



**ONLINE MONITORING SOLUTIONS**  
**WATER QUALITY**  
**STACK EMISSIONS**  
**AMBIENT AIR QUALITY**  
**PROCESS ANALYZERS**

As per CPCB guidelines

TUV QAL1 Certified



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ISO 9001: 2015  
ISO 14001: 2015

# PM ANALYZER FOR STACK EMISSION

EZ320 TR is an optical instruments designed to measure dust, smoke and particulate concentration present in an exhaust gas in a duct or stack. It uses light transmission technique which measure change in the intensity of a light beam, using folded beam Transceiver/Reflector arrangement. Increased dust or particulate density in the stack causes the amplitude of the signal to increase.

The monitor is used in the industries including thermal power plants, metal processing, petrochemical industry, cement production, waste incineration, flue gas emission monitoring in all kind of power generating boilers, industrial kilns and industrial boilers, monitoring and control in Flue Gas Desulphurization (FGD) and dust removal process

## FEATURES

1. In situ measurement directly in exhaust gas
2. Creating a stable, ambient-light-immune modulated LED/Laser source.
3. In situ zero and calibration check facility
4. Choice of interface option enabling easy integration
5. Free utility software for PC based set-up, control and data logging.

The EZ320 LBS continuous emission monitoring system measures stack dust concentration using Laser Backward Scattering method. It is a type-approved device combines the advantages of the ideal measurement of very low to high dust concentrations. They are mostly installed on a stack or duct for the purpose of monitoring increase in Particle Density ( $\text{mg}/\text{m}^3$ ) caused by suspended particles (dust and smoke) passing through the light path.



EZ320 TR

EZ320 LBS

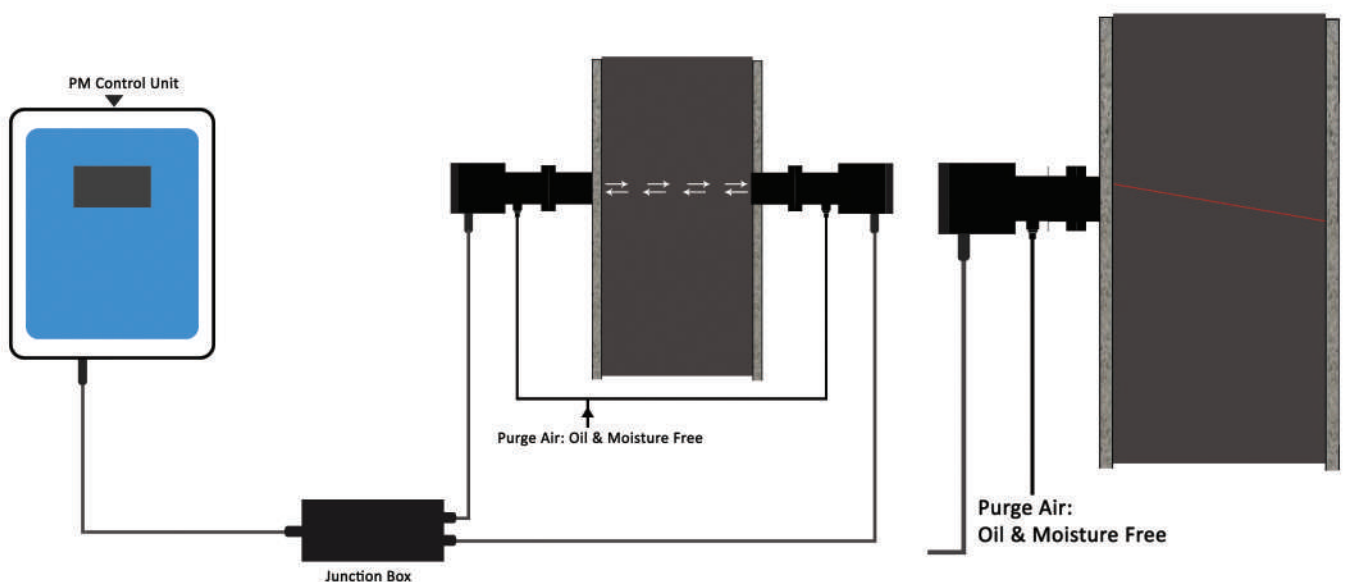
## TECHNICAL SPECIFICATION

SPECIFICATION	EZ320 TR	EZ320 LBS
Measuring Principle	Light Transmission (Dual Pass)	Laser Backward Scattering (LBS)
Operating Wavelength	510 ~ 550nm	650nm
Measurement Unit	mg/m <sup>3</sup>	mg/m <sup>3</sup>
Measurement Range	0~2000 (User Configurable)	0-1000 (User Configurable)
Path Length	upto 5M	
Accuracy	±1%	
Cleaning	Oil & Moisture Free Air	
Output	RS485 & 4-20mA (Optional)	
Ambient Temperature	-5 ~ 50°C	
Protection Class	IP65	
Power Rating	230±10%VAC, 50W	

### BENEFITS

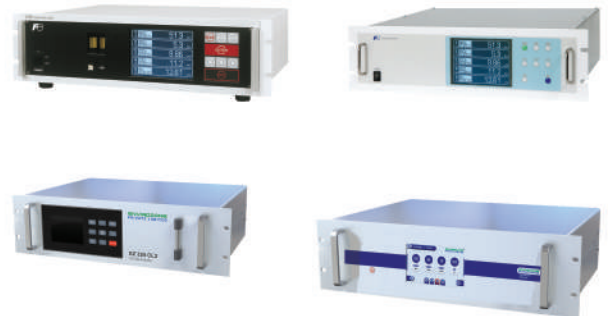
1. Simple Installation
2. Better Accuracy
3. Rugged design with no moving parts so low maintenance
4. Latched head & lid design to enable ease of access for installation & maintenance

### EZ320 TR & LBS: Installation



# GAS ANALYZER FOR STACK EMISSION

The gas analyzers employ NDIR/UV DOAS technology to enable concurrent and uninterrupted measurement of the concentration of up to five gases. These analyzers exhibit outstanding long-term stability, a compact form factor, and straight-forward operation. The sensors, characterized by low impedance, demonstrate superior noise resistance. Moreover, as they lack movable parts, they are immune to vibration and exhibit remarkable resilience to moisture interference.



## SAMPLE HANDLING & CONDITIONING SYSTEM

**Hot & Wet Extraction:** Sample is extracted from the stack using heated sample probe, transferred to the analyzer using heattrace line to avoid condensation. Further sample is cooled and moisture is removed before analyzing.

**Cold & Dry Extraction:** Sample is extracted, cooled, moisture removed at the sampling point itself and transported to the analyzer using simple PTFE line.

 REMOTE CALIBRATION

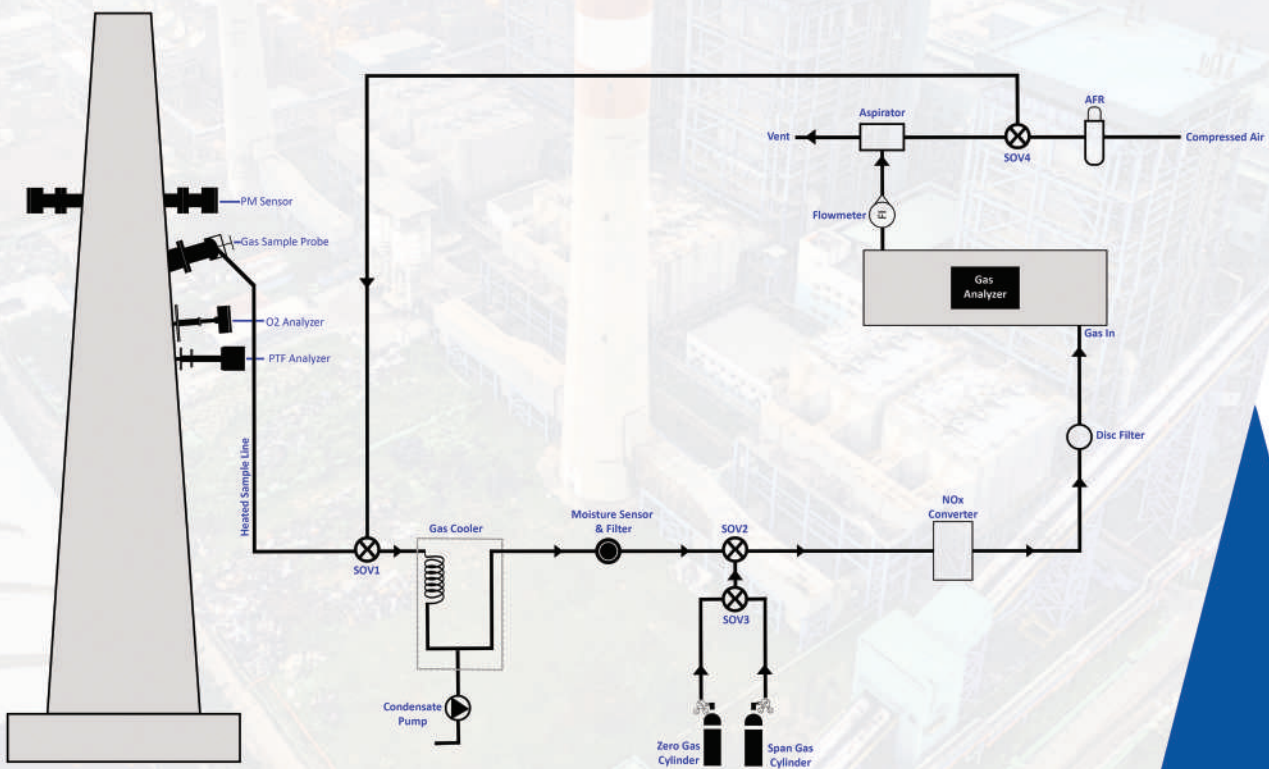
 DATA NORMALIZATION



## TECHNICAL SPECIFICATON

Measuring Principle	NDIR/UV DOAS/NDUV/ZIRCONIA
Measureable Gases	SO <sub>2</sub> , NO <sub>x</sub> , CO, CO <sub>2</sub> , CH <sub>4</sub> , O <sub>2</sub> , & more
Measureable Range	0~1000PPM (other range of request)
Linearity	±1%F.S.
Zero Drift	±1% ~ ±2%F.S./Week
Span Drift	±1% ~ ±2%F.S./Week
Response Time	Within 60 sec (90% response from gas inlet) varies depending on the components to be measured and the measurement range
Display	LCD with Backlight/Color Touch Screen
Power	230VAC, 50Hz

### CEMS Pneumatic Scheme





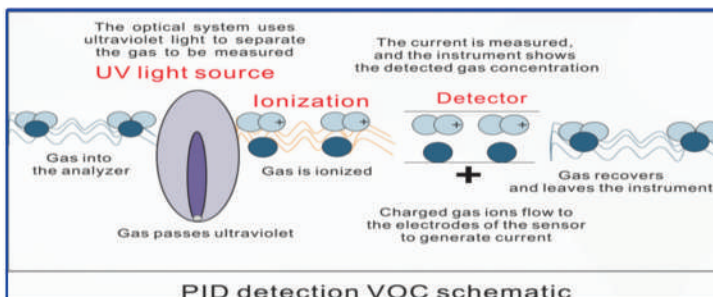
# VOC ANALYZER

## BASED ON PID (Photoionization Detection)

EZ320 VOC, Continuous Emission Monitoring System uses **Photoionization (PID)** principle for gas detection. The ultraviolet light generated by the UV lamp is irradiated on the target gas. The target gas is ionized after absorbing sufficient ultraviolet light energy. The concentration of the target gas is detected by measuring the current generated due to gas ionization.

The system consists of sampling unit, sensor unit and the display unit. The sample gas enters the PID gas detector through suction pump. The detector transmits the processed concentration signal to the display unit.

SPECIFICATION	
Measuring Principle	Photoionisation (PID)
Measureable Gases	Benzene, Xylene, Naphthalene, Octane, Ethylene, Cyclohexane, Aceton, Propionaldehyde, Ethers, etc.
Range & Lower Limit	0~50PPM (Customizable)      100PPB
Drift/Repeatability	±1% ~ ±5%
Measurement Error	<±5%
Sample Flow	2L/min
Display	5" Coloured Touch Display
Output	RS485, 4-20mA (Optional)
Power	230±10%VAC, 50Hz, 50W



# AMBIENT AIR QUALITY MONITORING SYSTEM

**PM<sub>2.5</sub>, PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>2</sub>, CO, O<sub>3</sub>, TVOC, etc** (Based on Laser Scattering & ECD Method)

## DustCount

Dustcount is an Online Particulate Monitoring System for Ambient applications. It is capable to monitor various particulate matter like PM1, PM2.5 & PM10. Dustcount is an ideal choice for applications like construction sites, mines, quarries, port, research projects, etc.

## Poll-IQ

Poll-IQ is an Ambient Air Quality Monitoring System (AAQMS). It is capable to monitor PM2.5, PM10, SO2, NOx, CO, O3 and many more.

## OdoCount

Odocount is the Real-time Odour Emission Tracking Solution. Odocount detect, measures and monitors the odourful gases and gaseous contaminants on a continuous basis like Ammonia (NH3), Hydrogen Sulfide (H2S), Volatile Organic Compounds (TVOCs), Methyl Mercaptan (CH3SH), Meteorological Parameters, and many more.

## AQ1

AQ1 is an industrial grade single parameter air quality monitor with automation capabilities. This product range consists of critical parameters and toxic gases like Total Volatile Organic Compound (TVOC), Ammonia (NH3), Hydrogen Sulfide (H2S), Methane (CH4), Carbon Monoxide (CO), Formaldehyde (CH2O), Particulate Matter, Ambient Noise.

### AIR QUALITY DATA GGEPIIL - SANGLI PLANT PARAMETERS

S.N.	PARAMETER	UNIT	VALUE
4	NO2	(ug/m3)	0
5	HCL	(ug/m3)	0
6	TVOC	(ug/m3)	0

Manuf. By. ENVIROZONE PVT. LTD.





# AMBIENT AIR QUALITY MONITORING SYSTEM

## USEPA Approved Analyzers

### PM10 & 2.5

Beta ray attenuation technology measures PM10 and PM2.5 levels in the air by assessing the reduction in intensity of beta radiation passing through a sample containing airborne particles. The method employs a beta radiation source and detectors to determine particle concentration, offering a reliable means for assessing air quality and environmental impact.



### SO2

UV fluorescence technology continuously monitors atmospheric SO2 by shining UV light on the air sample. SO2 molecules absorb the light and emit fluorescence, which is measured to determine SO2 concentration. This real-time method is sensitive and vital for environmental compliance and assessing air quality impacts.



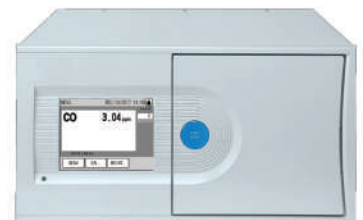
### NOx

The cross-flow modulated semi-decompression chemiluminescence method measures NOx in ambient air by inducing a chemiluminescent reaction between nitrogen oxides and ozone. Controlled modulation of air and reagent flow rates enhances sensitivity. The emitted light is detected and measured, providing an accurate assessment of NOx concentrations for environmental monitoring.



### CO

The analyzer is designed for the continuous monitoring of CO concentrations through the application of a Non-dispersion Cross Modulation Infrared Analysis method. It incorporates an autonomous, internal dry-method sampling mechanism to attain elevated levels of sensitivity and precision. The dry method is favored for atmospheric pollution monitoring due to its ability to continuously monitor and instantly analyze gases in their unaltered state, coupled with minimal maintenance requirements.



### O3

The analyzer employs a cross-flow modulated ultraviolet absorption method to continuously monitor atmospheric ozone levels. It features an independent, internal dry-method sampling device, ensuring heightened sensitivity and accuracy. The dry method's minimal maintenance requirements and ability to instantaneously analyze gases in their unaltered state make it a preferred choice for atmospheric pollution monitoring.



# AMBIENT AIR QUALITY MONITORING SYSTEM

## BTEX Analyzer

This instrument utilizes chromatographic column separation and pre-concentration technology to analyze CH<sub>4</sub> and NMHCs in ambient air. The sample gas is quantified in a loop, undergoes separation in the CH<sub>4</sub> analysis column, and is detected by the FID detector. Simultaneously, NMHCs are enriched through an adsorption tube in the pre-concentration module before analysis using high-temperature thermal desorption in the FID detector.



## HC/NMHC Analyzer

This instrument employs chromatographic column separation and pre-concentration technology to analyze CH<sub>4</sub> and NMHCs in ambient air. After passing through the quantitative loop for quantification, the sample gas enters the CH<sub>4</sub> analysis column for separation, with the CH<sub>4</sub> components then detected by the FID detector. Simultaneously, in the pre-concentration module, NMHCs are enriched through an adsorption tube, and the desorbed sample is analyzed by high-temperature thermal desorption in the FID detector.



## Weather Sensor

Ultrasonic Weather Monitoring Sensor, a sophisticated device delivering real-time data on essential environmental parameters. This advanced sensor measures Wind Speed, Wind Direction, Ambient Temperature, Relative Humidity, Barometric Pressure, Rainfall, UV Index, and Illumination. With ultrasonic technology and precision sensors, it offers accurate insights for applications such as agriculture, energy, and climate research.



Dynamic Calibrator



H<sub>2</sub> Gas Generator



Zero Gas Generator

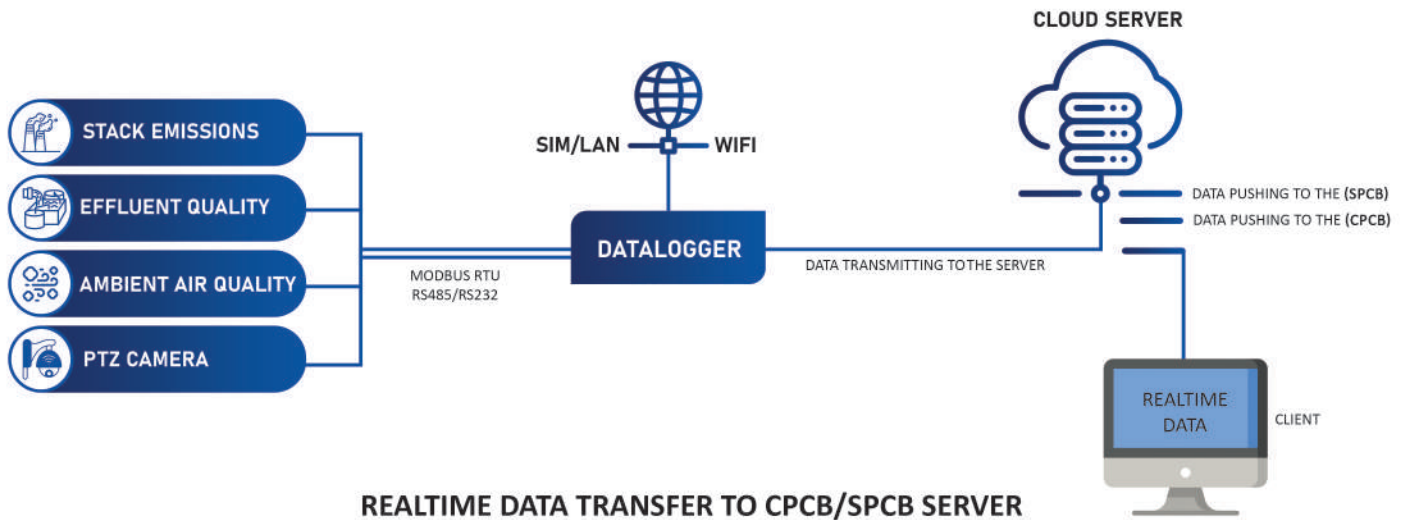
# EFFLUENT QUALITY MONITORING SYSTEM

## COD, BOD, TSS, TOC, PH, etc

The EZL600 Effluent Water Quality Analyzer have an integrated control unit and sensors/probes. It is designed for continuous online measurement of absorption spectra (UV-VIS Spectrophotometry). The analyzers can be operated either directly immersed in liquid media (In-situ) or in Extractive flow cell setup. It is capable of making a simultaneous measurement for various parameters and is perfect use for water quality measurement and inspection of river water, groundwater, effluent and municipal waste water etc.

SPECIFICATION	EZL600-Extractive & EZL600-In-situ
Measuring Principle	UV-Vis Spectrophotometry (Dual Beam, Full Spectrum)
Measurement Range	COD & BOD: 0~500mg/l, 0~1000mg/l   TSS: 0~200mg/l, 0~1000mg/l TOC: 0~500mg/l, 0~1000mg/l   pH: 0-14
Accuracy	±10%
Repeatability	±2%
Zero Drift	±1%F.S.
Span Drift	±2%F.S.
Linearity	±2%F.S.
Digital Output	RS485 Modbus RTU
IP Grade	IP65/IP68 (Optional)
Display	7" Coloured Touch Screen
Power	230±10%VAC, 50Hz





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