



Chemical Instrument

## CGA UV4120 Series Photometric Instrument

# Continue Gas Analyzer

Ref: CGAUV4120

## DESCRIPTION

The CGA UV4120 Analyzer is designed to continuously measure gas concentrations within a gaseous sample. The gaseous sample can be ambient air, exhaust gases from an internal combustion engine, or exhaust gases from a combustion process. A wet measurement method may be desirable for the direct calculation of mass emissions.

## FEATURES

Sensitivity to ppm H<sub>2</sub>S, NH<sub>3</sub>, NO/NO<sub>x</sub> (Nox Analyzers need special converter, refer to the professional information)

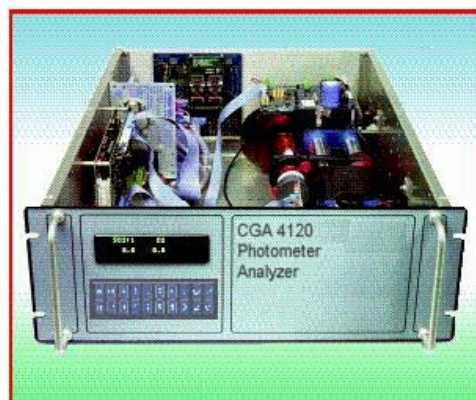
Complete Digital Presentation including Sample & Air Pressure (No Gauges)

Remote Operation Capability

## METHOD OF OPERATION

The BigDipper Instruments CGA UV4120 Analyzer utilizes the principle of UV photometer for analyzing hundreds gases, such as H<sub>2</sub>S, NH<sub>3</sub>, NO or N<sub>2</sub>O concentration within a gaseous sample.

UV4120 system using single light source and divide into 2 wave length after transmission. The light attenuation is to be measured by 2 photodiodes simultaneously. So there is no any mechanic chopper device whatever easily damaged. Very reliable design for rough industrial application and lab usages.



## APPLICATIONS

Stack Gases (CEM)

Scrubber Efficiency

Process Chemical Gas Analysis

Personnel Safety

Power Plant Stack De-Nitrification

Diesel Vehicle Emissions

## SPECIFICATIONS

**ANALYSIS METHOD:** Photodiode Detector

**RANGES:** 10 to 1 max, more available materials analysis

refer to <Photometer Application Parameters>

MATERIAL	PHASE	MIN FULL SCALE
Ammonia	Vapor	400 ppm
Carbon Disulfide	Vapor	226 ppm
Carbonyl Sulfide	Vapor	445 ppm)
Carbon Tetrachloride	Vapor	4,040 ppm
Chlorine	Vapor	125 ppm
Chlorine Dioxide	Vapor	7 ppm
Fluorine	Vapor	1,530 ppm
Hydrogen Sulfide	Vapor	43 ppm
Nitrogen Dioxide (NO <sub>2</sub> )	Vapor	50 ppm
Nitrogen Oxide (NO)	Vapor	200 ppm

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Ozone	Vapor	2.2 ppm
Phosgene	Vapor	480 ppm
Sulfur Dioxide	Vapor	37 ppm
Tetrachloroethane	Vapor	1,610 ppm
Tetrachloroethylene	Vapor	90 ppm
Trichloroethylene	Vapor	1,760 ppm

**RESOLUTION:** 0.1% of reading

**REPEATABILITY:** Better than 0.5% of Full Scale(wanted)

**LINEARITY:** Better than 1% of Full Scale

**H<sub>2</sub>O EFFECT:** Less than 1% with 3% H<sub>2</sub>O

**RESPONSE TIME:** min 100ms, vary with line length and data process setup

**PUMP FLOW RATE:** ~2.0 L/min.

**NOISE:** Less than 0.5% of Full Scale

**DRIFT:** Less than 1% of Full Scale per 24 Hours

**FLOW CONTROL:** Electronic Proportional Pressure Conditioner and mechanic regular valve

**DISPLAY:** 2x16 LCD Digit Panel Meter. Characteristic and numeric direct Reading

**DIAGNOSTICS:** Automatical

**ANALOG OUTPUT:** 0-2.5/5 VDC & 0/4-20 mA DC

**AMBIENT TEMPERATURE:** 5-40°C

**SAMPLE TEMPERATURE:** 0-65°C(standard)

**CONNECT FITTINGS:** 1/4 Inch Tube (otherwise specified)

**POWER REQUIREMENTS:** 110/220 (10%) VAC; 50/60 Hz; 160 Watts

**DIMENSIONS:** 131H x483W x310D (mm)

**ENVIRONMENTAL HUMIDITY:** 10 to 90% RH

**WEIGHT:** ~12kg

## Ordering Information

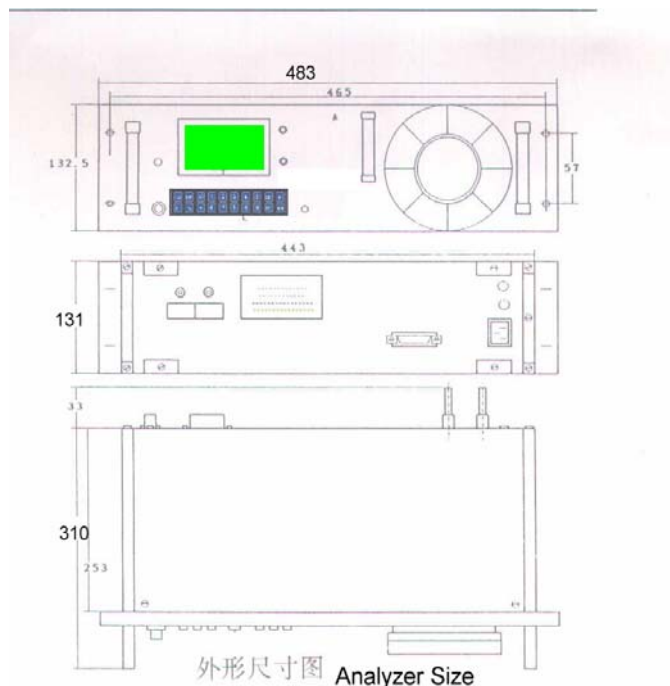
1. Specify Gas ingredients
2. Test range
3. Concentration fluctuation
4. Others like pressure and temperature
5. Accessories
6. Communication protocol
7. Other requirements

## Included Parts

1. Analyzer: 1
2. Spares: 1 suit

## OPTIONS:

- Standard Gas: 1bottle(by order)
- Pressure regular suits: 1 (by order)



refer to PGA 4120 system, special design for industrial process analysis)  
Specifications subject to change without notice

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