

Analyzers that work.

# VOC / HYDROCARBONS IN WATER ANALYZER

Model 204 PermaStream™ | Real-time measurement of VOC leaks in clean or dirty water



## No Sample Conditioning Required

Measures at process pressure, temperature and flow. No filters required. Send sample back to process header without SRU

## Ultra-low Maintenance

The solid state analyzer has no moving parts, providing low upkeep requirements

## Dependable Operation

KECO PermaStream™ membrane technology creates an ultra-clean sample for sensor. Typical 99% uptime.

## Consumable Free

The analyzer requires no costly consumables for analysis

## Applications

- Cooling tower / heat exchanger water
- Produced water
- Waste water
- Storm runoff water
- Boiler condensate
- Monitoring at desalination plants
- Effluent water
- Bilge water discharge
- Municipal water treatment plants

## Product Description

The KECO 204 PermaStream™ accurately measures total hydrocarbons / VOCs including aliphatic and aromatic hydrocarbons. KECO Membrane Technology eliminates false™ high readings and false high alarms as seen in UV Fluorescence Methods. The online analysis provided by the Model 204 PermaStream™ is economically superior to inaccurate laboratory analyzers where unstable grab samples result in VOC deterioration which produces analytical errors. The water sample continuously flows into the analyzer and the heated PermaStream™ unit effectively strips the hydrocarbons in the water based on Henry's Law. A carrier air then sweeps the hydrocarbons from the PermaStream™ and transports them to the metal-oxide sensor for a quantitative analysis. The advanced HMI (Human Machine Interface) quantifies and displays the values on the color touchscreen display, 4-20mA output loop and can communicate via RS-485, TCP/IP Ethernet and Modbus. Remote and Web based monitoring and control of the analyzer is available as an option.

# KECO

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# Typical Specifications

## DISPLAY

- Color Touchscreen
- 4 Concentration Digits
- Non Intrusive Display (Div 2 & GP)

## AMBIENT TEMPERATURE RANGES

- 1°C to 55°C (operating) without ext. cooling/heating
- 0°C to 70°C (storage)
- PPB range may require temp. controlled building

## ANALOG

- Isolated 4-20mA

## ANALYTICAL PERFORMANCE

- Resolution: <50 ppb (app. dependent)
- Accuracy:  $\pm 3\%$ \* of full scale

\*Accuracy may be improved significantly near points of interest including ppb level concentrations

- Repeatability:  $\pm 3\%$  of full scale
- Linearity:  $\pm 3\%$  of full scale
- Response time: Initial 60 sec. @ sensor (conc. dep.)
- Sensor life: Avg. 5-10 years

## DETECTION RANGES

- 0-1 ppm by wt. (or 0-1,000 ppb by wt.)
- 0-10 ppm by wt.
- 0-50 ppm by wt.
- 0-100 ppm by wt.
- 0-500 ppm by wt.
- Customer specified (contact factory)

## WEIGHT

- ~100 lbs

## DIMENSIONS

- 3 ft X 2 ft X 1 ft

## UTILITIES/SETTINGS

- 110VAC or 220VAC
- 200 Watts max.
- Carrier Air: 200 ml/min (15 psig max.)
- Sample flow: 0.5 L/min min.
- Sample pressure: 150 psig max.

## AREA CLASSIFICATIONS OPTIONS

- Class 1 Division 1 (G1 version only)
- Class 1 Division 2
- Zone 1 (G1 version only) or Zone 2

## AVAILABLE OPTIONS

- Concentration relay alarms
- Diagnostic/fault alarms
- Low carrier, sample flow relay alarms
- RS-485, TCP/IP Modbus
- Remote monitoring/control with web

## TECHNOLOGIES

- PermaStream™(KECO Membrane Technology)
- Advanced VOC Sensor (solid state)

## Advantages

**Consumable Free** There are no costly consumables needed for analysis

**Dependable operation** ASI Membrane Technology creates ultra-clean sample for sensor

**Ultra low maintenance** The analyzer is completely solid state with no moving parts

KECO provides design and application engineering assistance for the User's analyzer requirements. For a quotation, please complete Analyzer Quote Request Form at [www.LiquidGasAnalyzers.com/quote](http://www.LiquidGasAnalyzers.com/quote)