INDUSTRIAL AND SURFACE WATER MONITORING

AQUAGAS MONITORING SYSTEMS

OPAL Oil Pollution Alarm

Description

The OPAL is the last generation of detector designed **for online and Real-time suspended Hydrocarbons** monitoring. It uses **Infra Red scattering** to enables early detection of oil in any type of water. Reagent's free, the OPAL represents the most cost effective solution and matches a large range of application requirements.

Applications

Process water condensates, thermal exchangers, industrial water, urban waste water and industrial effluents.

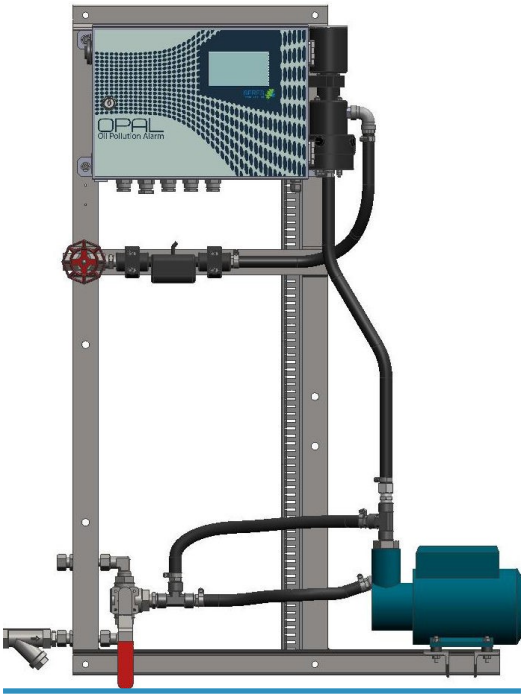
Oil & Gas

ONSHORE refineries, oil drilling plants, energy, petrochemical and more

OFFSHORE Oil platforms and ships

SERES environnement

Early detection of oil traces in water



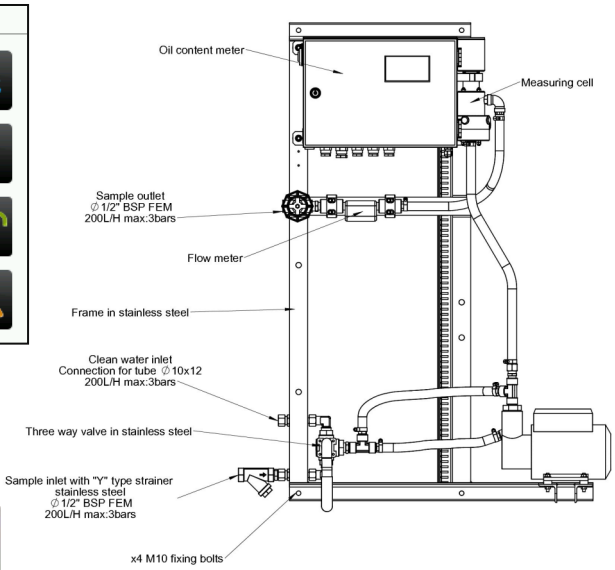
Key functions for enhanced monitoring

- COMPACT SYSTEM, FAST AND EFFICIENT
- IR LIGHT SCATTERING, FOR AUTOMATIC AND ONLINE MONITORING
- INTUITIVE TOUCHSCREEN INTERFACE
- EXTENDED SELECTION OF INPUTS AND OUTPUTS
- AUTOMATIC MEASURING CELL CLEANING
- PROGRAMMABLE MEASURING RANGE FROM 0-10 TO 0-500PPM, OTHER ON REQUEST
- EASY AND COST EFFICIENT OPERATION
- NO REAGENT REQUIRED
- LARGE RANGE OF OPTIONS
- ENGINEERED SPECIFIC VERSIONS

IMO INTERNATIONAL MARITIME ORGANIZATION

Fully automatic online analyser

Graphic interface display of concentration & flow, easy setting, functional tests through touch screen.



Technical Specifications

CONSTRUCTION & ENVIRONMENT

Dimensions Weight & Material	Chassis version 800x1055x250 mm (W x H x D)
	Detector enclosure 460 x 689 x 226 mm
	30 kg approx. incl. chassis - 45kg with cooler
	Chassis in SS304 / detector high impact PS / Measuring cell in Delrin / hydraulic - Flexible thermoplastic piping
Environment & Protection	Installation in safe and sheltered area, away from corrosive atmosphere - IP65
Ambient T°	5 to 55°C
Relative humidity	10 to 90%

ELECTRICAL UTILITIES

Power supply	110 - 240 VAC 50 / 60 Hz
Consumption	Typical 150 VA - Maximum 300 VA

ANALYSIS

Parameters	Refer to list on reverse page / Consult
Range	Programmable 0-10 up to 0-500ppm
Method	Continuous, on line measurement
	Infra Red scattering beam / IR diffusion
Reagents	Depend on parameter and method
Number of streams	1 as standard (optional multistream set up)
Measured parameter	Suspended Hydrocarbons - OIL
Response time	Instantaneous T90% < 3sec
Accuracy	± 1 to 2% end of range
Repeatability	± 1 to 2% end of range

CONNECTIVITY, ALARMS & COMMUNICATION

User interface	Colour LCD display, 4.3'', touch-screen
Data retrieval	Transfer via USB port (sealed USB connection)
Output signal	7 dry contact output relays / 4 outputs 24VDC 1 x 4 - 20 mA, galvanic insulation 1 x serial output RS232 / 1 x serial output RS 485 (JBus)
Input signal	3 digital inputs
Alarms	Thresholds per stream (HI-LO), sample & analyser failure

SAMPLING

Preparation	Filtration if needed
Interferent	Turbidity (optional auto compensation)
Sample inlet	Flow : 200l/h
	Pressure : 0.5 to 3 bar maximum / Free outlet
	Temperature : 5 to 50°C
Hydraulic connections	Inlet 1/2''BSP F
	Outlet 1/2''BSP F
Options	Cooler, ATEX version, Hydrocyclon, multistream...

OPERATION

Measuring cell	Automatically cleaned with recurrently actuated wiper jack
Zero	Performed on clean fresh water 200l/h at 3 bar max. for 10 min once a month
calibration	Quick calibration with integral optical device

1300 850 862 | www.aquagas.com.au | info@aquagas.com.au | 3 Wirranina Place - Currumbin - 4223 QLD

PROCESS CONTROL

Manufacturing industries

Drinking water

ONLINE Water Quality Monitoring Solutions for upstream and downstream purification processes.

Ensure the optimal quality all along the manufacturing and distribution network.

Process water

Integrated solutions for real-time water quality measurements suited to industrial processes.

ENVIRONMENT

Environmental protection and pollution control.

Surface water

REALTIME Monitoring stations or mobile laboratories, for the protection of surface water, spring water, rivers and groundwater.

Sea water

Prevention of sea water by hydrocarbon wastes: Oil tankers, Oil Rigs, Refinery wastes.

References

SERES Environnement (FRANCE) is one of the major actors in the field of online analysis dedicated to **Water Quality Monitoring** in the industry and the environment. Outstanding experience, attentiveness, innovative and effective solutions are the strengths of SERES while meeting everyday challenges with Environment Organizations, Water production & treatment, Oil & Gas, Petrochemical industry, Refineries, Power stations, Paper mills, Metal, food and other industries, Oil rigs, Tankers, Etc. …

Shell, TOTAL, SOLVAY, SANOFI, Coca-Cola, PETROBRAS, HYUNDAI, WÄRTSILÄ, LAFARGE, SAMSUNG, MITSUBISHI MOTORS, DAEWOO, CITROËN, bp, ALSTOM, Chevron

Environmental Compliance & Online Process Analysis

AQUAGAS MONITORING SYSTEMS

AquaGas Pty Ltd is supporting the global industrial community with high performance **Environmental & Process Monitoring Systems** (Continuous Emissions Monitoring Systems, Air Quality Monitoring Systems, Online process analysers, Water Quality Monitoring Systems) specifically designed and built to meet your application requirements.

With extensive expertise and diverse technical skills acquired around the globe, AquaGas Pty Ltd designs, installs, and supports innovative technical solutions, which respond to the requirements of environmental regulations in terms of pollution monitoring and environmental impact assessment. AquaGas Pty Ltd Systems and Services are available in **Australia, New-Zealand and New Caledonia.**

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VALIDATED OVER THE YEARS IN A LARGE FIELD OF APPLICATION

- Solvay
- Rhodia
- Ineos
- FPG Taïwan
- Ciba Geigy
- Sanofi
- Aventis
- PPG
- Arkema
- Asahi Glass
- De Nora
- Total
- Samsung
- Coca Cola
- Lafarge
- Mitsubishi
- Petro Bras
- Alstom...

AQUA GAS

APPLICATIONS

Drinking water

Quality control at all stages : treatment, storage, distribution

Surface water

Study and design of surface water monitoring stations

Waste water

Monitoring of industrial or urban waste water

Process water

Quality control of process water

Oil & Water

Oil in Water Detection & Water in Oil storage tanks

PARAMETERS

TOTAL CHLORINE
FREE CHLORINE
MORPHOLINE
PHOSPHATES
AMMONIA
HYDRAZINE
COLOUR
PHENOLS
SILICA...

HARDNESS
THT
TA
TAC ...

CHROMIUM VI
MANGANESE
ALUMINIUM
COPPER
NICKEL
IRON
LEAD
ZINC...

CHLORIDES
CYANIDES
FLUORIDES
SULFIDES
ARSENIC
SULFATES ...

CERTIFICATIONS

QUALITY MANAGEMENT SYSTEM
ISO 9001:2008 CERTIFIED

Ex ATEX

IMO INTERNATIONAL MARITIME ORGANIZATION

BUREAU VERITAS 1828
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