Analysis Module

It is used to measure gases of low level.The core component is white pool gas cell. It can achieve multiple return and adjust the reflection times to extend optical path according to the needs. The effective optical path is long. Compared with the normal gas cell, the structure is more compact. The effective optical path increases more than 10 times. It has higher accuracy, higher reliability, faster response time, longer service life and etc.

Specification

Linearity Error: < ±2%F.S.
Repeatability: ≤0.5%
Stability: ≤2%
Response Time: < 25s(T_{90})
Zero Drift: < ±2%F.S./7d
Span Drift: < ±2%F.S./7d

Feature

Using multiple return absorption gas cell with compact structure and long effective optical path
High accuracy, measuring various gases at the same time
No moving parts, high reliability
Small volume, light weight, convenient to carry and onboard using

Application

Apply to exhaust emission monitoring and process control such as coal-fired power plants, garbage power plant, cement, glass, lime factory, ceramics factory, sinter, coke oven, deSOx, deNOx technology and etc.

EM-5P Portable Flue Gas Analyzer

EM-5P portable gas monitoring system mainly consists of gas monitoring sensors(SO_2, NOx, CO, CO_2), sample conditioning unit, sampling unit and heat tracing pipe. The main structural parts include gas sampler and pipeline, sample preconditioning unit and gas analyzer. It is equipped with android touch screen, having big data storage; with multi-port output; It also has a micro printer for real-time monitoring data.

Specification

Principle: UV DOAS (So_2, NO), electrochemistry(O_2), electrochemistry/TDLAS(CO), infrared(CO_2)
Range: 0~200~2000mg/m^3(SO_2, NO), 0~25%(O_2) 0~625mg/m^3(CO), 0~65%(CO_2)
Linearity Error: ≤±5%F.S.
Repeatability: ≤2%
Zero Drift: ≤±2%F.S./24h
Span Drift: ≤±2%F.S./24h
Warm-up Time: None(cold dry), hot wet (45min)
Relay Output: 14
Digital Input: 6
Analog Output: 5×4-20mA
Analog Input: 3×4-20mA
Digital Comm. : RS232/USB
Enclosure Rating: IP42
Working Temp.: -10℃~+40℃
Working Humidity: 0~95%RH

Feature

Low detection limit and temperature-drift
Getting NOx by directly measuring NO and NO_2 which without NO_2→NO converter
Not affected by the interference of background elements such as dust and H_2O
No optical moving parts, high reliability, no interference to the measurement by field
Good portability and mobility

Application

Apply to multi-level environmental monitoring station, the third party inspection agencies, online analysis instrument production/sales/operations business who do the acceptance of environmental protection, emergency detection, instrument calibration, polluters audits to the industrial flue gas emissions occasions of coal-fired power plants, gas power plants, iron and steel plants, and laboratory gas test, etc.

FT-3000 FTIR Gas Analyzer

FT-3000 is a gas online continuous monitoring analyzer based on fourier transform infrared spectroscopy, monitoring emission gas of SO_2, NOx(NO, NO_2),CH_4, NH_3, HCl, HF, CO, CO_2, O_2, H_2O, and other components at the same time, and can extend to measure other components such as SO_3, N_2O, etc. according to user demand. Analyzer has high measurement precision, high range dynamics, low detection limit, is suitable for small emission monitoring.

Specification

SO_2: 0~75mg/m^3, NO: 0~200mg/m^3
NO_2: 0~40mg/m^3, NOx: 0~200mg/m^3
CH_4: 0~20mg/m^3, NH_3: 0~10mg/m^3
HCl: 0~15mg/m^3, HF: 0~10mg/m^3
CO: 0~75mg/m^3, CO_2:(0~20)%
H_2O: (0~40)%, O_2: (0~25)%
Zero Drift: 2%F.S./7d
Span Drift: 2%F.S./7d
Linearity Error: 2%F.S.

Feature

Measuring SO_2, NOx(NO, NO_2), CH_4, NH_3, HCl, HF, CO, CO_2, O_2, H_2O, and other components at the same time, and can extend to measure other components such as SO_3, N_2O, etc.
The entire high temperature heating to prevent component loss of gas pollutant compositions from condensation
A white cavity design, high signal-to-noise ratio, measuring optical path up to 13m, low detection limit, high range dynamics, meet the requirements of ultra-low emission monitoring
Using the least squares method and the PLS algorithm, selecting the appropriate wavelength range, can effectively eliminate the interference of H_2O and other components
Interior cavity mirror of gas cell is plated with gold, high reflectivity. Protect gas purging, long maintenance intervals

Application

Waste incineration power plant, ultra-low emission monitoring, solid waste treatment plant, marine exhaust emission

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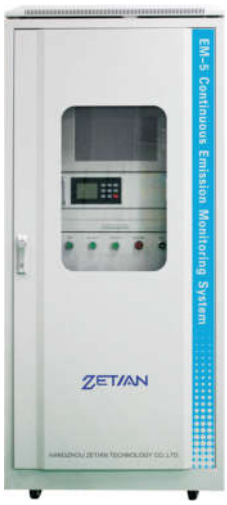
EM-5-CD Continuous Emission Monitoring System

CEMS has four basic parts: the dust monitoring subsystem, gaseous pollutants monitoring subsystem, flue gas parameter monitoring subsystem, system control and data acquisition and processing subsystem. It can monitor SO_2, NOx, O_2, dust, temperature, pressure, flow rate and other parameters such as HCl, HF, CO, CO_2 for specific occasions. After dedusting by sampling probe, tracing by heating pipe, dehydration and cooling by two-step condensing, the measured gas is analyzed by the heated gas analysis module (TDLAS and DOAS technique).It is an effective solution to solve the technical problem that large humidity variation of the waste incineration and other occasions lead to measuring data fluctuation.



Specification

SO_2: 0~300~3000ppm, O_2: 0~25%
NOx: 0~300~3000ppm, Humidity: 0~40%
Dust: (0-200mg/m^3)~(0-10g/m^3)
Flow rate: 0~40m/s(customizable)
Temp.: 0~300℃(customizable)
Pressure: -10kPa~+10kPa(customizable)
Size: 800mm×600mm×1800mm
Heating Temp.: 120℃~180℃
Enclosure Protection: cabinet IP42, others IP65
Power Supply: 220VAC, 4000W
Working Temp.: -10℃~+40℃
Working Humity: 0~95%RH(non-condensing)

Feature

Fast dehydration and cooling by two-step condensing, reducing contact time of air and water, lower SO2 loss
Analyzer uses micro-heating technology, reducing maintenance cycle of lens
Fast sampling by loop sampling pumps, shorten response time
Dehydration and dedust by multi-stage filtration, high reliability
Calibration for whole precess can be realized

Application

Application for exhaust emission monitoring and process control such as coal-fired power plants, garbage power plant, cement, glass, lime factory, ceramics factory, sinter, coke oven, deSOx, deNOx technology

SCEM-5 Continuous Emission Monitoring System(Ultra-low hot wet)

SCEM-5 has four basic parts: the dust monitoring subsystem, gaseous pollutants monitoring subsystem, flue gas parameter monitoring subsystem, system control and data acquisition and processing subsystem. It can monitor SO_2, NOx, O_2, dust, temperature, pressure, flow rate and other parameters such as HCl, HF, CO, CO_2 for a particular occasion. The detection limit is low to 1mg/m^3, fully qualified the measurement technology index of ultra-low emission monitoring occasions and is fully qualified for the newest laser forward scattering dust monitor is suitable for the occasion such high wet flue gas, light-leaking chimney, ultra-low dust emission and so on.

Specification

SO_2: 0~20~100ppm, O_2 : 0~25%
NOx: 0~20~100ppm, Humidity: 0~40%
Dust: (0-10mg/m^3)~(0-50mg/m^3)
Flow Rate: 0~40m/s(customizable)
Temperature: 0~300℃(customizable)
Pressure: -10kPa~+10kPa(customizable)
Size: 800mm×600mm×1800mm

Heating Temp.: 120℃~180℃
Enclosure Rating: cabinet IP42, others IP65
Power Supply: 220VAC, 5000W
Working Temp.: -20℃~+50℃
Working Humity: 0~95%RH(no condensation)
Compressed Air Requirement: (0.4-0.8)MPa, 0.25m^3/min, clean, without oil or water

Feature

Simple system structure, no moving parts such as diaphragm pumps and peristaltic pump, high reliability
Self-developed core module and algorithm
Compact structure, convenient to transport and installation
Calibration for whole precess can be realized

Application

Application for exhaust emission monitoring and process control such as coal-fired power plants, garbage power plant, cement, glass, lime factory, ceramics factory, sinter, coke oven, deSOx, deNOx technology

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EM-5-HW Continuous Emission Monitoring System

CEMS has four basic parts: the dust monitoring subsystem, gaseous pollutants monitoring subsystem, flue gas parameter monitoring subsystem, system control and data acquisition and processing subsystem. It can monitor SO_2, NOx, O_2, dust, temperature, pressure, flow rate and other parameters such as HCl, HF, CO, CO_2 for a particular occasion. After dedusting by sampling probe,tracing by heating pipe, the measured gas is analyzed by the hot gas analysis module (TDLAS and DOAS technique). It is an effective solution to the technical problem that absorption of SO_2 by condensation water leads to low measuring data. Especially in low concentration measurement occasions, it has incomparable advantages.

Specification

SO_2: 0~300~3000ppm, O_2 : 0~25%
NOx: 0~300~3000ppm, Humidity: 0~40%
Dust: (0-200mg/m^3)~(0-10g/m^3)
Flow Rate: 0~40m/s(customizable)
Temperature: 0~300℃(customizable)
Pressure: -10kPa~+10kPa(customizable)
Size: 800mm×600mm×1800mm

Heating Temp.: 120℃~180℃
Enclosure Rating: cabinet IP42, others IP65
Power Supply: 220VAC, 5000W
Working Temp.: -20℃~+50℃
Working Humity: 0~95%RH(no condensation)
Compressed Air Requirement: (0.4-0.8)MPa, 0.25m^3/min, clean, without oil or water

Feature

All the indexes are measured in the condition of high temperature, avoiding low measuring data which resulted from the absorption of SO_2 by condensation water
Simple system structure, no moving parts such as diaphragm pumps and peristaltic pump, high reliability
Self-developed core module and algorithm
Compact structure, convenient to transport and installation
Calibration for whole precess can be realized

Application

Application for exhaust emission monitoring and process control such as coal-fired power plants, garbage power plant, cement, glass, lime factory, ceramics factory, sinter, coke oven, DeSOx, DeNOx technology

EM-5 Continuous Emission Monitoring System(Dilution method)

EM-5 has four basic parts: the dust monitoring subsystem, gaseous pollutants monitoring subsystem, flue gas parameter monitoring subsystem, system control and data acquisition and processing subsystem. It can monitor parameters such as SO_2, NOx, O_2, dust, temperature, pressure and flow rate. Measured gas the passes filter in sampling probe for dust removal; is diluted by probe as fixed ratio and then enters the analyzer via sampling pipeline. By adopting ultraviolet fluorescence method (SO_2) and chemiluminescent method (NOx), this analyzer can precisely measure gaseous pollutants at ppb level. The diluted gas for flue sample gas should be high dehumidification and dedusting. After flue sample gas being diluted as fixed ratio, the dew point of sample gas is around -30℃. Thus, no heat tracing is needed for whole sampling pipeline. It effectively solves the technical problem that the measurement result of SO_2 is on the low side for condensation method. Also, it avoids the high operation cost and hidden danger of the heat tracing of hot wet method.

Specification

SO_2 : 0~2000ppm(customizable)
NOx: 0~2000ppm(customizable)
O_2: 0~25%
Humidity: 0~40%
Dust: (0-200mg/m^3)~(0-10g/m^3)
Flow Rate: 0~40m/s(customizable)
Temperature: 0~300℃(customizable)
Pressure: -10kPa~+10kPa(customizable)

Size: 800mm×800mm×2000mm
Probe Temp.: 120℃~180℃
Enclosure Rating: cabinet IP42, others IP65
Power Supply: 220VAC, 3000W
Working Temp.: -10℃ ~ +45℃
Working Humity: 5%~95%RH(no condensation)
Compressed Air Requirement: (0.4~0.8)MPa, clean, without oil

Feature

The whole process calibration and the end calibration can be realized
No heat tracing humidity removal is needed for flue gas
Telfon is used for heat tracing pipe. No heat tracing is needed for whole process that saves cost and avoids hidden danger
Dilution monitoring system is applicable for the occasions which distance between application point and cabinet over 70 m
Ultraviolet fluorescence method and chemiluminescent method have obvious advantage for measurement of the gaseous pollutants at ultra low level

Application

Apply to exhaust emission monitoring and process control such as coal-fired power plants, garbage power plant, cement, glass, lime factory, ceramics factory, sinter, coke oven, desulfurization, denitration technology and etc.

EM-5Hg Stack Mercury Continuous Monitoring System

Based on Cold Vapor Atomic Fluorescence Spectrophotometer technology, we have developed EM-5Hg stack mercury continuously monitoring system to detect the real time concentration of emission mercury and its cumulate emission rate. It is able to monitor gaseous elemental mercury, ionic mercury and total gaseous mercury. Its detection limit is low to 0.05ug/m^3. This system is widely applied to measure mercury concentration in the tail gas of many industries, such as mercury minerals refining process, mercuric chloride catalyst recycling, coal-fired power plant and etc.

Specification

Technology: Cold atomic fluorescence technology
Range: 0~20μg/m^3~200μg/m^3(customizable)
Indication Error: ≤±5%
Repeatability: ≤±1%
Stability: ≤±1%/1h
Zero Drift: ≤±1%F.S.
Span Drift: ≤±1%F.S.

Size: 800mm×600mm×1800mm
Enclosure Rating: cabinet IP42, others IP65
Power Supply: 220VAC, 5000W
Working Temp.: -20℃ ~ +50℃
Working Humity: 0~95%RH(no condensation)
Compressed Air Requirement: 0.9MPa, clean, without oil

Feature

Adopting CV AFS technology with high measurement accuracy
Sampling untreated gas of large flow, strong resistance to adsorbability
Combining internal and external purge, long maintenance intervals
Real time monitoring the dilution ratio and reflecting true working condition
Mercury valence state catalyzed and converted at 800℃; Converting rate up to 95%

Application

Apply to the ammonia slip emission monitoring and process control of SCR or SNCR deNOx device such as coal-fired power plant, aluminium plant, steel mills, smelting, glass factory, garbage power plant, cement plant, chemical plant, etc.

GA-5000DN DeNOx Ammonia Slip Online Monitoring System

GA-5000DN is based on a tunable semiconductor laser absorption spectroscopy (TDLAS) technology principle, including three parts: pretreatment, gas analysis module and data processing and display. After dedusting by sampling probe, tracing by heating pipe, the measured gas is analyzed by the hot gas analysis module (TDLAS technique).It is an effective solution to the technical problem that ammonium salt crystallization plugs flow at low temperature, and that absorption of NH_3 by condensation water leads to low measurement precision, and that in situ system high dust attenuation light path leads to unmeasurable.

Specification

Technology: tunable semiconductor laser absorption spectroscopy (TDLAS)
Range: 0~20μmol/mol(customizable)
Linearity Error: ≤±1%F.S.
Zero Drift: ≤±1%F.S./7d
Span Drift: ≤±1%F.S./7d
Response Time: ≤120s
Analog Output: 4×4-20mA,4×digital output
Digital Comm. : RS232/GPRS
Power Supply:(220±15%)VAC, 5000W
Size: 600mm×285mm×1200mm

Feature

Single line spectrum technology avoid interference of background gas absorption, low detection limit, small scale drift
More than 220 ℃ heat tracing avoid ammonium salt crystallization and moisture dissolve and absorption
A high degree of automation, small amount of maintenance
Compact structure, easy to install

Application

Apply to the ammonia slip emission monitoring and process control of SCR or SNCR deNOx device such as coal-fired power plant, aluminium plant, steel mills, smelting, glass factory, garbage power plant, cement plant, chemical plant, etc.

GA-5000nao DeNOx Multiparameters Online Monitoring System

GA-5000nao (NH_3, NO, O_2) is based on a tunable semiconductor laser absorption spectroscopy (TDLAS) and ultraviolet difference absorption spectroscopy (DOAS) technology principle, including three parts: pretreatment, gas analysis module and data processing and display. After dusting by sampling probe, sampling by heating pipe, the measured gas is analyzed by the hot gas analysis module (TDLAS +DOAS technique). It is an effective solution to the technical problem that ammonium salt crystallization plugs flow at low temperature ,and that absorption of NH_3 by condensation water leads to low measurement precision, and that in situ system high dust attenuation light path leads to unmeasurable.

Specification

Technology: tunable semiconductor laser absorption spectroscopy (TDLAS)+ultraviolet difference absorption spectroscopy (DOAS) technology +zirconia
Range:
NH_3 0~10ppm~1000ppm
NO 0~50ppm~5000ppm
O_2 0~25%
Linearity Error: ≤±1%F.S.
Repeatability: ≤1%
Zero Drift: ≤±1%F.S./half year
Span Drift: ≤±1%F.S./half year
Response Time: ＜90s(T90)
Analog Output: 5×4-20mA
Analog Input: 3× 4-20mA
Digital Output: RS485/RS232/GPRS
Detection Limit: 0.1ppm(10m optical path)
Purge Gas: 0.4MPa ~ 0.8MPa N_2, clean air

Feature

Single line spectrum technology avoid interference of background gas absorption, low detection limit, small scale drift
More than 220 ℃ heat tracing avoid ammonium salt crystallization and moisture dissolve and absorption
Compact structure, easy to install, high degree of automation, small amount of maintenance
Multi-parameter integrated on the same system, measured at the same time, low cost

Application

Apply to the ammonia escape emission monitoring and process control of SCR or SNCR deNOx device such as coal-fired power plant, aluminium plant, steel mills, smelting, glass factory, garbage power plant, cement plant, chemical plant, etc.

GCOM-3000 Volatile Organic Compounds Online Analyzer

GCOM-3000 is a VOCs monitoring product which use international mainstream chromatographic methods. It can monitor Organic pollutant gases such as methane, the total hydrocarbon, non methane total hydrocarbon, low-carbon aldehyde ketone, benzene series(benzene, toluene, xylene, ethyl benzene, isopropyl benzene) and part of halogenated hydrocarbons by using FID detector and high performance chromatographic separation column. The pneumatic heating box is designed inside the analyzer which can solve the problem of the measured results is low under the certain high temperature conditions.

Specification

Method: GC-FID
Range: 0.05ppm~1000ppm(CH_4)
Distinguishability: 0.001ppm
Qualitative Repeatability: $RSD_7 \leq 1.0\%$
Quantitative reproducibility: $RSD_7 \leq 1.0\%$
Range Drift: ≤3.0%(4h)
Oven temperature stability: ≤0.5℃
Meas.Period: 2mins~30mins(the time will change according to different component separation columns)
Size: 483mm×266mm×560mm
Display: touch LCD screen
Comm. Output: 10/100M ethernet port , RS232
Comm. Protocol: Modbus-RTU/TCP
Power Supply: 220VAC, 50Hz~60Hz, 900W

Feature

After each sample injection, analyzer automatically blows the chromatographic column to speed up the component sieving and analysis
Gas line is inert processed to avoid the adsorption and residue of samples on the pipe wall
Software in addition to the built-in default analysis method, also allows the user to free configure analysis process and methods
Configuration supports multiple detectors which can be used for complex sample analysis at the same time and can improve the ability of analysis
Support TCP/IP network remote control

Application

Apply to emissions of volatile organic compounds monitoring by the end of the manufacturing industry such as crude processing, textile and dyeing, chemical and pharmaceutical, metal smelting, etc.

GCOM-3000 Volatile Organic Compounds Online Monitoring System

GCOM-3000 VOCs online monitoring system has three basic parts: the VOCs monitoring subsystem, flue gas parameter monitoring subsystem, system control and data acquisition & processing subsystem. It can monitor Organic pollutant gases such as CH_4, THC, NMHC, low-carbon aldehyde ketone, Benzenes (benzene, toluene, xylene, ethyl benzene, isopropyl benzene) and some of halogenated hydrocarbons. It can also measure the parameters such as humidity, temperature, pressure and flow rate of the flue gas. After dedusting by sampling probe, through heating pipe, dehydration and cooling by two-step condensation, the measured gas is analyzed by the heated gas analysis module (GC-FID). For the occasion of high boiling point organic pollutant gas monitoring, it can effectively avoid the absorption loss in the process of sample collection and transmission, also make sure the excellent performance and stability in sample collection, analysis, data upload and maintain procedures.

Specification

Range: 0~1000ppm (customizable)
Temperature: 0℃~300℃(customizable)
Flow Velocity: 0 m/s~40m/s (customizable)
Pressure: -10kPa~+ 10kPa (customizable)
Size: 800mm×800mm×2000mm
Heating Temperature: 120℃~180℃
Enclosure Protection: cabinet IP42
Comm. output: RS485/RS232(customizable)
Power: 220VAC, 4000W
Working Temperature: -10℃~+45℃
Working Humidity: 5%~95%RH(non-condensing)
Compressed Air Requirement: (0.4~0.8)MPa, clean, without oil

Feature

Sampling and analysis gas path have automatic control device with independent back blowing. It can overcome the effect of sample gas residue and lag analysis
Analysis is heat traced all the way to avoid the condensing and loss of high boiling point sample in gas path
Compact structure, convenient to use and maintenance, high reliability

Application

Apply to manufacturing industry such as crude processing, textile and dyeing, chemical and pharmaceutical, metal smelting, etc.

PT-500H Detachable Integration Monitor of Temp., Press. and Flow

PT-500 is designed for low flow rate (2m/s~5m/s) applications. The instrument uses precision micro-differential pressure/static press. sensor and unique pitot tube structural design, combining with auto. cal. and cleaning. It can be widely used for real-time and continuous measurements of flue gas temp., press., and flow rate as well as flow quantity.

Specification

Flow: 0~15.5m/s, 0~40m/s (customizable)
Temperature: 0~300℃, 0~800℃
Pressure: -10kPa~+10kPa(customizable)
Measuring Accuracy: ±2%F.S.
Response time: < 1s
Signal Output: 3×4-20mA, 1×RS485, 1×RS232
Material of Pitot Tube: 316L steel, PTFE (optional)
Limit of Differential Press. Transmitter: 1.0MPa

Feature

Ultra-high-precision pressure sensor achieves the measurement of low-flow(2m/s)
LCD operating unit provides good human-machine interaction interface
Settable timing backblow time, velocity field parameters and pitot tube coefficient
Overpressure protection effectively avoids pressure sensor being damaged and reducing operating costs
Strong protection for signal output

Application

Apply to velocity ,temperature, pressure of high temperature, humidity and dusty gas in a variety of boiler, furnace flue and mine exhaust pipes.

HM-100 Moisture Analyzer

Moisture analyzer is also known as moisture or dew point analyzer for measuring pollutant emissions flue gas humidity by which converting wet gas concentration to dry gas concentration, also can be used for industrial on-line moisture monitoring. HM-100 can be installed directly through the flange to the flue or chimney. Signal of humidity and temperature output is through the 4-20mA or RS232.

Specification

Humidity: 0~40%Vol , 0~100%Vol
Temperature: 0~180℃
Accuracy: ±2%F.S.
Response Time: < 6s(T_{90})
Limit of Flue Gas Temp.: < 180℃
Working Temperature：-10℃~+55℃
The Life of Humidity Capacitor： > 5 years
Signal Output: 2×4-20mA(load 500Ω) , 1× RS232
Humidity Alarm Output：2 relay output, Stem node capacity 125VAC, 0.5A
Power：220VAC, 40W

Feature

Imported core components , high performance, high reliability
Probe heated to prevent sensor damaged by condensation
Numeric processing, strong anti-interference

Application

Apply to the detection of medium humidity, it can be widely used in the measurement and control process of printing and dyeing, steaming, drying, tobacco, wood, paper industry humidity; chemicals, pharmaceuticals, fibers, textile industry; tobacco, vegetable, food processing, etc.. At the same time, it is also available for the monitoring and control of soot emission, flue gas deSOx and dedusting applications with CEMS.

HM-200 Moisture Analysis Module

HM-200 high temperature dry & wet oxygen transmitter is based on microprocessor as the core, with variable frequency ion type oxygen sensor as measuring unit. Heating pipes can be installed in the outlet of CEMS heating sampling pipes. Flue gas gets into HM-200 by diffusion mode. Signal of humidity and temperature output is through the 4-20mA or RS232.

Specification

Humidity: 0~40%Vol
Temperature: 0~300℃
Accuracy: 0~40% ±1%F.S.
Flue Gas Temperature: ＜300℃
Working Temperature: -10℃~+50℃
Sensor Life: > 2 years
Transmitter Life: > 5 years
Response Time: < 30s(T_{90})
Signal Output: 2×4-20mA (load 250Ω) , 1×RS232
External Inputs (2 groups): (9 ~ 28) VDC external control signal
Power: 24VDC, 30W ~ 31W, 35W(max) (heating)
Weight: approx. 2.25kg(net weight)

Feature

Imported core components, high performance, high reliability
Probe heated to prevent humidity capacitance and thermal resistance damaged by the flue condensate
Pioneered new way of tracing pipeline installation, convenient installation and maintenance

Application

Apply to the determination of medium humidity, it can be widely used in the measurement and control process of printing and dyeing, steaming, drying, tobacco, wood, paper industry humidity; chemicals, pharmaceuticals, fibers, textile industry; tobacco, vegetable, food processing, etc.. At the same time, it is also available for the monitoring and control of soot emission and flue gas deSOx and dedusting with CEMS.

LGT-350 Laser Moisture Analyzer

LGT-350 is a high precision moisture analyzer based on tunable diode laser absorption spectroscopy (TDLAS) technology. This product adopts imported diode laser as light source, modulates laser frequency by modulating the working current of diode laser intensity, the area of laser scanning slightly larger than absorption lines of measured gas. The laser intensity attenuates when the gas selected frequency is absorbed. The concentration of the measured gas can be obtained by detecting the attenuation of the laser intensity.

Specification

Linearity Error: ≤±1%F.S.
Span Drift: ≤±1%F.S./half year
Zero Drift: ≤±1%F.S./half year
Analog Output: 2× 4-20mA output
Analog Input: 2× 4-20mA input
Response Time: ≤1s(T_{90})
Digital Comm.: RS485/RS232/GPRS
Working Temp.: -20℃~+60℃
Purge Gas: (0.3~0.8)MPaN_2, clean air
Installation Method: in situ

Feature

Strong corrosion-resistant
High enclosure protection level
Easy to install and convenient
Simple operation, long service life and easy maintenance
Imported core components, high performance index and high reliability

Application

Apply to measurements of flue gas humidity of CEMS , it can be widely used in the measurement and control process of printing and dyeing, steaming, drying, tobacco, wood, paper industry humidity; chemicals, pharmaceuticals, fibers, textile industry; tobacco, vegetable, food processing, etc.. At the same time, it is also available for the humidity determination of high temperature environment such as ceramic drying kiln and electrode drying oven.

GSP-100 Sampling Probe

The unique sampling probe design is applied to a variety of working conditions (high temperature, high humidity, high dust, high corrosion, etc.), supported with a variety of sampling tube, filter, heating units, etc..It has the feature of large filtering area and capacity, good air tightness, high filtration precision, leak-proof design, low gas resistance; high precision temperature control, temperature overload protection, reliable operation, fast response, ease of installation and maintenance.

Specification

Sampling Temperature:≤600℃
Sampling Chamber Heating Temp.:120℃±10℃
Filtration Precision:2μm
Temperature Accuracy:±0.5℃

Working Temperature：-10℃～+60℃
Dielectric Strength：GB 6587. 7
Purge Gas: (0.4~0.8)MPaN_2, clean air

Feature

Titanium alloy filter provides high corrosion resistance in high humidity, high temperature environment
Unique internal structure design reduces effectively the dead space of the sample gas
Filter uses a sintered alloy to filter dust particles above 2μm and small gas resistance
Efficient inside and outside blowback structure design can effectively remove the dust, avoid congestion, reduce daily maintenance

Application

Apply to continuous acquisition of exhaust gas samples after the combustion process, typically high dust and moisture content of the sample gas collection in power plant flue gas, cement production process

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GSP-200 Sampling Probe(High-temperature)

GSP-200 high temperature sampling probe is an unique design product for the flue gas containing high dust and NH_3HSO_4 at temperatures below 190℃ crystalline solid cause clogging of piping in the field of escaping ammonia. It is applied to a variety of working conditions (high temperature, high humidity, high dust, high corrosion, etc.), supported with a variety of sampling tube, filter, heating units, etc..It has the feature of large filtering area and capacity, good air tightness, high filtration precision, leak-proof design, low gas resistance; high precision temperature control, temperature overload protection, reliable operation, fast response, ease of installation and maintenance.

Specification

Sampling Temperature: ≤600℃
Sampling Chamber Heating Temperature: (120±10)℃
Enclosure Protection: IP65
Filtration Precision: 2μm
Temperature Accuracy: ±0.5℃

Working Temp. : -10℃~+ 60℃
Insulation Resistance: ≥20MΩ
Leakage Current: ≤5mA
Dielectric Strength: GB 6587. 7
Purge Gas: (0.4~0.8)MPaN_2, clean air

Feature

Titanium alloy filter provides high corrosion resistance in high humidity, high dust environment
Unique internal structure design effectively reduces the dead space of the sample gas
Filter uses a sintered alloy to filter dust particles above 2μm and small gas resistance
Efficient inside and outside blowback structure design can effectively remove the dust, avoid congestion, reduce daily maintenance

Application

Apply to continuous acquisition of exhaust gas samples after the combustion process, typically high dust and moisture content of the sample gas collection in power plant flue gas, cement production process

GSP-300 Sampling Probe(Flame-proof)

GSP-300 is for the explosion-proof occasions. It is applied to a variety of working conditions (high temperature, high humidity, high dust, high corrosion, etc.), supported with a variety of sampling tube, filter, heating units, etc..It has the feature of large filtering area and capacity, good air tightness, high filtration precision, leak-proof design, low gas resistance; high precision temperature control, temperature overload protection, reliable operation, fast response, ease of installation and maintenance.

Specification

Sampling Temperature: ≤600℃
Sampling Chamber Heating Temp.: 120℃~220℃
Filtration Precision: 2μm
Temperature Accuracy: ±0.5℃
Working Temperature: -10℃~+60℃
Insulation Resistance: ≥20MΩ
Leakage Current: ≤5mA
Dielectric Strength: GB 6587. 7
Purge Gas: (0.4~0.8)MPaN_2, clean air

Feature

Titanium alloy filter provides high corrosion resistance in high temperature, high dust environment
Unique internal structure design effectively reduces the dead space of the sample gas
Filter uses a sintered alloy to filter dust particles above 2μm and small gas resistance
Efficient inside and outside blowback structure design can effectively remove the dust, avoid congestion, reduce daily maintenance

Application

Apply to continuous acquisition of exhaust gas samples after the combustion process, typically high dust and moisture content of the sample gas collection in power plant flue gas, cement production process

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DMS-100 Dust Monitor(Backword scattering)

It is a self-developed on-line dust monitoring device, which uses the mainstream technology of laser back scattering measurement with imported core components. DMS-100 is mainly used for all kinds of the continuous monitoring of the concentration of the particulate matter pollution emissions to achieve single point/multipoint continuous smoke detection, also can be equipped with continuous monitoring system (CEMS), provides real-time dust measurement data.

Specification

Range: 0~500mg/m^3, 0~10g/m^3 (customizable)
Indication Error: ≤±20%
Span Drift: ±2%F.S.
Enclosure Protection: IP66
Flue Diameter: 0.5m~15m (customizable)
Power: < 3W
Analog Output: 1×4-20mA, maximum load 800Ω, 2×4-20mA(optional)
Communication Interface: RS485(optional)
Working Temperature: -20℃~+45℃
Flue Gas Temp.: 300℃ (higher temperature need to be customized)
Human-computer Interaction: infrared remote control+large-screen LCD display

Feature

In-situ zeroing and span calibration
Automatic gain control function and temperature compensation
Smart appearance, ease of installation and daily maintenance
No influence from background
Support infrared remote control function

Application

Apply to the monitoring and control of soot emission, flue gas desulfurization and application of power generation boilers, industrial furnaces, industrial boilers in the thermal power, iron and steel metallurgy, petrochemical, chemical, cement, ceramics, waste incineration.

MS-1000 Dust Monitor(Backword scattering)

It is a self-developed on-line dust monitoring device, which uses the mainstream technology of laser back scattering measurement with imported core components. MS - 1000 is mainly used for all kinds of the continuous monitoring of the concentration of the particulate matter pollution emissions to achieve single point/multipoint continuous smoke detection, also can be equipped with continuous monitoring system (CEMS), provides real-time dust measurement data.

Specification

Flue Diameter: 0. 5m~15m (customizable)
Power: < 3W
Range: 0~500mg/m^3, 0~10g/m^3 (customizable)
Indication Error: ≤±20%
Span Drift: ±2%F.S.
Flue Gas Temp.: < 300℃ (higher temperature need to be customized)
Human-computer Interaction: upper-computer software
Analog Output: 1×4-20mA, maximum load 800Ω
Communication Interface: RS485, 2 relay outputs
Working Temperature: −20℃~+45℃

Feature

In-situ zeroing and span calibration
Automatic gain control function and temperature compensation
Smart appearance, ease of installation and daily maintenance
No influence from background

Application

Apply to the monitoring and control of soot emission and flue gas desulfurization and application of power generation boilers, industrial furnaces, industrial boilers in the thermal power, iron and steel metallurgy, petrochemical, chemical, cement, ceramics, waste incineration.

DMS-100 Dust Monitor(Including preprocessing system)

DMS–100 is an extractive dust monitoring system with high temperature heat tracing. It mainly adopts laser back scattering measurement technology with imported key components. Dust in the flue (stack) is extracted to measure by the high temperature heat tracing dust measuring module. It is not affected by water, measurement precision and etc.. It is applicable to low temperature and high humidity flue gas which is super clean emissions and wet deSOx.

Specification

Range: 0~50mg/m^3 (customizable)
Detection limit: 0.1mg/m^3
Indication Error: ≤±20%
Span Drift: ±2%F.S.
Enclosure Protection: IP54
Response time: 1s (optional)
Analog Output: 1×4-20mA, maximum load 800Ω
Communication Interface: RS485
Communication protocol: standard Modbus, customizable
Working Temperature: −20℃~+45℃
Flue Gas Temp.: < 300℃
Purge Gas: no water and no oil，≥0.4MPa，gas consumption 100L/min

Feature

Extractive monitoring system with high temperature heat tracing to make water gasification, prevent interference dust measurement from moisture
Jet pump of large diameter is adopted to avoid congestion caused by dust accumulation, long maintenance intervals
Continuous purging to protect the lens from being polluted

Application

Apply to dust monitoring in low temperature and high humidity conditions, the workshop dust monitoring

DMS-200 Dust Monitor

Different from DMS-100, DMS-200 is installed on the probe, access to the flue pipe through the probe directly to realize flue dust measurement, so it is possible to achieve very low detection limits. It is widely used in dust monitor of thermal power generation and other ultra-low emissions industries.

Specification

Range: 0~10mg/m^3, 0~200mg/m^3 (customizable)
Indication Error: ±20%
Span Drift: ±2%F.S.
Enclosure Protection: IP65
Probe length: 1m, 1.5m(customizable)

Analog Output: 1×4-20mA, 2A/30V
Communication Interface: RS485, 1×relay output(optional)
Working Temperature: −40℃~+45℃
Flue Gas Temp.: ＜250℃

Feature

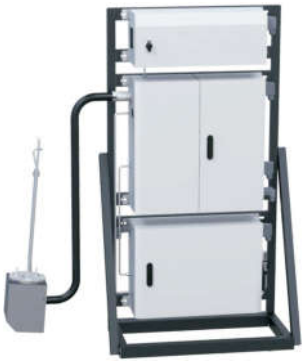
Automatic online calibration
0.05mg/m^3 low detection limit meets ultra-low emission on-line monitoring requirements
Air curtain purging protects glasses, long maintenance intervals
No influence from external light, suitable for dust monitoring of open space
Special structure design enables the monitor for ultra-short optical path measurement, no need to adjust the optical path

Application

Apply to online monitoring of low concentrations dust in super clean emissions and development of space dust detection.

DMS-300 Dust Monitoring System

It is an on-line dust analysis instrument independently developed by our company, which uses the mainstream technology of laser scattering measurement with imported core components. It is suitable for dust monitoring in low temperature and high humidity conditions. In addition, it can be extended to open space dust monitoring.



Specification

Range: 0~20mg/m^3, 0~50mg/m^3 (customizable)
Detection Limit: 0.05mg/m^3
Indication Error:±10%
Span Drift: ±2%F.S.
Enclosure Rating: IP54
Power: 1500W
Sampling Flow: 0~30L/min

Analog Output: Temp., pressure, flow rate, dust 4×4-20mA output
Comm. Interface: RS485(optional), 5×relay output(optional), 2A/30V, passive
Working Temperature: −20℃~+45℃
Flue Gas Temp.: ＜300℃
Human-computer Interaction: OLED display

Feature

Extractive monitoring system with high temperature heat tracing to make water gasification, prevent interference dust measurement from moisture
Using large-caliber jet pump avoids clogging caused by dust accumulation, long maintenance intervals
Temperature compensation and automatic range switching function

Application

Apply to dust monitoring in low temperature and high humidity conditions, the workshop dust monitoring

NOX-200 NOx Converter

NOx-200 can convert NO_2 into NO. It is a conversion device for infrared absorption NOx analyzer, UV difference absorption NOx analyzer, chemiluminescence NOx analyzer before measurement. NO_2 of NOx ($NO + NO_2$) is converted into NO to measure the concentration of NO_2 or NOx.

Specification

Working temperature: 320℃~ 450℃
Installation method: rack mounted or wall-mounted
Flow range :(0.5 ~ 2.5) L/min
Ambient temperature: 0~50℃
Input pressure: ≥2bar
Conversion efficiency: ≥95%
Installation size: 438mm×370mm×129mm
Power: 220VAC, 50Hz, 320W
Preheating time: approx. 30min.
Service life: when the ventilation rate is 2L/h, and NO_2 meets 100ppm, the service life can be more than 2 years

Feature

High conversion efficiency, more installation methods
Large air flow and fast response time
Light and portable, strong stability

Application

It can be used in the new equipment integration and upgrading of NOx analyzer to improve the accuracy of detection. In addition, it can also be used in equipment such as NOx separation and transformation. It is widely used in environmental monitoring, laboratory measurement and some industrial processes.