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

State of West Virginia
Request for Quotation
27 — Miscellaneous

Proc Folder: 388426

Doc Description: Continuous Sulfur Dioxide (SO2) Analyzers DAQ18-4

Proc Type: Central Purchase Order

Date Issued	Solicitation Closes	Solicitation No	Version
2017-11-15	2017-12-07 13:30:00	CRFQ 0313 DEP1800000009	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:

Thomas Scientific LLC
1654 High Hill Road
Swedesboro, NJ 08085
(321) 266-3780

12/07/17 09:04:09
WV Purchasing Division

FOR INFORMATION CONTACT THE BUYER

Brittany E Ingraham
(304) 558-2157
brittany.e.ingraham@wv.gov

Signature X Dale Martin **FEIN #** 61-1853692 **DATE** 12/05/2017

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

FORM ID : WV-PRC-CRFQ-001

Request for Quotation

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, Teledyne Advanced Pollution Instrumentation model T100 or Equal, per the bid requirements, specifications, terms and conditions attached to this solicitation.

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	3.00000	EA	$15,807.00	$47,421.00

Comm Code	Manufacturer	Specification	Model #
41113100	Thermo Scientific	43iQ	Sulfur Dioxide Analyzer, Teledyne T100 Equal Product, 100-120 VAC, 50/60 Hz (NA), - Communications - Serial, Analog, and Digitial, - Case Configuration - No Zero/Span Valves, Includes Waranty 1 Year Parts/labor

Extended Description :

Three (3) Continuous Sulfur Dioxide (SO2) Analyzers, Teledyne Advanced Pollution Instrumentation Model T100 or Equal

ADDITIONAL TERMS AND CONDITIONS

See attached document(s) for additional Terms and Conditions

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PRODUCT SPECIFICATIONS

Thermo Scientific 43iQ

Sulfur Dioxide Analyzer—pulsed fluorescence

The Thermo Scientific™ 43iQ Sulfur Dioxide (SO_2) Analyzer utilizes pulsed fluorescence technology to measure the amount of sulfur dioxide in the air.

The pulsing of the UV source lamp serves to increase the optical intensity whereby a greater UV energy throughput and lower detectable SO_2 concentration are realized.

Reflective bandpass filters, as compared to commonly used transmission filters, are less subject to photochemical degradation and more selective in wavelength isolation. This results in both increased detection specificity and long term stability.

Non-Stop Intelligence

- Predictive Diagnostics
- Proactive Communication
- Personal Device Connectivity

The Thermo Scientific iQ Series Gas Analyzer provides a smart environmental monitoring solution designed for reliability, easy operation and proactive maintenance. Get more control over your instrument's performance, costs, workflow and data availability.

The iQ companion app for the iQ Series Gas Analyzer delivers the ultimate in ease of use and smart engineering. The iQ app allows for remote monitoring of iQ gas analyzers, simplified ways of contacting us and instant access to product resources. Download the iQ app at **thermofisher.com/iQapp**

ThermoFisher SCIENTIFIC

thermoscientific

Thermo Scientific 43iQ Sulfur Dioxide Analyzer

Specifications	
Ranges	0-10 ppm, 0-25 mg/m³
Extended ranges	0-100 ppm, 0-260 mg/m³
Zero noise	1.0 ppb RMS (10 second averaging time) 0.5 ppb RMS (60 second averaging time) 0.25 ppb RMS (300 second averaging time)
Detection limit	2 ppb (10 second averaging time) 1 ppb (60 second averaging time) 0.35 ppb (300 second averaging time)
Zero drift	<0.6 ppb (24 hour)
Span drift	≤0.5% full scale (24 hour)
Response time	60 seconds (10 second averaging time) 110 seconds (60 second averaging time) 330 seconds (300 second averaging time)
Linearity	≤1% full scale
Flow rate	0.5 lpm standard
Interferences (EPA levels)	Less than lower detectable limit except for the following: NO < 3 ppb, M-Xylene < 1ppb, H2O < 3% of reading
Operating temperature	5°-40°C
Power requirements	100-240 VAC 50/60Hz, 275 Watts
Size and weight	24 in (D) x 16.75 in (W) x 8.72 in (H), 37.1 lbs 609 mm (D) x 425.45 mm (W) x 221.45 mm (H), 16.8kg
Analog I/O	4 isolated voltage inputs 0-10 V 6 isolated analog voltages outputs, with 4 selectable ranges 6 isolated analog current outputs, with 2 selectable ranges
Digital I/O	16 digital inputs (TTL) 8 solenoid driver outputs 10 digital reed relay contact outputs
Serial ports	1 RS-232/485 com 1 RS-485 external accessory com
Other ports	3 Full speed USB ports (one in front, two in rear) 1 Gigabit ethernet port
Communication protocols	MODBUS, streaming
Approvals and certifications	CE, TUV-SUD Safety, US EPA: EQSA-0486-060

Ordering information

43iQ Sulfur Dioxide Analyzer
Choose from the following configurations/options to customize your own 43iQ Analyzer
1. Power Cord
A = 100-120 VAC, 50/60 Hz (NA)
B = 220 VAC, 50/60 Hz (CHN)
C = 220 VAC, 50/60 Hz (EU)
2.Communications
N = No I/O
A = Serial RS232/RS485
B = Analog or Digital
C = Serial, Analog and Digital
3. Case Configuration
N = No zero/span valves
A = Internal zero/span valves
B = Internal zero/span valves, internal permeation oven

Your Order Code: 43iQ – ☐☐☐