



## Uniphos COD Analyzer

**Uniphos  
COD Analyzer**



**Uniphos  
COD Digester**

### Uniphos COD Analyzer

Chemical Oxygen demand is defined as the amount of oxygen (mg/L of sample) required for the oxidation of all the organic compounds present in the water sample. It is one of the quality parameters measured for industrial waste water. Permissible limits, for various effluents, either for accepting them in ETP or releasing them to the environment are set by the competent authorities. The Uniphos COD analyzer consists of a portable sample digester and a handy spectrometer calibrated to directly measure the COD value.

#### SALIENT FEATURES:

- Rugged, portable design with no moving parts
- On board memory, stores up to 1000 test results along with time and date
- Computer and printer interface

#### BENEFITS

- More than ten times reduction in analysis cost.
- Ten times reduction of samples and chemicals used.
- Ten times reduction in hazardous waste production.
- Reduction in space and operator time.
- Total digestion time is 2 hours, but operator analysis time is less than 2 minutes.

#### APPLICATION AREAS

- Municipal water
- Industrial process fluids
- Drinking water
- Waste water and effluent water
- Ground and surface water



## UNIPHOS COD ANALYZER

Uniphos COD Analyzer is a microprocessor-based instrument for the determination of COD in the range of 50-2000 mg/L in water sample. The analysis involves the measurement of absorbance of the digested sample using the COD Analyzer and relating it to the COD of the sample. The digestion of the sample water involves the

water sample being treated with Mercuric Sulphate to remove the interference of chloride ions and subsequently mixing it with an appropriate amount of oxidizer mixture viz. Potassium Dichromate, Silver Sulphate catalyst and Sulphuric Acid and digesting the mixture in a closed vial at 150°C for 2 hours.

## SPECIFICATIONS

### COD Analyzer

**Principle:** Absorption method

**Oxidiser & Complexing Agent:** Potassium Dichromate, Mercury Sulphate in acidic medium.

**Measuring Range:** 50-2000 mg/L without dilution. Range extended up to 200,000 mg/L with 5, 20 or 100 times dilution

**Resolution:** 1 mg/L

**Accuracy:**  $\pm 10\%$  of reading, Also depends on accuracy of standards

**Display:** 16 x 2 LCD

**Reproducibility:**  $\pm 10\%$  of reading

**Measuring Time:** Less than 30 sec. /sample

**Sample Volume:** 1ml

**Dimensions:** 240mm(L) X 125mm(B) X 110mm(D).

**Weight:** 2.3 kg

**Storage:** Can store up to 1000 test results with date & time

**Interface:** Serial interface to the Computer or printer for data transfer

**Data Transfer:** Data can be downloaded to the printer or on the computer through RS-232 port

### COD Digester

**Heater Block Dimensions :** 350mm(L) X 290mm(W) X 220mm(D)

**Display :** LED Based Digital Display

**Power Consumption :** 250 W

**Temperature Range :** Room Temperature to 150°C

**Temperature Accuracy :**  $\pm 1^\circ\text{C}$

**Temperature Controller :** PID

**Tube Cavity :** 17mm(Diameter) x 40mm(Depth)

**Number of Cavities :** 25 Cavities to Accommodate 25 Glass Tubes

**Glass Tube Size :** 16mm(Outer diameter) x 75mm (Length)

**Timer :** The timer initiates as soon as the temperature is achieved. When the set time period is over the heater get switched off automatically and give the alarm.

**Buzzer :** Alarm for cycle end

**Power Supply :** 230V AC, 50/60Hz

**Weight :** 12.5 kg



Safety & Environmental Monitoring System

## THREE STEPS OF MEASUREMENT



1. Transfer to a clean vial
  - a) 1 ml sample
  - b) 0.6 ml of reagent A
  - c) 1.4 ml of reagent B and mix thoroughly



2. Place the vial in the Uniphos COD Digester maintained at 150°C. Heat for two hours and cool the sample to room temperature



3. Place the vial in the Uniphos COD Analyzer and make the measurement

Due to continuous development, we reserve the right to change specifications without prior notice.



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