



The following documentation is an electronically-submitted vendor response to an advertised solicitation from the *West Virginia Purchasing Bulletin* within the Vendor Self-Service portal at wvOASIS.gov. As part of the State of West Virginia's procurement process, and to maintain the transparency of the bid-opening process, this documentation submitted online is publicly posted by the West Virginia Purchasing Division at WVPurchasing.gov with any other vendor responses to this solicitation submitted to the Purchasing Division in hard copy format.

Header 4

List View


General Information | [Contact](#) | [Default Values](#) | [Discount](#) | [Document Information](#)

Procurement Folder: 739524

SO Doc Code: CRFQ

Procurement Type: Central Purchase Order

SO Dept: 0313

Vendor ID: VS0000007072 

SO Doc ID: DEP2000000042

Legal Name: American Ecotech, LC


Published Date: 6/30/20

Alias/DBA:

Close Date: 7/7/20

Total Bid: \$40,551.00

Close Time: 13:30

Response Date: 07/03/2020 

Status: Closed

Response Time: 17:12

Solicitation Description: Addendum
Continuous Sulfur Dioxide (SO2) 


Total of Header Attachments: 4

Total of All Attachments: 4



Purchasing Division
 2019 Washington Street East
 Post Office Box 50130
 Charleston, WV 25305-0130

**State of West Virginia
 Solicitation Response**

Proc Folder : 739524
Solicitation Description : Addendum
Proc Type : Central Purchase Order

Date issued	Solicitation Closes	Solicitation Response	Version
	2020-07-07 13:30:00	SR 0313 ESR07032000000000044	1

VENDOR
VS0000007072 American Ecotech, LC

Solicitation Number: CRFQ 0313 DEP2000000042

Total Bid : \$40,551.00 **Response Date:** 2020-07-03 **Response Time:** 17:12:26

Comments:

FOR INFORMATION CONTACT THE BUYER
 Joseph E Hager III
 (304) 558-2306
 joseph.e.hageriii@wv.gov

Signature on File	FEIN #	DATE
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All offers subject to all terms and conditions contained in this solicitation

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
1	Continuous Sulfur Dioxide (SO2) Analyzers Model T100 or equa	2.00000	EA	\$13,457.600000	\$26,915.20

Comm Code	Manufacturer	Specification	Model #
41113100			

Extended Description : (2) Continuous Sulfur Dioxide (SO2) Analyzers, Teledyne Advanced Pollution Instrumentation Model T100 or equal

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
2	Continuous Sulfur Dioxide (SO2) Analyzers Model T100U or equ	1.00000	EA	\$13,635.800000	\$13,635.80

Comm Code	Manufacturer	Specification	Model #
41113100			

Extended Description : (1) Continuous Sulfur Dioxide (SO2) Analyzers, Teledyne Advanced Pollution Instrumentation Model T100U or equal



Purchasing Division
 2019 Washington Street East
 Post Office Box 50130
 Charleston, WV 25305-0130

State of West Virginia
 Request for Quotation
 13 – Equipment

Proc Folder: 739524

Doc Description: Continuous Sulfur Dioxide (SO2) Analyzers DAQ20-10

Proc Type: Central Purchase Order

Date Issued	Solicitation Closes	Solicitation No	Version
2020-06-22	2020-07-07 13:30:00	CRFQ 0313 DEP2000000042	1

BID RECEIVING LOCATION

BID CLERK
 DEPARTMENT OF ADMINISTRATION
 PURCHASING DIVISION
 2019 WASHINGTON ST E
 CHARLESTON WV 25305
 US

VENDOR

Vendor Name, Address and Telephone Number:

American Ecotech
 100 Elm Street, Factory D
 Warren, RI 02885
 (401) 247-0100

FOR INFORMATION CONTACT THE BUYER

Joseph E Hager III
 (304) 558-2306
 joseph.e.hageriii@wv.gov

Signature X

FEIN # 02-0596781

DATE July 3, 2020

All offers subject to all terms and conditions contained in this solicitation

ADDITIONAL INFORMATION:

Request for Quotation
(WV DEP Sulfur Dioxide Analyzer)

In accordance with WV Code 5A-3, The West Virginia Purchasing Division is soliciting bids on behalf of the West Virginia Department of Environmental Protection, Division of Air Quality to establish a contract for the one-time purchase of three (3) Continuous Sulfur Dioxide (SO2) Analyzers with expendable supplies per the bid requirements, specifications and terms and conditions as attached hereto.

INVOICE TO		SHIP TO	
ENVIRONMENTAL PROTECTION DIVISION OF AIR QUALITY 601 57TH ST SE CHARLESTON WV25304 US		ENVIRONMENTAL PROTECTION DIVISION OF AIR QUALITY 131A PENINSULA ST WHEELING WV 26003 US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
1	Continuous Sulfur Dioxide (SO2) Analyzers Model T100 or equa	2.00000	EA	\$13,457.60	\$26,915.20

Comm Code	Manufacturer	Specification	Model #
41113100	Ecotech	Serinus 50 SO2 Analyzer	E020050

Extended Description :

(2) Continuous Sulfur Dioxide (SO2) Analyzers, Teledyne Advanced Pollution Instrumentation Model T100 or equal

INVOICE TO		SHIP TO	
ENVIRONMENTAL PROTECTION DIVISION OF AIR QUALITY 601 57TH ST SE CHARLESTON WV25304 US		ENVIRONMENTAL PROTECTION DIVISION OF AIR QUALITY 601 57TH ST SE CHARLESTON WV 25304 US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
2	Continuous Sulfur Dioxide (SO2) Analyzers Model T100U or equ	1.00000	EA	\$13,635.80	\$13,635.80

Comm Code	Manufacturer	Specification	Model #
41113100	Ecotech	Serinus 50 Trace SO2 Analyzer	E020050Trace

Extended Description :

(1) Continuous Sulfur Dioxide (SO2) Analyzers, Teledyne Advanced Pollution Instrumentation Model T100U or equal

ADDENDUM ACKNOWLEDGEMENT FORM
SOLICITATION NO.:

Instructions: Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

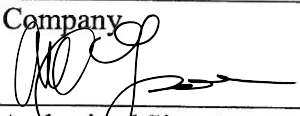
Acknowledgment: I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

Addendum Numbers Received:

(Check the box next to each addendum received)

- | | |
|--|--|
| <input checked="" type="checkbox"/> Addendum No. 1 | <input type="checkbox"/> Addendum No. 6 |
| <input type="checkbox"/> Addendum No. 2 | <input type="checkbox"/> Addendum No. 7 |
| <input type="checkbox"/> Addendum No. 3 | <input type="checkbox"/> Addendum No. 8 |
| <input type="checkbox"/> Addendum No. 4 | <input type="checkbox"/> Addendum No. 9 |
| <input type="checkbox"/> Addendum No. 5 | <input type="checkbox"/> Addendum No. 10 |

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

American Ecotech
 Company _____


 Authorized Signature
 July 3, 2020

 Date

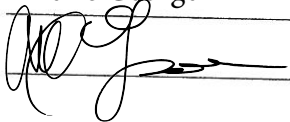
NOTE: This addendum acknowledgement should be submitted with the bid to expedite document processing.

Exhibit A Pricing Page

ITEM NO.	SPEC. REF. #	DESCRIPTION	Brand/Model Bid if 'or Equal'	QUANTITY	UNIT COST	EXTENDED PRICE
1	3.1.2	Continuous Sulfur Dioxide (SO ₂) Analyzers, Teledyne Advanced Pollution Instrumentation Model T100 or equal	Ecotech Serinus 50 SO2 Analyzer	2	\$13,457.60	\$26,915.20
2	3.1.3	Continuous Sulfur Dioxide (SO ₂) Analyzers, Teledyne Advanced Pollution Instrumentation Model T100U or Equal	Ecotech Serinus 50 Trace SO2 Analyzer	1	\$13,635.80	\$13,635.80
TOTAL BID AMOUNT						40,551.00

Company: American Ecotech

Name: Alexis George

Signature:  _____

Date: July 3, 2020

STATE OF WEST VIRGINIA
Purchasing Division
PURCHASING AFFIDAVIT

CONSTRUCTION CONTRACTS: Under W. Va. Code § 5-22-1(i), the contracting public entity shall not award a construction contract to any bidder that is known to be in default on any monetary obligation owed to the state or a political subdivision of the state, including, but not limited to, obligations related to payroll taxes, property taxes, sales and use taxes, fire service fees, or other fines or fees.

ALL CONTRACTS: Under W. Va. Code §5A-3-10a, no contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and: (1) the debt owed is an amount greater than one thousand dollars in the aggregate; or (2) the debtor is in employer default.

EXCEPTION: The prohibition listed above does not apply where a vendor has contested any tax administered pursuant to chapter eleven of the W. Va. Code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

DEFINITIONS:

"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Employer default" means having an outstanding balance or liability to the old fund or to the uninsured employers' fund or being in policy default, as defined in W. Va. Code § 23-2c-2, failure to maintain mandatory workers' compensation coverage, or failure to fully meet its obligations as a workers' compensation self-insured employer. An employer is not in employer default if it has entered into a repayment agreement with the Insurance Commissioner and remains in compliance with the obligations under the repayment agreement.

"Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceeds five percent of the total contract amount.

AFFIRMATION: By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (W. Va. Code §61-5-3) that: (1) for construction contracts, the vendor is not in default on any monetary obligation owed to the state or a political subdivision of the state, and (2) for all other contracts, that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.

WITNESS THE FOLLOWING SIGNATURE:

Vendor's Name: American Ecotech

Authorized Signature: *[Signature]* Date: July 3, 2020

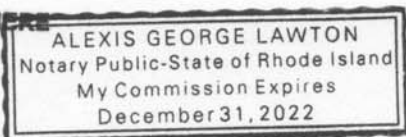
State of Rhode Island

County of Bristol, to-wit:

Taken, subscribed, and sworn to before me this 3 day of July, 2020.

My Commission expires December 31, 2022.

AFFIX SEAL HERE



NOTARY PUBLIC

[Signature]
(Purchasing Affidavit (Revised 01/19/2018))



Air Pollution Monitoring Systems

426 Metacom, Factory D (PO Box 311), Warren RI 02885
 EIN: 02-0596781
 Tel : 401-247-0100 , Fax : 401-537-9166
 Email : sales@AmericanEcotech.com
 Web : www.AmericanEcotech.com

Quotation

Date	Estimate #
7/3/2020	M14321

Purchaser
West Virginia Dept of Env. Protection Division of Air Quality 601 57th Street, SE Charleston, WV 25304 ATTN: Josh Hager (304-558-8801)

Item	Description	Qty	U/M	Per Unit	Total
	Response to Solicitation #CRFQ_0313_DEP2000000042.				
Serinus 50 Group					
E020050	SERINUS 50 SO2 ANALYZER (NON-TRACE): Ecotech Serinus 50 Sulfur Dioxide (SO2) analyzer with particulate filter (USEPA Equivalency Method EQSA-0809-188). Ability for analog signal output and internal scrubber also included (no external scrubber necessary).	2		10,312.00	20,624.00
E020101	PCA (Ethernet) Network Port for data download and remote control. Above analyzer also includes USB, RS232, MODBUS, Bluetooth, and analog as standard.	2		190.00	380.00
E020106	Internal Pump Option, for Serinus 50 analyzers.	2		1,090.00	2,180.00
	SUB-TOTAL				23,184.00
Equipmt Disc 5%	5% discount on above line items.			-5.00%	-1,159.20
E020204	Annual Maintenance Kit for Serinus 50 SO2 analyzers.	2		267.00	534.00
F010006-03	5 Micron filter element 47mm (25 ea.) for Serinus series analyzers.	4		201.00	804.00
C050014	Desiccant, 5 gram pack.	24		3.00	72.00
P031005	Internal pump repair kit.	2		130.00	260.00
C020076	UV Lamp Assembly, for S50 Analyzers	4		839.00	3,356.00
Equipmt Disc 10%	10% discount on above line item			-10.00%	-335.60
Shipping-Std	Packing, shipping, and insurance.	2		100.00	200.00
	SUBTOTAL SERINUS 50 SO2 ANALYZER (NON-TRACE):				26,915.20
Serinus 50 Group					
E020050	SERINUS 50 SO2 ANALYZER (TRACE): Ecotech Serinus 50 Sulfur Dioxide (SO2) analyzer with particulate filter (USEPA Equivalency Method EQSA-0809-188). Ability for analog signal output and internal scrubber also included (no external scrubber necessary).	1		10,312.00	10,312.00
E020126	Trace level Serinus 50 configuration.	1		842.00	842.00
E020101	PCA (Ethernet) Network Port for data download and remote control. Above analyzer also includes USB, RS232, MODBUS, Bluetooth, and analog as standard.	1		190.00	190.00
E020106	Internal Pump Option, for Serinus 50 analyzers.	1		1,090.00	1,090.00
	SUB-TOTAL				12,434.00
Equipmt Disc 10%	10% discount on above line items.			-10.00%	-1,243.40
E020204	Annual Maintenance Kit for Serinus 50 SO2 analyzers.	1		267.00	267.00
F010006-03	5 Micron filter element 47mm (25 ea.) for Serinus series analyzers.	2		201.00	402.00
C050014	Desiccant, 5 gram pack.	12		3.00	36.00
P031005	Internal pump repair kit.	1		130.00	130.00
C020076	UV Lamp Assembly, for S50 Analyzers	2		839.00	1,678.00
Equipmt Disc 10%	10% discount on above line item			-10.00%	-167.80
Shipping-Std	Packing, shipping, and insurance.	1		100.00	100.00
	SUBTOTAL SERINUS 50 SO2 ANALYZER (TRACE):				13,635.80
T&C-2015-12-31_Crdt	Payment Terms: Net 30 days from date of invoice. NOTE: warranty period extended to two years. All other terms and conditions apply. Full terms and conditions : http://americanecotech.com/AE_TermsandConditionsV1-2.pdf				0.00T
Total					USD 40,551.00



TERMS AND CONDITIONS OF SALE

GENERAL – American Ecotech L.C. (Seller) hereby offers for sale to the party as named on first page of the provided quotation (Purchaser), the products and/or services as listed on the provided Quotation, on the express condition that Purchaser agrees to accept and be bound by the terms and conditions set forth herein. Issuance of Purchaser's written purchase order constitutes Purchaser's acceptance of this agreement. No waiver or other consent to modify the terms contained herein shall be binding unless the waiver or modification is listed in writing as an amendment to these terms and conditions, and is approved and signed by Seller and Purchaser.

QUOTATION – Quotation remains valid for 30 days.

PAYMENT TERMS – Terms of payment are identified in the text of the Quotation. In addition, all payments must be in the currency quoted and invoiced, unless otherwise agreed in writing. If payment is not received by due date, the customer shall be liable for interest on the balance due at a rate of 1.5% per month. Seller accepts payment via company check, wire transfer, or credit card. Credit card payments exceeding \$5,000 may incur an additional 2% bank processing fee.

DELIVERY - Unless otherwise indicated in the provided Quotation, shipping is FOB Shipping Point. Shipping charges, if included in the provided Quotation, may vary depending on cost of shipping at time of delivery. Delivery time for instrumentation or systems is approximately 8 to 10 weeks from the date of purchase order. Delivery time for spare parts is approximately 2 to 4 weeks from date of purchase order. Seller does not accept any liability for delays in shipping. Seller reserves the right to reschedule shipping and Purchaser is not entitled to refuse delivery or otherwise be relieved of its obligations. Seller may elect to make partial shipments of Product, and to invoice for each Product separately. Products are normally shipped to Purchaser's nominated shipping address immediately upon completion of production, unless Purchaser requests in writing that Seller is to temporarily store and secure the finished Product at Seller's premises on Purchaser's behalf. Seller can only agree to temporarily store product under the proviso that Seller's invoice can be immediately issued upon completion of production, and that Seller's storage costs are reimbursed. All additional expenses including delivery scheduling changes requested by Purchaser, loading, off-loading, titling, licensing, state inspection, local duties, or taxes that may apply are solely the Purchaser's responsibility. The Seller must be notified of any shipping damages incurred within 5 business days following delivery to Purchaser. Purchaser remains responsible for any damages thereafter. Credit is not provided for damaged Products returned without prior consent of Seller.

RETURNS - Approval by Seller is required before returning any product, and product returns are not accepted until a written notification by Seller is issued. All returned product is subject to inspection and approval by Seller prior to restocking. A minimum restocking fee of 25% will be assessed on the invoiced value of returned product. Product returns are not accepted for items which were specifically manufactured or altered to customer specifications. Requests for return of product to Seller are not accepted beyond 30 days from date of original invoice.

WARRANTY - Seller warrants that the goods or work completed hereunder will conform to the description of goods or work in the provided Quotation and be of good quality, free from material defect, or software defect that may cause hardware or software to become permanently inoperable, and if services are provided those shall be performed in a professional and competent manner. Standard warranty period on Product is twelve (12) months from date of invoice, except for consumable items and/or components which are obtained by Seller from an original manufacturer or third party supplier. For those component parts, any warranty claim will be presented to the respective manufacturer for evaluation, and as such the total warranty terms may vary accordingly on those components. Products identified as refurbished are warranted for sixty (60) days from the date of invoice. Replacement parts may be new or refurbished, at the discretion of the Seller. Seller warrants all Services for ninety days (90) after completion unless otherwise mutually agreed upon under a separate Service contract. Goods under warranty repair may require return by Purchaser to the Seller's factory for evaluation of repair or replacement. Purchaser is responsible for Product transport costs associated with warranty repairs. Loss of time/use, inconvenience, rental of substitute equipment, loss of revenues, or other commercial loss is not included in this warranty. Warranty claims exclude Product damages caused by improper operation or use in a manner for which Product was not designed, overloading or improper load distribution, lack of preventative maintenance, improper storage, normal wear and tear, failure to secure equipment, any accident, disaster, or event of force majeure, excessive power surges, water damage, or any negligence or misuse by Purchaser or other operator. Seller reserves the right to determine whether a Product was misused in any way and Seller determines the validity of the Warranty claim. Technical support will be provided by phone or email by Seller to assist in warranty issue repair. Seller's liability for breach of warranty is limited to the cost to repair or re-supply the Product. Seller makes no other warranty express or implied.

CONTRACT CANCELLATION – Purchaser is responsible for full payment of a services contract if terminated without cause before completion of contract. Seller shall retain the right to terminate the contract at any time and not be held liable for any costs incurred as a result of contract cancellation by Seller.

ON-SITE INSTALLATION, MAINTENANCE AND/OR TRAINING: Unless specifically itemized in Quotation, any required onsite installation, maintenance and/or training will be billed separately at Seller's standard daily rate. Delays, including weather delays, in performing onsite duties that were not caused by Seller may incur additional labor and travel fees. On-site visits should be scheduled at least 21 days prior. Changes to the on-site schedule that are requested by the Purchaser less than 21 days prior to the site visit may incur a staff scheduling labor surcharge, plus applicable travel booking change fees. Purchaser shall provide Seller all information reasonably necessary for Seller to perform Services, including any plans, plant layouts, wiring instructions, and operational information. If Purchaser is also providing any of its own equipment to facilitate project completion, Purchaser covenants that such equipment is fully functional and agrees that if non-functional equipment supplied by Purchaser results in additional time and/or materials costs to Seller, then Seller is permitted to bill for its additional time and/or materials costs incurred. Purchaser shall also provide safe storage of Seller's equipment, materials, and tools during the performance of Services at Purchaser or Purchaser's customer worksite. Purchaser agrees to reasonably cooperate as necessary to facilitate Seller's performance of Services. Purchaser agrees that it has fully and accurately disclosed to Seller all general and local conditions that may affect Seller's performance of Services, and Purchaser acknowledges that Seller is entitled to rely on information furnished by Purchaser in developing its specifications, equipment selection, price, and in performing Services.

ADDITIONAL TERMS FOR SYSTEMS – The following terms apply to system quotations:

ITEMS NOT COVERED IN QUOTATION: Unless specifically listed in Quotation, the following items are not included: Gas bottle/s; Gas bottle regulator/s and fittings; Mixed gas cylinder; LCD monitor/s, keyboard, and mouse; Modems and Static IP Addresses and local data communications service plans.

MODIFICATIONS: Where relevant for custom designed systems, the design process begins immediately following receipt of authorized order and payment. A revision period consisting of up to three (3) revisions of the Product design is then completed within 15 business days thereof. A revision is defined as providing a modified set of design drawings to Purchaser, with each modified drawing being marked with the revision number. At the completion of the revision period, and unless Seller is notified in writing otherwise, the latest drawing revision is deemed the final approved Product design. Modifications beyond the revision period may incur additional labor time in accordance at Seller's standard rates. Requests for modifications which require a change order to be issued by Purchaser must be approved by Purchaser within the revision period. Once production is initiated, any modified, cancelled or postponed orders may be subject to charges.

SITE CIVIL WORKS/SHELTER OFFLOADING – Where applicable, Purchaser must ensure that suitable electrical power is supplied to shelter or system in advance of site installation. Site civil works costs including crushed stones or concrete slab for shelter base; security fencing (if being installed); provision of appropriate site access; all site and building permitting requirements; and offloading of shelters at site, are the full responsibility of customer. Any Seller assistance in any of the civil works costs or time is to be billed separately to customer (subject to discussion and approval with customer).

LIMITATION OF LIABILITY - Seller's liability by reason of breach of contract, tort, or otherwise shall not exceed an amount equal to the lesser of (a) the total purchase price theretofore paid by Purchaser to Seller with respect to the Product giving rise to such liability, or (b) Fifty thousand dollars (\$50,000). In no event shall Seller be liable for indirect, consequential, exemplary, or incidental damages even if advised of the possibility of such damages. Purchaser may not delegate any duties nor assign any rights or claims without Seller's written consent.

COMPLIANCE WITH FEDERAL AND STATE LAWS, RULES AND REGULATIONS - The articles purchased and the work performed hereunder shall conform to and be in compliance with all applicable laws, rules, and regulations and Purchaser shall indemnify, defend and hold harmless Seller from any and all liability, fines, and expenses, including attorney's fees, arising from failure to do so. The rights and obligations of the parties addressed by the provided quotation shall be governed by the laws of the State of Rhode Island.

WIRE TRANSFER INFORMATION– If wiring funds, please notify us that your wire transfer is completed. Wire transfers can be issued to: *American Ecotech, c/o Citizens Bank checking A/C # 16334965, Bank routing # 011500120, SWIFT Number: ctzius33, Bank address: 521 Main St. Warren, RI 02885, USA Bank local telephone # 401-438-1356 or 800 862-6200.*

Serinus[®] 50

SULFUR DIOXIDE ANALYSER



The Serinus[®] 50 sulfur dioxide (SO₂) analyser delivers precise and reliable performance at excellent value. It uses proven pulsed UV fluorescent radiation technology to measure SO₂ in ambient air (LDL < 0.3 ppb, range 0 to 20 ppm).

APPROVALS

- US EPA approval (EQSA-0809-188)
- EN approval TÜV (936/21221977/B)
- EN approval MCERTS (MC100168/07)
- Australian Standard (AS 3580.4.1-2008)
- Russian approval (56054-13)
- French approval LSCQA

BENEFITS

The Serinus[®] range of analysers have been designed using our experience and knowledge gained from operating large air quality monitoring networks for more than 40 years. The result, instruments that integrate seamlessly into continuous monitoring networks.

- Reliable performance complemented with a two year warranty
- Minimise time spent on site performing maintenance through superior remote instrument control, diagnostic viewing and calibration
- Comprehensive data logging and remote viewing of over 200 operational parameters
- Versatile interfacing through RS232, USB, Bluetooth, analog and digital I/O and optional TCP/IP
- Easy setup through an intuitive menu system, advanced GUI and a large alphanumeric keypad with tactile keys
- Instant status indication via illuminated instrument status light buttons on the front panel
- Removable flash memory stores ~10 years of data, including up to 12 individual parameters and event logs. Operational parameters can also be transferred to memory for easy retrieval
- Latest firmware updates can easily be installed using the USB flash memory drive
- Programming, viewing, downloading and emailing of data is made even simpler using Bluetooth connectivity combined with the “ECOTECH Serinus Remote” Android App
- Built-in digital display measuring values and having function of measuring values transferred to graphical trend display
- Enhanced operator safety through the use of 12 VDC internal voltages
- Reduced cost of spare parts, accessories and consumable items through extensive use of standard components across the Serinus[®] range
- Rack slide design makes accessing internal components and removing the analyser from a rack cabinet easy
- AQMS power usage can be reduced due to the instrument’s low power demand and its ability to operate over a wide temperature range.

SPECIFICATIONS

Ranges:	0 - 20 ppm (autoranging)
Concentration units:	mg/m ³ , µg/m ³ , ng/m ³ , ppm, ppb or ppt
Noise:	< 0.15 ppb
Lower detectable limit:	< 0.3 ppb or 0.2 % of concentration whichever is greater
Linearity:	< 1 % of full scale
Precision:	0.5 ppb or 0.5 % of reading whichever is greater
Zero drift:	24 hours: < 0.5 ppb 7 days: < 0.5 ppb
Span drift:	24 hours: < 0.5 % of reading or < 0.5 ppb whichever is greater
Response time:	60 seconds to 95 %
STP reference:	0 °C, 20 °C, 25 °C at 101.3 kPa
Sample flow rate:	725 cc/min
Temperature range:	0 to 40 °C
Operating power:	100 - 240 VAC, 50 - 60 Hz (autoranging)
Power consumption:	255 VA (max at start-up) 180 VA (nominal)
Dimensions:	429 x 175 x 638 mm
Rack Spacing:	3.5 RU
Weight:	18.1 kg

COMMUNICATION

- #1 RS232 port (supports all protocols*)
- #2 RS232 port (supports all protocols* and multidrop)
- USB port (Advanced protocol only)
- Bluetooth (Advanced protocol only)
- TCP/IP network port (optional, supports all protocols*).

*Available protocols: Modbus (RTU/TCP), Bayern Hessen, EC9800 or Advanced

COMMUNICATION ANALOG & DIGITAL I/O PORT:

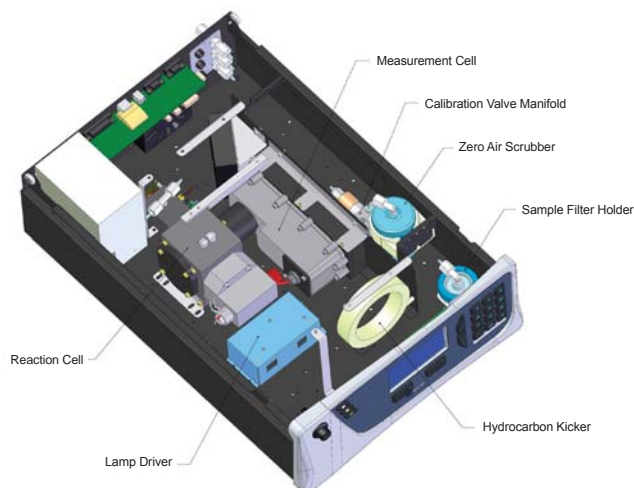
- 3 x analog outputs (current or voltage), 12 bit resolution user definable range (between two user specified points)
Current range: 0 - 20 mA, 2 - 20 mA or 4 - 20 mA
Voltage range: 0 - 5 V, 0 - 10 V (voltage offset of 0 V, 0.25 V or 0.5 V)
- 3 x analog inputs (scalable), 0 - 5 V, 16 bit resolution
- 8 x logic level digital control inputs
- 8 x open collector digital status outputs.

DATA LOGGING

- 8 GB removable USB flash memory drive that stores the internal data logger, event log, automatic/manual configuration backup and automatic/manual parameter list save
- Internal data logger (can log up to 12 of 200+ parameters)
- Logger interval (1 second to 24 hours)
- Storage capacity ~ 10 years (set to 1 minute interval).

OPTIONS & ACCESSORIES

- TCP/IP Network Port
- Dual Sample (particulate) Filter
- High Pressure Span (for direct cylinder calibration)
- High Pressure Zero (for direct cylinder calibration)
- Test Lamp (for PMT diagnostics)
- Internal DC Pump (long life, low power, minimal maintenance)
- Metric Fitting Kit (to connect 6 mm tube to rear ports)
- 19" Rack Mount Kit
- External Pump (240 or 110 VAC)
- Annual Maintenance Kit
- Printed User Manual (a soft copy of the user manual is supplied on the ECOTECH resources USB stick with each analyser).



AMERICAN ECOTECH
100 Elm Street, Factory D, Warren, RI 02885
(877) 247-0403 info@americanecotech.com www.americanecotech.com

 **AMERICAN
ECOTECH**
Air Pollution Monitoring Systems

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Serinus® 50T

TRACE SULFUR DIOXIDE ANALYSER



The Serinus® 50T Trace Sulfur Dioxide (SO₂) analyser delivers precise and reliable performance at excellent value. It uses proven pulsed UV fluorescent radiation technology to measure SO₂ in ambient air (LDL 100 ppt, range 0 - 2000 ppb).

APPROVALS

The Serinus® 50T is based on the Serinus® 50 design which has the following approvals:

- US EPA approval (EQSA-0809-188)
- EN approval TÜV (936/21221977/B)
- EN approval MCERTS (MC100168/08)
- Australian Standard (AS 3580.4.1-2008)
- Russian approval (56054-13)
- French approval LSCQA
- Ukraine approval (12/3/B/24/295-17)
- Chinese Pattern Approval (JJF1523-2015)

BENEFITS

The Serinus® range of analysers have been designed using our experience and knowledge gained from operating large air quality monitoring networks for more than 40 years. The result, instruments that integrate seamlessly into continuous monitoring networks.

- Reliable performance complemented with a two year warranty
- Minimise time spent on site performing maintenance through superior remote instrument control, diagnostic viewing and calibration
- Comprehensive data logging and remote viewing of over 200 operational parameters
- Versatile interfacing through RS232, USB, Bluetooth, analog and digital I/O and optional TCP/IP
- Easy setup through an intuitive menu system, advanced GUI and a large alphanumeric keypad with tactile keys
- Instant status indication via illuminated instrument status light buttons on the front panel
- Removable flash memory stores ~10 years of data, including up to 12 individual parameters and event logs. Operational parameters can also be transferred to memory for easy retrieval
- Latest firmware updates can easily be installed using the USB flash memory drive
- Programming, viewing, downloading and emailing of data is made even simpler using Bluetooth connectivity combined with the “ECOTECH Serinus® Remote” Android App
- Enhanced operator safety through the use of 12 VDC internal voltages
- Reduced cost of spare parts, accessories and consumable items through extensive use of standard components across the Serinus® range
- Rack slide design makes accessing internal components and removing the analyser from a rack cabinet easy
- AQMS power usage can be reduced due to the instrument’s low power demand and its ability to operate over a wide temperature range.

SPECIFICATIONS

Range:	0 - 2000 ppb (autoranging)
Concentration units:	mg/m ³ , µg/m ³ , ng/m ³ , ppm, ppb or ppt
Noise:	< 50 ppt
Lower detectable limit:	< 100 ppt (with Kalman filter enabled)
Linearity:	± 1 % of full scale
Precision:	500 ppt or 0.5 % of reading whichever is greater
Zero drift:	24 hours: < 200 ppt
Span drift:	24 hours: < 0.5 % of reading or 1 ppb whichever is greater
Response time:	60 seconds to 90 %
STP reference:	0 °C, 20 °C, 25 °C at 101.3 kPa
Sample flow rate:	750 cc/min
Temperature range:	0 - 40 °C
Power:	100 - 240 VAC, 50 - 60 Hz (autoranging)
Power consumption:	255 VA (max at start-up) 180 VA (nominal)
Dimensions:	429 x 175 x 638 mm
Rack Spacing:	3.5 RU
Weight:	18.1 kg

COMMUNICATION

- #1 RS232 port (supports all protocols*)
- #2 RS232 port (supports all protocols* and multidrop)
- USB port (Advanced protocol only)
- Bluetooth (Advanced protocol only)
- TCP/IP network port (optional, supports all protocols*).

*Available protocols: Modbus (RTU/TCP), Bayern Hessen, EC9800 or Advanced

COMMUNICATION ANALOG & DIGITAL I/O PORT:

- 3 x analog outputs (current or voltage), 12 bit resolution user definable range (between two user specified points)
Current range: 0 - 20 mA, 2 - 20 mA or 4 - 20 mA
Voltage range: 0 - 5 V, 0 - 10 V (voltage offset of 0 V, 0.25 V or 0.5 V)
- 3 x analog inputs (scalable), 0 - 5 V, 16 bit resolution
- 8 x logic level digital control inputs
- 8 x open collector digital status outputs.

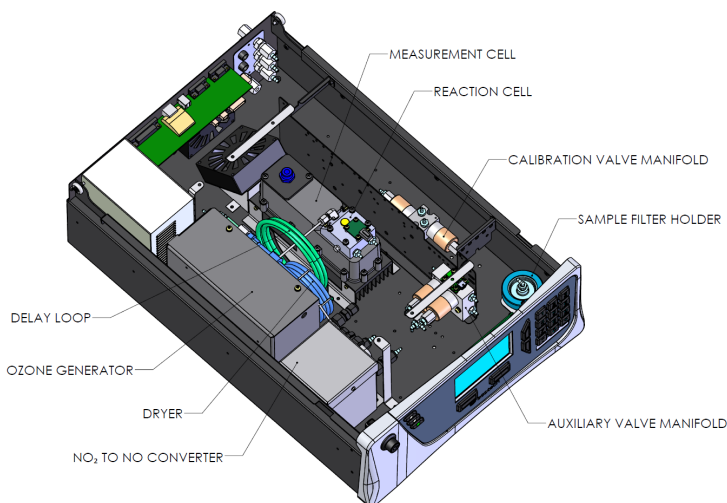
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