

# Naiade



hemera  
analyzers

## Liquid Analyser



**AAVOS** International

Your partner in process analyses  
More than 20 years of experience





# FTLS UV Liquids Analyser

Powered by **HEMERA**

This uniquely rugged and simple design utilizes a high resolution spectroscopy analyzer which uses ultraviolet energy in different ranges for the determination of the concentrations and the characterisation of the components in liquid

## APPLICATIONS

Major Applications:

- Plant treatment
- Water treatment
- Pharmaceutical applications
- Biological applications
- CxHy in water
- 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(

## FEATURES

- Ranges vary from ppb to 100%
- +/-1% accuracy, +/-1% repeatability
- Modbus Serial communications,
- Dual Isolated 4–20 mA outputs
- Fast response 2 seconds
- Low detection limits
- No chemicals required
- No consumables required
- Multiple components measurable

## VALUE

The Liquids analyzer can measure H<sub>2</sub>S, NH<sub>4</sub><sup>+</sup>, HC, VOC, TOC, O<sub>2</sub>, Cl<sub>2</sub>, PH, and much more in process streams. The unit has 4–20 mA outputs, alarms, plus trouble and fault alarm relays. An external menu-driven interface allows operator functions without opening the cover. The Naïade liquids analyzer displays the measured





concentration(s) in user specified units and can produce a graph on the screen as well. Calibration is performed manually via the operator interface or automatically when connected to a calibration bottle with the optional auto calibration facility. The Naïade liquids analyzer is available with a number of optional sample systems and accessories to handle various applications. Aavos can assist you to develop appropriate sample system(s).

### MEASURING PRINCIPLE

The measuring principle FTLS (Fourier Transform Least Squares) is based on light absorption according to Beer--Lambert's law.

- HIGH RESOLUTION SPECTROGRAPH
- XENON LAMP

### LOWEST and HIGHEST RANGES Available for Different Components (Excerpt)

In total, the Naïade family of process gas analyzers can detect more than 200 components. The following table is an excerpt, showing the most commonly used components. Contact your Hemera / Aavos representative for information on configurations or liquids that are not listed.

Components		Standard Range*		Detection Limit
		Lowest Range	Highest Range	
Ammonium	NH <sub>4</sub> <sup>+</sup>	0 – 10 mg/L	0 – 1000mg/L	0.1mg/L
Chlorine	Cl <sub>2</sub>	0 – 5 mg/L	0 – 150mg/L	0.1,g/L
Chlorophyll A / B	Algea	0 – 200 µg/L	0 – 1 mg/L	0.1 µg/L
Color	Pt/Co	0 – 100 Pt-Co	0 – 1000 Pt-Co	0.1 Pt-Co
Conductivity	Salinity	0 – 200 µS	0 – 2000 µS	10 µS
Dissolved Oxygen	O <sub>2</sub>	0 – 1 mg/L	0 – 15 mg/L	0.05 mg/L
Hydrocarbons	HC	0 – 10 mg/L	0 – 100 mg/L	0.02 mg/L
Hydrogen Sulfide	H <sub>2</sub> S	0 – 5 mg/L	0 – 100 mg/L	0.02 mg/L
Nitrites	NO <sub>2</sub>	0 – 10 mg/L	0 – 10 mg/L	0.1 mg/L
Nitrates	NO <sub>3</sub>	0 – 10 mg/L	0 – 100 mg/L	0.1 mg/L
Organic Matter	COD <sub>eq</sub>	0 – 10 mg/L	0 – 100mg/L	0.1 mg/L
pH	Acid/Base	1 – 14 pH	1 – 14 pH	0.1 pH
Phosphates	PO <sub>4</sub> <sup>3-</sup>	0 – 1 mg/L	0 – 3 mg/L	0.1 mg/L
Sulfides	S <sup>2-</sup>	0 – 10 mg/L	0 – 100 mg/L	0.1 mg/L
Total Organic Carbon	TOC	0 – 10 mg/L	0 – 100 mg/L	0.1 mg/L
Turbidity	TSS	0 – 100 NTU	0 – 1000 NTU	0.01 NTU
Volatile Organic Carbon	VOC	0 – 1 mg/L	0 – 10 mg/L	0.01 mg/L

\* Remarks: Typical values, please contact Aavos for more detailed information.



## SPECIFICATIONS

<b>Analysis:</b>	
Method	UV spectroscopy by FTLS 180nm-380nm * See remarks
Range	ppb level to 0-100% * See remarks
Accuracy	+/-1% of full scale
Repeatability	+/-1% of full scale
Linearity	+/-1% of full scale
Detection limit	+/-1% of full scale * See remarks
Response time	2 seconds
<b>Sample:</b>	
Temperature	TBA* See remarks
Flow	0-2 l/min
Pressure	0-0.5 Barg
Connections	3.2x6.4mm
<b>Enclosure:</b>	
Dimensions	400x300x200mm (HxWxD)
Weight	20kg 40kg depending on conditioning system required
Materials	SS 316 / NEMA 4X
Protection	IP65
<b>Power:</b>	
Supply	90-264VAC / 50-60Hz
Consumption	100W*
<b>Output:</b>	
Analog	4-20mA
Alarm	Failure relay
Interface	RS485 (Modbus)
<b>Certifications:</b>	
Approvals	CE / ICE 61010-1/ICE 61326 / ATEX (optional)

\* Remarks: Typical values. Contact Aavos for detailed specifications

### ORDERING INFORMATION:

Application  
 Range  
 Process conditions  
 Wall mounting or free standing frame  
 Power supply

### REPRESENTED BY:

