UNIPHOS TOTAL CYANIDE ANALYZER

Total Cyanide in effluent water refers to the sum of all cyanide-containing compounds including free, week acid dissociable and also strong metal cyanide complexes. With acidification (pH <2) and UV irradiation, all cyanide complexes can be broken down to release the free cyanide. Uniphos Total Cyanide analyser works based on ASTM 7511-09 method which includes acid digestion with UV irradiation as described above and determination of total cyanide by amperometric method. Built in diagnostic features for reagent level alarm and the component malfunctions

Technical Specifications:

Operating principle	*UV digestion with amperometry*
Measurement technique	*Amperometric detection with three electrode system*
Measurement Range	*10 – 2000 ppb, 2000-20000 ppb*
Reference method	*ASTM 7511-09e2*
Measurement accuracy	*±20 ppb for 10-200 ppb* *±10% of reading for ≥200 ppb*
Calibration	*Single point calibration*
Sample injection	*Automatic*
Sampling interval	*30 min*
Analysis time	*30 min*
Operating temperature	*20^{O}c to 50^{O}C*
Display	*HMI full touch screen*
Reagents	*NaOH, H_2SO_4, distilled water, Hypophosphorous acid, Sodium Arsenite, Bismuth nitrate*
Power	*230 V AC/ 60 Hz*
*Instrument dimensions (H*L*B)*	*1200 X 400 X 600 mm*
Instrument weight	*70 kg*

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

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UNIPHOS

S. No.	Features	Advantages
1.	**Measures Total Cyanide by UV-digestion with amperometric detection technique according to ASTM Method D7511-09 and OIA 1678.**	1. Eliminates preliminary 2-hour acid distillation step prior to analysis. 2. Reduces analysis time from hours to minutes. 3. Method is broadly applicable to drinking water, surface water and domestic or industrial wastewater samples. 4. Provides more reliable data than methods employing a preliminary acid distillation step.
2.	**Interferences and Total Cyanide Analysis**	1. Technique has fewer analytical interferences (positive and negative) and consequently supports a lower method detection limit (MDL) and a broader measurement range. 2. Avoid the formation and destruction of cyanide compounds that occur during acid distillation. 3. Performs UV digestion in acidic condition to break down strong metal- cyanide complexes at ambient temperature.
3.	**Amperometric Detection**	1. Amperometric detector has three electrode system which uses non-toxic reagent. 2. Eliminates use of hazardous pyridine, barbutaric acid reagents required in cyanide analysis by spectrophotometric method.
4.	**Fully automatic**	1. Permits overnight operation without any human intervention. 2. Increased sample throughput with decreased direct labour costs. 3. Significantly reduces cost and time per analysis. 4. Very less sample volume which reduces the hazardous/toxic waste.
7.	**Compact design with HMI & PLC**	1. Modular analyzer design occupies minimal bench space and supports easy operation. 2. Reliable and rugged.
8.	**Communication**	1. RS-232 2. RS485 Modbud-RTU 3. 4-20 mA (As per CPCB/SPCB norms)