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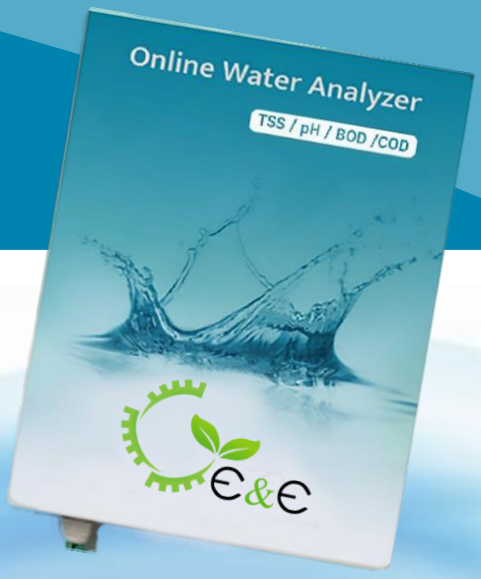
Effluent Quality Monitoring System (EQMS)



COD pH TOC TSS NH4 CL2 BOD DO

EQMS (Effluent Quality Monitoring System) technology is based on unique method UV-Visible Spectrophotometry which associate proprietary high resolution spectrograph with Fourier Transform & Least Square mathematical treatment.

Our goal for the future is to continue to provide customers with reliable instruments, proven methods, easy procedures, and outstanding technical support. We will strive to be best choice brand offering trust and assurance to our customers

Major Applications

- ✓ Plant treatment
- ✓ Water treatment
- ✓ Pharmaceutical applications
- ✓ Biological applications
- ✓ Fertilizer applications
- ✓ Boiler feed water
- ✓ Oxidizing applications
- ✓ Bilge water in ship applications
- ✓ Swimming pool applications
- ✓ Water quality monitoring
- ✓ Bleaching applications
- ✓ coloring applications
- ✓ and many more

Alarms For Low & High

Automatic Operation

Low Cost Of Maintenance

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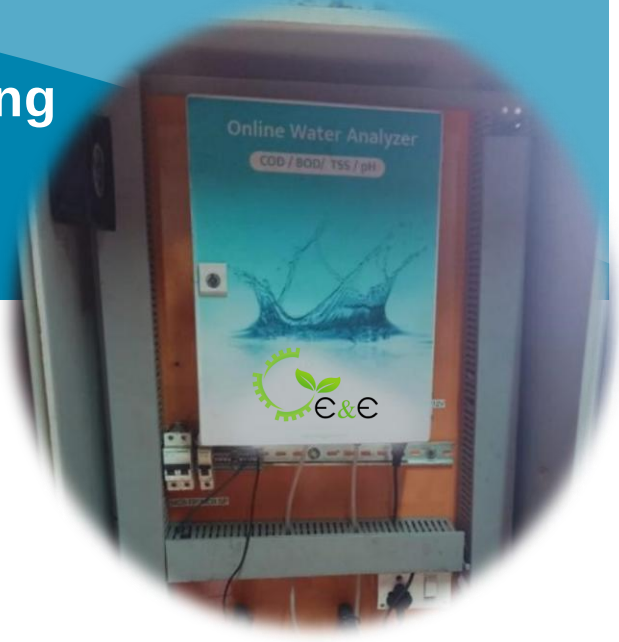


Measurement Principle

EQMS (Effluent Quality Monitoring System) analyser based on Ultraviolet/Visible (UV/Vis) absorption, which has found increasingly wide application in process industries. The spectrum of interest here extends from 200 nm to 750 nm. Direct absorbance for COD, BOD, TOC, NO3, COLOR, pH, TSS and Cr bring fast and stable measurements.

This unique method allows measurements on extremely turbid or colored samples like Exceptional selectivity and no interference has never been reported after years of operation on many different applications.

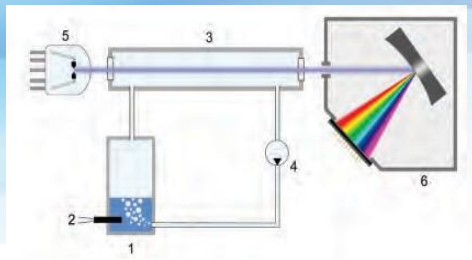
The patented flow cell allows very high level of suspended solids without clogging. The turbidity is automatically compensated by a dual-wavelength method.

The UV source is a Xenon flash lamp specified for 109 flashes that corresponds to more than years of life time with one measurement every minute.

Physico-chemical measurements like pH, ORP, dissolved oxygen, conductivity can be added to the internal measurements by using external probes. The dissolved oxygen probe is based on fluorescence method for a lower maintenance and higher stability

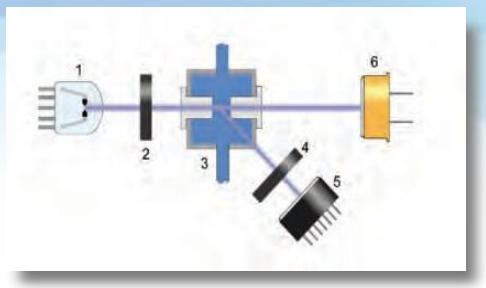
UV Absorbance Principle

1: Xenon lamp
2: Flow cell
3: Beam Splitter
4: Peak filter
5: Peak detector
6: Reference filter
7: Reference detector



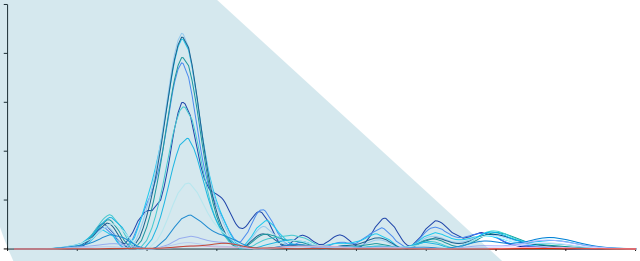
UV Absorbance (liquid and gas phase)

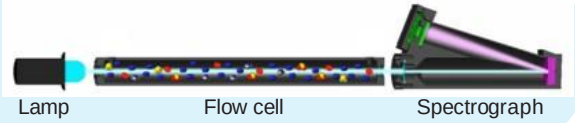
1: Stripping Pot
2: Temprature Probe
3: Gas Flow cell 4: Gas Pump
5: Xenon Flash Lamp 6: Spectrograph



UV Fluorescence principle

1: Xenon lamp
2: Excitation filter
3: Flow cell
4: Emission filter
5: Photomultiplier 6: Reference photo detector





- ✓ High degree of stability, selectivity and sensitivity
- ✓ No second pollution
- ✓ Up to eight components measured simultaneously
- ✓ Non–contact with sample

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Effluent Quality Monitoring System (EQMS)

Technical Datasheet	
Analyser Type	Cabinet Type & Multiparameter
Measuring Principle	COD/ BOD/ TSS: UV light absorption (Scan between 200nm and 750nm) pH: Electrode & Potentiometric
Measuring Range	COD: 0 – 1000 mg/l
	BOD: 0 – 1000 mg/l
	TSS: 0 – 1000 mg/l
	pH: 0 – 14 pH
Operating Humidity	5 - 95% non-condensing
Operating Temperature	0-50 °C
Accuracy	±5% of certified reference standard
Response Time	≤60 Seconds
Communication	*RS485 & *RS232 available for communication *USB port available for USB communication
Data Transfer features	• PDF/Excel report from Server • All parameters shall be displayed on HMI/Display and Online Web server software accessible through dedicated username and Password. • Sampling shall be done at pre-designated time interval, which can be varied as required by the user. • Server for uploads data to CPCB/SPCB. • Cloud based DATA logger is used to transfer data to CPCB/ SPCB Portal. • Visual alarm shall be activated when the status increases above set limit (Optional). • Additional custom features as required by the user (Optional)
Memory	Up to 16 Gb with date and time
Display	7'' HMI color screen
Power supply	220 V AC nominal
Consumption	60W max.
Calibration requirement	Zero Calibration: an auto zero is performed at every cleaning cycle. Span: Factory calibrated. No further adjustment is normally required.
UV source	Xenon Flash Lamp
Additional Features	Automatic Zero calibration facility
	Online fault rectification. Optional Inbuilt System for remote control to access troubleshooting
	Analyzer is cabinet type for easy operation, maintenance & troubleshooting.
	USB port is available for recorded measurement download, screen copy function (easy troubleshooting) & software update

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Effluent Quality Monitoring System (EQMS)

+ Features

QUALITY TESTED

Our engineers have developed a wide range of advanced solutions and services to help monitoring the quality of water and air

BEST TECHNOLOGY IN UV-SPECTROSCOPY

- High degree of stability, selectivity and sensitivity
- No second pollution
- Up to eight components measured simultaneously
- Non-contact with sample

FRIENDLY DESIGNE

- No moving parts in the detector module (Each channel can be optimized for sensitivity, one spectral range and stability)
- Superior design and manufacturing methods make it faster and easier to use
- Compact simple design, less than 14 KG

ECONOMY

- Customizable detector module: different detector for each different chan- nel (Repeatability, reproducibility, stability, low maintenance analytical method transferability.)
- UV-radiation source with extremely long life 109 emitting, and not heated

EASY TO USE

- Friendly screen, easy to handle
- USB collects Data
- <10s respond time
- Easy installation
- Various applications