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Smart water solutions

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Smart water solutions

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SPECTROPHOTOMETRY

INSTRUMENTATION

CHEMICAL REAGENTS

2023 Edition. This edition supersedes all previous editions.

Dear customers, partners and distributors,

Water is increasingly scarce and precious. More than ever, it must be saved, reused while mastering its quality.

The instruments and consumables, manufactured in France, presented in this catalogue are tools allowing their users to control water quality for many applications.

Some new features are presented here:

The LowTuS a sensor dedicated to the measurement of low turbidity range,

BactControl (made in France) to track online bacterial activity includingE. coli bacteria,

The NEON a new portable device.

And of course all the other instruments that you already know quality «made in France» is well established.

All our teams remain at your disposal to discuss your needs for better water management.

Sincerely.
Jérôme Legeai
Managing Director

SUMMARY

PROCESS RANGE

LABORATORY RANGE

INDEX

DIGITAL SENSORS DIGISENS,
Smart sensors for water control

ADVANTAGES

- Universal communication Modbus RS485 / SDI-12
- Compatible with all types of transmitters, recorders, remote control, controller equipped with a RS485 input or SDI-12 ...
- Integrated transmitter (recording of calibration data, history and measurement processing in the sensor)
- Ultra-low power technology

Digital communication

the DIGISENS sensors can connect to any type of recorder, transmitter or controller with a Modbus RS485 input, making data transfer more reliable.

More than 240 indexed sensors can be connected on the same RS485 input.

The digital signal processing combined with the pre-amplification of the measurement allow high reliability.

Integrated transmitter

All calibration data for (offset, slope), history, users and measures be processed directly in the sensor and transmitted via Modbus RS-485.

Mechanical

Digital sensors are compact, rugged and light. They are made of stainless steel or PVC materials for portable or stationary use in the most fouling environments.

Application areas

Wastewater, Industrial effluent, Monitoring of surface water, Fish farming, Drinking water

DIGITAL OUTPUT SENSOR

Rental available

Technical specifications					
	Parameter	**Dimensions**	**Range**	**Accuracy**	**Sensor**
PH/ORP/T°C	Temperature	Diameter : 27 mm Length without cable : 207 mm Weight : 350 g (sensor + cable)	0,00 to + 50,00 °C	± 0,5°C	NTC
	pH		0,00 to 14,00 pH	± 0,1	Combined electrode (pH/reference) : special glass Reference Ag/AgCl. Electrolyte plastogel (KCl)
	ORP		- 1000,0 to + 1000,0 mV	± 2 mV	Combined electrode (Redox/reference) : Platinum electrode, Reference Ag/AgCl. Electrolyte plastogel (KCl)
EHAN	ORP & T°	Diameter: 27 mm Length: 262 mm Weight: 350 g (Sensor + cable 3 m)	-1000,0 to + 1000,0 mV	± 10mV	Combination Electrode (ORP/reference) platinium ring, Reference Ag/AgCl. Gelled electrolyte (KCl)
C4E	Conductivity	Diameter : 27 mm Length without cable : 157 mm Weight : 350 g (sensor + cable)	0,0 to 200,0 µS/cm 0 to 2 000 µS/cm 0,00 to 20,00 mS/cm 0,0 to 200,0 mS/cm AUTOMATIC RANGE	± 1 % of the full scale	C4E Technology 4 electrodes (2 platinum and 2 graphite)
	Salinity		5-60g /kg	± 0,5 % of the full scale	C4E Technology 4 electrodes (2 platinum and 2 graphite)
CTZN	Conductivity	Diameter: 39.80 mm Length without cable : 196 mm Weight : 700 g (sensor + cable)	0,0 -100,0 ms/cm	< 5%	Inductive conductivity sensor compensated in temperature
	Salinity		5-60g /kg		
NTU	Turbidity	Diameter : 27 mm Length without cable : 147 mm Weight : 300 g (sensor + cable)	5 to 50 NTU 5 to 200 NTU 5 to 1000 NTU 5 to 4000 NTU AUTOMATIC RANGE	± 1 % of the full scale	IR 90° technology ISO 7027 compliance
OPTOD	Dissolved Oxygen/T°C	Diameter : 25 mm Length without cable : 146 mm Weight : 450 g (sensor + cable)	0,00 to 20,00 mg/L 0,0 to 200,0 % SAT	± 0,1 mg/L ± 1 %	PONSEL OPTOD® optical luminescence technology ASTM D888 – 05 Compliance ISO 17289
MES5 / VB5	MES5: suspended solids VB5: sludge blanket	Diameter: 63 mm Length: 212 mm Weight: 750 g	TSS: 0-50g/l Turbidity: 0-4000FAU Sludge blanket: 0-100%	TSS: 0-1 SS < 10 % Turbidity: ±5% (range 200 -4000 FAU) Sludge blanket: ±2%	Optical IR (870 nm) based on IR absorption
STACSENSE	SAC254, COD, BOD, TOC, Turbidity	Diameter : 48 mm Lenght : 371 mm (2mm), 419 mm (50mm) Weight : 1600 - 1800 g depends of the optical path	2mm Optical path SAC254 : 0-750 Abs/m CODeq : 0-1300 mg/L BODeq : 0-350 mg/L TOCeq : 0-500 mg/L Turbidity eq : 0-500 FAU 50 mm Optical path SAC254 : 0-30 Abs/m CODeq : 0-50 mg/L BODeq : 0-15 mg/L TOCeq : 0-20 mg/L Turbidity eq : 0-40 FAU	2mm Optical path SAC254 : 1.0 +/- 3% COD : 2.0 +/- 3% BOD : 1.0 +/- 3% TOC :1.0 +/- 3% Turbidity : 5.0 +/- 7% 50 mm Optical path SAC254 : 0.1 +/- 3% COD : 0.2 +/- 3% BOD : 0.1 +/- 3% TOC : 0.1 +/- 3% Turbidity : 1.0 +/- 7%	UV 254 spectral absorption

Interface Signal: RS485 Modbus or SDI-12, Sensor power supply: to 5-12 volts, Max. 5 bars, Cable 9 armoured connectors, polyurethane sheath, bare wire, Protection: IP 68

Accessories

CALSENS Software : CALSENS software is designed for the optimization and exploiting the data of the PONSEL DIGISENS range (digital sensors). Simple, friendly and intuitive this is a support to configure the sensors, the calibration menu, to follow in real time the measurement of the selected parameters and to record the measured parameters.

Box of communication and power supply mono and multichannel Modbus : Destined to the permanent instrument installations and supplementing the offer of digital sensors PONSEL, the junction boxes mono and multichannel PONSEL are easy to install. The module 4001 allows the connection of digital sensors PONSEL with all types of dataloggers, transmitter and remote systems or automates with an input Modbus RS485.

References

Module 4001 - 5 SENSORS BARE WIRE CABLE/1 CONNECTOR FOR ODEON CABLE	PF-ACC-C-00255
CABLE MODULE 4001 - ODEON	PF-ACC-C-00284
MODULE 4200 RS485/USB CONVERTOR FOR ONE SENSOR	NC-FIX-C-00020
MODULE 4200 RS485/USB CONVERTOR FOR TWO SENSORS	NC-FIX-C-00021
CALSENS SOFTWARE	LO-EMB-C-00031
CABLE TO CONNECT A BARE WIRE SENSOR TO ODEON	PF-ACC-C-00082

PONSEL BY AQUALABO

PHEHT: PH, ORP & TEMPERATURE,
DIGITAL technology for optimized measures

The PHEHT sensor has been designed to perform under hard conditions from lakes and rivers, seawater with conductivities of 50 mS/cm and to wastewater with conductivity higher than 200 mS/cm.
This sensor features a "long life" reference. The Plastogel® PONSEL technology increase the lifetime of the probe the need to refill.
This sensor has been designed also for handheld and in situ applications which have been the most difficult situations for a pH/ORP sensor in term of sensor resistance, quick time response, minimal flow dependence and low power consumption.

Digital Technology

The "smart" pH/ORP/Temp sensor stores calibration and history data within the sensor. This allows you a "plug and play" system without re-calibration. Thanks to the Universal Modbus RS485 protocol, the PONSEL pH/ORP/T sensor can be connected to all devices commonly used (Datalogger, Controller, Automat, Remote System…).
Range : • pH : 0 to 14 units • ORP : - 1000 to + 1000 mV • T°C : 0°C to +50°C

Applications

Urban wastewater treatment (inlet/ outlet controls), Sanitation network, Industrial effluent treatment, Surface water monitoring, Fish farming, Drinking water

FOLLOWING NORM ISO 10523

Technical specifications Measures pH	
Measure principle	Combined electrode (pH/ref) : special glass, Ag/AgCl ref. Gelled electrolyte (KCl)
Range	0 – 14 pH
Resolution	0,01 pH
Accuracy	± 0,1 pH
Technical specifications Measures ORP	
Measure principle	Combined electrode (ORP/reference) : Platinum tip, Ag/AgCl AgAgCl. Gelled reference (KCl)
Range	- 1000 to + 1000 mV
Resolution	0,1 mV
Accuracy	± 2 mV
Technical specifications Measures Temperature	
Technology	NTC
Range	0,00 °C to + 50,00°C
Resolution	0,01 °C
Accuracy	± 0,5 °C
Response time	< 5 s
Storage temperature	0°C to + 60°C
Protection	IP 68
Interface	Modbus RS-485 / SDI-12
Power supply	5 to 12 volts
Power consumption	Standby : 25µA Average RS485 (1 measure/second) : 3,9 mA Average SDI12 (1 measure/second) : 6,8 mA Current pulse : 500 mA
Technical specifications Sensor	
Dimensions	Diameter : 27 / 21 mm ; Length : 207 mm
Weight	350 g (sensor + 3 m cable)
Material	PVC, DELRIN, special pH glass, platinum, polyamide
Pressure	5 bars
Cable	Coaxial armoured, Polyurethane, bare wire or Fisher connector
Protection	IP68

ADVANTAGES

- Combination pH/ORP/Temp sensor
- Digital Sensor : Modbus RS 485 / SDI-12
- Calibration data inside
- pH/ORP Cartridge

References

pH/ORP/T Digital Adapter - 3 m cable without pH/ORP sensor	PF-CAP-C-00143
pH/ORP/T Digital Adapter - 7 m cable without pH/ORP sensor	PF-CAP-C-00144
pH/ORP/T Digital Adapter - 15 m cable without pH/ORP sensor	PF-CAP-C-00161
pH/ORP/T Sensor (Cartridge)	PF-CAP-C-00155
pH-ORP sensor, 3 meters cable, bare wire	PF-CAP-C-00171
pH-ORP sensor, 7 meters cable, bare wire	PF-CAP-C-00172
pH-ORP sensor, 15 meters cable, bare wire	PF-CAP-C-00162

EHAN: ANNULAR ORP SENSOR,
ORP potential and temperature

- **Combination sensor:** ORP & Temperature
- **Measuring ranges:** ORP: - 1000 to + 1000 mV ; T ° C: 0.00 to + 50.00 ° C
- **Interchangeable Cartridge with "PLASTOGEL®"**
- **Digital communication RS-485 Modbus / SDI-12**

Digital Technology

The electrolyte "PLASTOGEL®" of DIGISENS Ponsel sensor communicates directly with the external environment without interposition of capillary or porous. There is therefore no risk of clogging or reference defusing. Temperature: Measures via NTC.

Applications

Treatment of urban waste water (entrance, aeration tank, exit), industrial sewage treatment (optimization process of nitrifying / denitrifying), deodorization channels.

Technical specifications	
Measures ORP	
Measuring principle ORP	combination electrode (ORP / reference): Platinum Ring Reference Ag / AgCl. gelled electrolyte (KCl)
Measurement range	-1000.0 to + 1000.0 mV
Resolution	± 0.1 mV
Accuracy	± 10mV
Response time	90 s
Temperature Measurement	
Measuring principle T°C	NTC
Operating Temperature	0.00 ° C to 50.00 ° C
Resolution	0,01 °C
Storage temperature	0°C to + 60°C
Protection	IP 68
Interface signal	RS-485 Modbus / SDI-12
Refresh rate measurement	Maximum <1 second
Sensor supply	5-12 volts
Consumption	Standby : 25µA, RS485 Average (1 measure / second) : 20 mA, Pulse current : 500 mA, Meating : 100 mS
Sensor	
Dimension of equipped sensor	Upper part: 27 mm diameter; Length 103 mm Cartridge Length: 173 mm; Equipped sensor Length: 262 mm without gland
Weight	350 g (cable + sensor)
Materials in contact with the environment	PVC, POM-C, platinum, Polyurethane
Maximum pressure	5 bars
Cable / connector	9 armored connectors, polyurethane sheath, bare wires or sealed metal Fischer connector

References

EHAN sensor Fisher connector 3m cable without cartridge	PF-CAP-C-00268
EHAN sensor Fisher connector 7m cable without cartridge	PF-CAP-C-00269
EHAN sensor Fisher connector 15m cable without cartridge	PF-CAP-C-00270
EHAN sensor bare wires 3m cable without cartridge	PF-CAP-C-00271
EHAN sensor bare wires 7m cable without cartridge	PF-CAP-C-00272
EHAN sensor bare wires 15m cable without cartridge	PF-CAP-C-00273
Annular digital sensor cartridge ORP	PF-CAP-C-00263

Rental available

PONSEL BY AQUALABO

C4E: CONDUCTIVITY/SALINITY,
Digital technology for optimized measures

- **Mounting at 4 electrodes:** The electrode works with a technology in 4 electrodes: an alternating current of constant-voltage is established between a primary's pair of electrodes in graphite. The secondary's electrodes in platinum allow of regulate the voltage imposed to primary's electrodes to reflect of the fouling. The voltage measured between the primary's electrodes is in function of the resistance of place and so, of the conductivity.
- **Digital Technology:** The "smart" Digital C4E sensor stores calibration and history data within the sensor. This allows you a "plug and play" system without re-calibration.

Thanks to the Universal Modbus RS485 protocol, the PONSEL Digital C4E can be connected to all devices commonly used (Datalogger, Controller, Automat, Remote System…).

FOLLOWING NORM ISO 7888

Applications

- Urban wastewater treatment
- Industrial effluent treatment
- Surface water monitoring
- Sea water
- Drinking water

Technical specifications measures	
Measure principle	Conductivity sensor with 4 electrodes (2 graphic, 2 platinum)
Measure ranges conductivity	• 0-200,0 µS/cm • 0 –2000 µS/cm • 0,00 –20,00 mS/cm • 0,0 –200,0 mS/cm • AUTOMATIC RANGE
Resolution	0,01 to 1 according the range Beyong 100 mS/cm use an appropriate buffer solution
Accuracy	± 1 % of the full range
Measure range salinity	5-60 g/Kg
Measure range TDS -KCl	0-133 000 ppm
Response time	< 5 s
Working temperature	0°C to + 50°C
Temperature compensation	NTC
Stocking temperature	-10°C to + 60°C
Signal interface	Modbus RS-485 and SDI-12
Maximum refreshing time	Max < 1 s
Sensor power-supply	5 to 12 volts
Electric consumption	Standby : 25 µA Average RS485 (1 measure/second) : 6,3 mA Average SDI12 (1 measure/second) : 9,2 mA Current pulse : 500 mA
Technical specifications sensor	
Dimensions	Diameter : 27 mm ; Length : 177 mm
Weight	300 g (sensor + cable 3 meters)
Material	PVC, DELRIN, stainless steel
Maximum pressure	5 bars
Connection	9 armoured connectors, polyurethane jacket, bare-wires or waterproof Fisher connector
Degree of protection	IP68

ADVANTAGES

- 4 electrodes (2 graphic, 2 platinum)
- Range 0 to 200 mS/cm and automatic range
- Digital sensor Modbus RS-485 / SDI-12
- Robust and Watertight

References

C4E SENSOR WITH FISCHER CONNECTOR Conductivity/T Digital Probe - 3 m cable	PF-CAP-C-00149
C4E SENSOR WITH FISCHER CONNECTOR Conductivity/T Digital Probe - 7 m cable	PF-CAP-C-00150
C4E SENSOR WITH FISCHER CONNECTOR Conductivity/T Digital Probe - 15 m cable	PF-CAP-C-00167
C4E SENSOR, 3 meters cable, bare wire	PF-CAP-C-00169
C4E SENSOR, 7 meters cable, bare wire	PF-CAP-C-00170
C4E SENSOR, 15 meters cable, bare wire	PF-CAP-C-00156

PONSEL BY AQUALABO

CTZN : INDUCTIVE CONDUCTIVITY,

Inductive conductivity no sensitive to the fouling

- **Measured parameters:** Conductivity compensated in temperature (mS/cm), Conductivity non-compensated in temperature (mS/cm), Salinity (g/Kg), Temperature (°C)
- **Inductive method:** A ring-type coil is excited at fixed intervals and the response is retrieved on a second coil, which is linked to the excited coil. The connectivity between the coils (determined by the degree of conductivity) takes place via the conducting solution. Economic and successful technology that requiring not enough maintenance and not consumable.
- **Digital Technology:** The "smart" Digital CTZN sensor stores calibration and history data within the sensor. This allows you a "plug and play" system without re-calibration. Thanks to the Universal Modbus RS485 protocol, the PONSEL Digital CTZN

Applications

Urban wastewater treatment, Industrial effluent treatment, Surface water monitoring, Sea water, Fish farming

ADVANTAGES

- Sensor regulated in temperature
- Ranges 0 to 100 mS/cm
- Numerical communication Modbus RS-485 and SDI12
- Compact, robust and watertight

Technical specifications measures				
Measure principle	Inductive conductivity sensor regulated in temperature			
Measure ranges conductivity	0,0 –100,0 mS/cm			
Resolution	0,1			
Measure ranges salinity	5-60 g/Kg			
Working temperature	0 to 50 °C			
Temperature compensation	With NTC			
Accuracy T°C	± 0.5 °C			
Response time	90% of the value in less than 30 seconds			
Stocking temperature	-10°C to + 60°C			
Signal interface	Modbus RS-485 and SDI-12			
Sensor power-supply	5 to 28 volts, max 30 V			
Electric consumption	Automatic Standby < 50 µA , Heating time 100 mS Average Modbus RS485			
	1 measure/s :	Vin 5V	Vin 12 V	Vin 24 V
	1 measure/s	31 mA	15,5 mA	11,5 mA
	Max current pulse 700 mA during 2 mS, 350 mA during 150 mS			
Technical specifications sensor				
Dimensions	Diameter max. 62,4 mm, Length : 196 mm			
Weight	700 g			
Material	EPDM, PVC, Stainless steel			
Maximum pressure	5 bars			
Connection	9 armoured connectors, polyurethane jacket, bare-wires or waterproof Fisher connector			
Degree of protection	IP68			

References

CTZN SENSOR, 3 METERS CABLE, BARE WIRE - STAINLESS STEEL IN PIPE INSTALLATION	PF-CAP-C-00265
CTZN SENSOR, 3 METERS CABLE, BARE WIRE - VERSION IMMERSION/PVC IN PIPE INSTALLATION	PF-CAP-C-00259
CTZN SENSOR, 7 METERS CABLE, BARE WIRE - STAINLESS STEEL IN PIPE INSTALLATION	PF-CAP-C-00266
CTZN SENSOR,7 METERS CABLE, BARE WIRE - VERSION IMMERSION/PVC IN PIPE INSTALLATION	PF-CAP-C-00261
CTZN SENSOR, 15 METERS CABLE, BARE WIRE - STAINLESS STEEL IN PIPE INSTALLATION	PF-CAP-C-00256
CTZN SENSOR, 15 METERS CABLE, BARE WIRE - VERSION IMMERSION/PVC IN PIPE INSTALLATION	PF-CAP-C-00253

Rental available

PONSEL BY AQUALABO

OPTOD: OPTICAL DISSOLVED OXYGEN,
Optical technology for optimized measurements

Applications
- Urban wastewater treatment
- Industrial effluent treatment
- Surface water monitoring
- Drinking water

ADVANTAGES
- Optical Technology without calibration
- Digital Technology (Modbus RS-485 / SDI-12)
- No drift, Reduced maintenance
- Body in Stainless steel (316 L) or Titanium

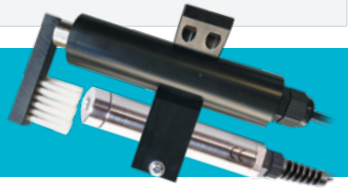
Optical technology
The OPTOD (Optical Dissolved Oxygen technology) is based on luminescent optical technology. The OPTOD sensor is approved by the ASTM International Method D888-05 and Norm ISO 17289.
Without calibration requirements and thanks to an ultra low power technology, the OPTOD sensor meets the demands of field works and short or long term campaigns.
Without oxygen consumption, this technology allows you an accurate measure in all situation and especially in very low oxygen concentrations

Mecanic
Compact, strong and light, the sensor allows a portable or in fixed/permanent use.

Body in Stainless steel 316 L (passivation treatment) or in Titanium for applications in corrosive environment.

Technical specifications measures	
Measure principle	Optical measure by luminescence
Measure ranges	0,00 to 20,00 mg/L • 0,00 to 20,00 ppm • 0-200%
Resolution	0,01
Accuracy	+/- 0,1mg/L • +/- 0,1 ppm • +/- 1 %
Response time	90% of the value in less than 60 seconds
Frequency of recommended measure	>5 s
Water move	No necessary move
Temperature compensation	Via NTC
Stocking temperature	-10°C to + 60°C
Signal interface	Modbus RS-485 and SDI-12
Sensor power-supply	5 to 12 volts
Consumption	Standby 25 µA Average RS485 (1 measure/ second) : 4,4 mA Average SDI12 (1 measure/ second) : 7,3 mA Current pulse : 100 mA
Technical specifications sensor	
Dimensions	Diameter : 25 mm ; length : 146 mm
Weight	Stainless steel version 450g (sensor + cable 3 m) Titanium version 300 g (sensor + cable 3 m)
Material	Stainless steel 316L, New : body in Titanium
Maximum pressure	5 bars
Connection	9 armoured connectors, polyurethane jacket, bare wires or waterproof Fisher connector
Protection	IP68

Accessory
Hydroclean : Anti-fouling system for numerical sensor Optod



References

Optod digital sensor Odeon Fisher plug 3m	PF-CAP-C-00140
Optod digital sensor Odeon Fisher plug 7m	PF-CAP-C-00141
Optod digital sensor Odeon Fisher plug 15m	PF-CAP-C-00163
Optod digital sensor 3m bare wires	PF-CAP-C-00160
Optod digital sensor 7m bare wires	PF-CAP-C-00168
Optod digital sensor 15m bare wires	PF-CAP-C-00164
Optod digital sensor Odeon titanium Fisher plug 3m	PF-CAP-C-00240
Optod digital sensor Odeon titanium Fisher plug 7m	PF-CAP-C-00241
Optod digital sensor Odeon titanium Fisher plug 15m	PF-CAP-C-00242
Optod titanium digital sensor 3m bare wires	PF-CAP-C-00243
Optod titanium digital sensor 7m bare wires	PF-CAP-C-00244
Optod titanium digital sensor 15m bare wires	PF-CAP-C-00245

Rental available

OPTOD PLASTIC: OPTICAL DISSOLVED OXYGEN,

Digital technology for optimized measures in Fish Farming application

Applications

- Sea water monitoring
- Fish Farming: closed containment, offshore
- Aquaculture Industry

Aqualabo has customers in the aquaculture field for long time as we already produced, 20 years ago, handheld DO meters in our range. However, our presence in this market is more intense since 2012 with more requests from France, Scandinavia, Feroe Islands and Chile.
The reason is that optical DO sensor was becoming popular but prices were still too high for fish farmers, Aqualabo came to this market with more competitive solution.
Other reason is that fish farmers and systems integrators were looking for a sensor that can be integrated directly to PLC to control aeration system. Our full Modbus open protocol was a good way to reduce cost and make direct integration to PLC.
Based on our experience and discussions with our customers and to better support you, we have decided to propose a new sensor for your applications in Aquaculture and Fish Farming at a suitable cost.

Optical technology

The OPTOD (Optical Dissolved Oxygen technology) is based on luminescent optical technology. The OPTOD sensor is approved by the ASTM International Method D888-05 & ISO 17289:2014.
Without calibration requirements and thanks to an ultra low power technology, the OPTOD sensor meets the demands of field works and short- or long-term campaigns.
Without oxygen consumption, this technology allows you an accurate measure in all situation and especially in very low oxygen concentrations.

Digital Technology

The "smart" OPTOD Plastic sensor stores calibration and history data within the sensor. This allows you a "plug and play" system without re-calibration.
Thanks to the Universal Modbus RS485 protocol, the PONSEL OPTOD Plastic can be connected to all devices commonly used (Datalogger, Controller, Automat, Remote System…).

Mechanic

Compact, strong and light, the sensor allows a portable or in fixed/permanent use • Body in POM C and PVC with 2 versions of strainers to adapt according to the application • Internal reinforcement for more robustness • Option Anti-fouling for maintenance optimisation.

ADVANTAGES

- Optical Technology
- Digital Technology (Modbus RS-485)
- No drift, Reduced maintenance
- Body in POM C & PVC

Technical specifications	
Measures	
Measure principle	Optical measure by luminescence
Measure ranges	0,00 to 20,00 mg/L • 0,00 to 20,00 ppm • 0-200%
Resolution	0,01
Accuracy	+/- 0,1mg/L, +/- 0,1 ppm, +/- 1 % (+/-5% if EMI Perturbations are more than 10V/m) • The sensor must be fully immerged to ensure maximum accuracy
Limit of detection	0.7 %
Limit of quantification	2.2 %
Repeatability (100% Sat)	0.2 %
Linearity	>0.99
Response time	0-> 100 % ; T90< 40s • 100 -> 0% ; T90< 65 s
Frequency of recommended measure	>5s
Temperature compensation	Via NTC
Temperature	0.00-50.00 °C • Accuracy: +/- 0.5 °C
Stocking temperature	- 10°C to + 60°C
Temperature range	0°C to 50°C
Temperature accuracy	+ /- 0,5°C
Communication Power supply	
Signal interface	Modbus [1] RS-485 or SDI-12 [2,3] 1,2. The sensor responds in Modbus / SDI12 including during Standby • 3. The use and connexion of SDI12 bus may increase the standby power • Consumption* up to 100uA depending the level of the line (high or low). The consumption is not increased if the SDI12 line is disconnected or released to 0V (Modbus RTU only)
Sensor power-supply (RS485 and SDI12)	5 V [1,2] to 12 V [3,4] DC (warm-up time 100 ms) 1. Absolute minimum 4.5V with 1m of cable, boot and precision not guaranteed under 5V • 2. Minimum voltage subjected to cable length-related losses • 3. 13V Absolute maximum with a more than 2 mA continuous over consumption • 4. Small overconsumption between 12V and 12.5V
Consumption	Standby 25 µA • Average RS485 (1 meas/s): 3.2 mA • Average SDI12 (1 meas/s): 6 mA • Current pulse: 85 mA (3 mS) *For more details, refer to the user manual*
Sensor	
Dimensions	Standard version: Diameter: 27mm; length: 143mm • More protective strainer: Diameter: 27 mm; Length: 166 mm
Weight	300 g (sensor + cable 3 m)
Material	Black POM C, PVC
Maximum pressure	5 bars
Connection	9 armoured connectors, polyurethane jacket, bare-wires
Ingress Protection rating	IP68

Rental available

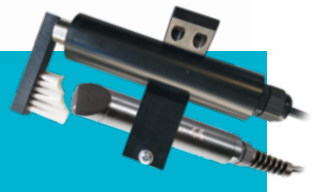
PONSEL BY AQUALABO

NTU: NEPHELOMETRIC TURBIDITY,
Optical technology for optimized measures

Optical technology: The measure principle is based on IR nephelometry ISO 7027 / 850 nm. The sensor can be calibrated with a formazine standard solution. The NTU sensor integrates a low-cost optical technology, with a very few maintenance and no consumables.

Applications

- Urban wastewater treatment (inlet/ outlet controls)
- Sanitation network
- Industrial effluent treatment
- Surface water monitoring
- Drinking water



Accessory

Hydroclean : Anti-fouling system for numerical sensor NTU

Technical specifications measures	
Measure principle	Diffusion IR at 90°
Measure ranges	5 - 50 NTU ; 5 – 200 NTU ; 5 – 1000 NTU ; 5 – 4000 NTU ; AUTOMATIC RANGE 0 to 4500 mg/L Calibration: Range 0-500 mg/L according to NF EN 872 Range >500 mg/L according to NF T 90 105 2
Resolution	0,01 to 1 NTU - mg/L
Accuracy	< 5% of the reading
Working temperature	0°C to + 50°C
Measure of temperature	Via NTC
Stocking temperature	-10°C to + 60°C
Signal interface	Modbus RS-485 and SDI-12
Maximum refreshing time	< 1 second
Sensor power-supply	5 to 12 volts
Electric consumption	Standby: 40 µA / Average RS485 (1 measure/second): 820 µA / Average SDI12 (1 measure/second): 4,2 mA / Current pulse: 500 mA
Consumption	• Standby : 40 µA • RS485 average (1 measure / sec) : 820 µA • SDI12 average (1 measure / sec) : 4,2 mA • Heating time : 100 mS • Current pulse : 500 mA
Technical specifications sensor	
Dimensions	Diameter : 27 mm; length : 170 mm
Weight	300 g (sensor + cable 3 meters)
Material	PVC, DELRIN, Quartz, PMMA, Polyamide
Maximum pressure	5 bars
Connection	9 armoured connectors, polyurethane jacket, bare-wires or waterproof Fisher connector
Degree of protection	IP68

ADVANTAGES

- IR optical sensor with optical fibre
- Range : 0 to 4000 NTU or 0-4500 mg/L
- Rugged and waterproof (IP68)
- Ultra low-power consumption
- Digital output Modbus RS-485 / SDI-12
- Nephelometry measurement

References

NTU sensor, 3 meters cable, bare wire	PF-CAP-C-00173
NTU sensor, 7 meters cable, bare wire	PF-CAP-C-00174
NTU sensor, 15 meters cable, bare wire	PF-CAP-C-00166
Turbidity/T Digital Probe Fischer Connector - 3 m cable	PF-CAP-C-00146
Turbidity/T Digital Probe Fischer Connector - 7 m cable	PF-CAP-C-00147
Turbidity/T Digital Probe Fischer Connector - 15 m cable	PF-CAP-C-00165

HYDROCLEAN BRUSH CLEANING SYSTEM

HydroClean_P autonomous version for sensor NTU on 7 m. Box of autonomous piloting for mechanical cleaning of the sensor of Turbidity (NTU) on 7 m of cable.	PF-ACC-C-00421
HydroClean_P autonomous version for sensor NTU on 15 m	PF-ACC-C-00423
HydroClean_PEx to be integrated for NTU sensor on 7 m Controller box to be integrated for mechanical cleaning of the turbidity sensor (NTU) on 7 m of cable.	PF-ACC-C-00425
HydroClean_PEx to be integrated for NTU sensor on 15 m	PF-ACC-C-00427
Wall Mount System for HydroClean_P	PF-ACC-C-00435

PONSEL BY AQUALABO

MES5 / VB5,

Measurement of SS, turbidity and sludge blanket

Applications

- Treatment of urban waste water (Input / Network (SS, Turbidity) Aeration Tank (MES), Clarifier (Sludge Blanket), Outlet (Turbidity)).
- Industrial effluent treatment (Aeration Tank (SS), Decanter (Sludge Blanket), output (Turbidity))
- Sludge treatment channels.
- Monitoring of dredging sites ...

Optical Technology

The measuring principle is based on the attenuation of the IR signal through an optical slot. The sensor delivers measurement in Sludge concentration (g / l), Turbidity (FAU) and Sludge blanket in % of IR transmission. For a best accuracy, the optical measurements are temperature controlled. For a measure of Suspended Solids, the sensor is calibrated directly on the material to be measured (sludge sample). In Turbidity mode, the sensor provides measurements over a range of 0-4000 FAU (Formazin Attenuation Unit) and it is calibrated with Formazin solutions. Temperature: optical measurement and control via CTN.

ADVANTAGES

- Optical sensor based on IR absorptiometry
- Measuring ranges: SS: 0-50 g / L, Sludge Blanket 0-100% Turbidity 0-4000 FAU
- Digital communication RS-485 Modbus / SDI-12
- Robust sensor

Handheld device
Odeon

Technical specifications	
Measures Sludge concentration, Turbidity, Sludge blanket detection	
SS Measuring principle	Optical IR (870 nm) based on absorptiometry
Measuring range	SS: 0-50 g / L Turbidity: 0-4000 FAU, Sludge blanket: 0-100% MES
Resolution	SS : 0.01 g / L Turbidity: 0.01 to 1 FAU, sludge blanket: 0.01 to 0.1% sludge blanket
Accuracy	SS : <10%; Turbidity: ± 5% (range 200-4000 FAU); Sludge blanket: ± 2%
Response time	< 35 seconds
Temperature Measurement	
Measuring principle T°C	NTC
Operating temperature	-5.00 °C to + 60,00°C
Resolution	0,01 °C
Accuracy	± 0.5 °C
Storage temperature	-10°C to + 60°C
Protection	IP 68
Interface signal	RS-485 Modbus or SDI-12
Refresh speed measurement	Maximum < 1 second
Sensor supply	5-28 volts
Consumption	Standby: 25 µA (5V), RS485 Average (1 measure / second): 4.5 mA (power supply 5V), SDI-12 Average (1 measure / second): 4.5 mA (power supply 5V) Pulse current 100 mA during 30 mS, Warm up time: 100 mS
Sensor	
Weight	750 g (sensor)
Materials in contact with the environment	DELRIN
Maximum pressure	5 bars
Cable / connector	9 armored connectors, polyurethane sheath, bare wires or sealed metal Fischer connector

References

Digital sensor MES5 Odeon Fisher plug 3m	PF-CAP-C-00276
Digital sensor MES5 Odeon Fisher plug 7m	PF-CAP-C-00277
Digital sensor MES5 Odeon Fisher plug 15m	PF-CAP-C-00278
Digital sensor VB5 Odeon Fisher plug 3m	PF-CAP-C-00283
Digital sensor VB5 Odeon Fisher plug 7m	PF-CAP-C-00284
Digital sensor VB5 Odeon Fisher plug 15m	PF-CAP-C-00285
Digital sensor MES5 bare wires 3m	PF-CAP-C-00279
Digital sensor MES5 bare wires 7m	PF-CAP-C-00280
Digital sensor MES5 bare wires 15m	PF-CAP-C-00281
Digital sensor VB5 bare wires 3m	PF-CAP-C-00286
Digital sensor VB5 bare wires 7m	PF-CAP-C-00287
Digital sensor VB5 bare wires 15m	PF-CAP-C-00288

Rental available

PONSEL
BY AQUALABO

LowTuS, NEW

On-line Low Turbidity digital sensor for drinking water application applications

ADVANTAGES

- 90-degree light-scattering Nephelometric method – ISO 7027.
- Ranges 0-10 NTU; 0-100 NTU
- Modbus RS-485 digital communication
- Self-cleaning of optical part
- Operation checking with Solid Tare

Applications

Raw water for drinking / water production / Drinking water process control / Final Water Monitoring / Filtered Water

Measurement principle

The measurement principle is based on the measurement of Infra-Red light diffusion at 90° (ISO 7027) and allows continuous monitoring of the Turbidity measurement over low measurement ranges.
The new Low Turbidity sensor incorporates a new mechanical system for automatic cleaning of the measuring cell. This system prevents the build-up of contamination in the measuring field and on optical scattering and IR radiation cells.
An automatic de-bubbling system prevents bubbles from sticking to the optical windows so as not to introduce measurement errors.
Calibration can be performed using a turbidity standard (Formazine) and a quick functional check using the calibration reference cell (Solid Tare) supplied with each sensor (Premium version), making the calibration process easier and reproducible.

Digital Communication / Built-in Transmitter

The New Low Turbidity sensor connects to any type of recorder, transmitter, remote management system or PLC using a Modbus RS-485 input. As a result of sensor indexing, more than 200 sensors can be connected to a recorder.
Interference-proofing: pre-amplification built into the sensor and digital signal processing.
All calibration, history, user, and measurement data are processed directly in the New Low Turbidity Sensor and transmitted by a Modbus RS-485.

Options

measurement flow cell with cleaning system

Cleaning system
Debubbling : rotating wipper to push bubbles and deposits out of the optical windows.

Dry check tool
Manual use two positions for 2 steps :
- *Dark level*
- *Low scattering level*

Technical Characteristics	
Measurements	
Measurement principle	Diffusion IR at 90° - ISO 7027
Measuring Range	0-10; 0-100 NTU & Automatic Range
Resolution	0,0001 NTU for [0,0002 to 9,9999 NTU] • 0,001 NTU for [10,000 to 100,00 NTU]
Accuracy	Low range: +/-2% of reading or 0,1 NTU* High range: +/-5% or 0,3 NTU* *Highest value
Temperature	NTC
Temperature Accuracy	+/- 0.5°C
Type of detector	Si photodiode
Light sources	LED IR 850 nm
Measurement frequency min	0.75s (measure only), 6s (measure + cleaning)
Ingress Protection rating	IP65
Maximum pressure	3.5 bar
Water Flow	100 ml/min to 1500 ml/min
Storage temperature	0-50°C
Weight	1800 – 2000g depending on the version
Equipment	Body: Polycarbonate, POM-C, PE, polyamide • Optical windows: Fused silica • Cable: Bare wire with polyurethane sheath • Seals: Nitrile • Wiper unit: Silicon, Stainless steel
Wetted materials	Measurement cell: POM-C, Fused silica, Nitrile Wiper unit: Silicon, Stainless steel
Cable	9 shielded conductors in 3, 7 and 15m. Other lengths on request
Signal interface	Modbus[1] RS-485 1. The sensor responds in Modbus including during Standby

	Measure only	**Measure + Cleaning**
Sensor Power Supply	5[1] - 26[2] VDC	6[1] - 26[2] VDC
	1. Minimum voltage subject to cable length-related losses 2. 28.0 V absolute maximum	
Typical consumption at 5V / 6V	Automatic standby: less than 3.7 mA* (18.5 mW / 22.2 mW) Maximum peak current: 400 mA (10 ms)	
Maximum current during measurement	110 mA (550 mW)	300 mA (1800 mW)
Average current during measurement	25 mA (125 mW)	165 mA (990 mW
Average current (1 measurement / 10s) *	10 mA (50 mW)	100 mA (600 mW)
Energy for 1 measurement	69 µWh	1375 µWh
Typical consumption at 12 V	Automatic standby: less than 3.8 mA* (45.6 mW) Maximum peak current: 250 mA (10 ms)	
Maximum current during measurement	62 mA (744 mW)	150 mA (1800 mW)
Average current during measurement	27 mA (324 mW)	75 mA (900 mW
Average current (1 measurement / 10s) *	8.5 mA (102 mW)	90 mA (1080 mW)
Energy for 1 measurement	180 µWh	1250 µWh
Typical consumption at 24 V	Automatic standby: less than 4 mA* (96 mW) Maximum peak current: 150 mA (10 ms)	
Maximum current during measurement	60 mA (1440 mW)	100 mA (2400 mW)
Average current during measurement	26 mA (624 mW)	65 mA (1560 mW)
Average current (1 measurement / 10s) *	8.5 mA (204 mW)	45 mA (1080 mW)
Energy for 1 measurement	347 µWh	2167 µWh
EMC compliance	NF EN 61326-1: 2021-06 1,2 RS-485 Modbus RTU 1. The sensor is qualified for standard use with a dedicated cable including power supply and communication lines specific to the sensor network. 2 . When connected to a DC power supply network separated from the RS485 communication lines; additional shielding must be used on the system to protect the sensors from induced surges (above 30 meter cable length).	
Warranty	2years	

*When low power mode is activated in "User Configuration Modbus Registers" (subject to evolution with software updates)

- Never exceed a voltage of 10VDC (absolute maximum rating) on communication lines RS485, A or B, under penalty of irreversible destruction of the transceiver component RS 485.
- SDI-12 (not available): respect the voltage value described in the associated standard (nominal: 5 VDC)
- Always connect ground + shield first.

References

LOWTUS STANDARD VERSION 7M CABLE: DRINKING WATER TURBIDITY SENSOR	PF-CAP-C-00439
LOWTUS PREMIUM VERSION 7M CABLE: TURBIDITY SENSOR DRINKING WATER	PF-CAP-C-00441

STACSENSE, NEW

UV Optical Technology for optimal measurements

Applications

- Urban wastewater treatment: detecting organic load variations during input / treatment process / output.
- Treatment of industrial effluents
- Surface water monitoring
- Fish farming, aquaculture (freshwater)
- Drinking water: monitoring Organic matter in raw water, oxidation process, coagulation, activated carbon filtration.

The Spectral Absorption Coefficient (SAC) at 254 nm helps determine the Organic Content of a water sample but also the COD, TOC and BOD parameters by applying the appropriate correlation coefficients.

ADVANTAGES

- UV 254 spectral absorption without any reagents or consumables.
- Multi-parameter measurement: SAC254, CODeq, TOCeq & BODeq, Turbidity eq
- Modbus RS-485 digital communication.
- Automatic Turbidity compensation.

Measurement principle

The StacSense probe uses UV absorption at 254 nm to measure organic compounds dissolved in water. This absorbance is correlated with the concentration of TOC, COD and BOD to provide a high-performance probe requiring no consumables.
A reference measurement at 530 nm is used to compensate for the presence of particles in the sample that also absorb UV light and to establish the Turbidity parameter.
The use of a state-of-the-art high-performance UV LED, combined with rigorous ignition management, offers an optimal variance of the signal.

Digital Communication / Built-in Transmitter

The StacSense sensor connects to any type of recorder, transmitter, remote management system or PLC using a Modbus RS-485 input. As a result of sensor indexing, more than 200 sensors can be connected to a recorder.
Interference-proofing: pre-amplification built into the sensor and digital signal processing.
All calibration, history, user and measurement data are processed directly in the StacSense Probe and transmitted by a Modbus RS-485 or SDI-12 link.

Technical Characteristics	
Measurements	
Measurement principle	UV 254 nm absorption
Compensation	Turbidity at 530 nm
Wave lengths	Internal temperature
Type of detector	254 nm (turbidity correction at 530 nm)
Light sources	Silicon Photodiode
Optical paths	LED UV 254 +/- 5nm and 530 +/- 5 nm
Measurement frequency	2 and 50 mm
Ingress Protection rating	IP68
Max. immersion depth	50 meters
Maximum pressure	5 bars
Operating temperature	0-40°C
Storage temperature	-10°C to +50°C
PH range	pH2 to.pH12
Dimensions (D x L) (mm)	48x371 or 48x419 (see overall dimensions diagram)
Weight	1600 - 1800g depending on the optical path (cable not included)
Equipment	Body: Stainless steel 316 (1.4401) • Optical windows: Quartz (Corning 7980) • Cable: Bare wire with polyurethane sheath • Seals: Fluoroelastomer (FPM/FKM)

Caractéristiques techniques	
Cable	9 shielded conductors in 3, 7 and 15m. Other lengths on request
Signal interface	Modbus[1] RTU (RS-485) / SDI12[2,3] (TTL) 1 Sensor mute in Modbus for up to 2s between the measurement request and the possibility to read the measurements or status 2 Using SDI12, measurement result frame after up to 2s instead of the 850ms standard delay [1,2] The sensor responds in Modbus / SDI12 including when on Standby 3 The use and connexion of SDI12 bus may increase the standby power consumption* up to 40uA depending the level of the line (high or low). The consumption is not increased if the SDI12 line is disconnected or released to 0V (Modbus RTU only).
Sensor power supply	5.4 V [1,2] at 26 V [3] DC 1 Absolute minimum 5.2 V with 1 m of cable 2 Minimum voltage subject to cable length-related losses 3 28.0 V absolute maximum
Typical consumption at 5.4 V	Automatic standby less than 10 µA (54 µW) Maximum peak current: 600 mA (2 ms) Maximum current during the measurement: 100 mA (540 mW) Average current during the measurement: 70 mA (378 mW) Average current (1 measurement / 2s): 35 mA (189 mW) Energy for 1 measurement (1.5 s): 158 µWh
Typical consumption at 12V	Automatic standby less than 10 µA (120 µW) Maximum peak current: 400 mA (1.5 ms) Maximum current during the measurement: 70 mA (840 mW) Average current during the measurement: 60 mA (720 mW) Average current (1 measurement / 2s): 30 mA (360 mW) Energy for 1 measurement (1.5 s): 300 µWh
Typical consumption at 24V	Automatic standby less than 10 µA (240 µW) Maximum peak current: 300 mA (1 ms) Maximum current during the measurement: 65 mA (1560 mW) Average current during the measurement: 50 mA (1200 mW) Average current (1 measurement / 2s): 25 mA (600 mW) Energy for 1 measurement (1.5 s): 500 µWh
EMC compliance	NF EN 61326-1: 2013-05 RS-485 Modbus RTU & SDI12 1 The sensor is qualified for standard use with a dedicated cable including power supply and communication lines specific to the sensor network. 2 When connected to a DC power supply network separated from the RS485 communication lines; additional shielding must be used on the system to protect the sensors from shock waves from an impact.
Warranty	2 years

Op.T	Parameters	Measurement range *	Units	Detection limit	Quantification limit	Accuracy **	Application
2 mm	SAC_{254}	0-750	Abs/m	1.7	5.0	1 or +/-3%	Wastewater
	CODeq	0-1300	mg/L	3.0	9.0	2 or +/-3%	
	BODeq	0-350	mg/L	1.0	3.0	1 or +/-3%	
	TOCeq	0-500	mg/L	1.5	4.0	1 or +/-3%	
	Turbidity eq	0-500	FAU	1.5	5.0	5 or +/-5%	
50 mm	SAC_{254}	0-30	Abs/m	0.20	0.3	0.1 or +/-3%	Drinking Water
	CODeq	0-50	mg/L	0.15	0.6	0.2 or +/-3%	
	BODeq	0-15	mg/L	0.10	0.2	0.1 or +/-3%	
	TOCeq	0-20	mg/L	0.10	0.2	0.1 or +/-3%	
	Turbidity eq	0-40	FAU	0.40	1.2	1.0 or +/-7%	

Performance levels obtained under laboratory conditions (controlled temperature and stirring, aqueous solutions of KHP)
* Optical path 2 and 50mm, Linearity: > 0.99 on the given range.
** Highest value

References

Multiparameter probe UV254 TOC/COD/BOD StacSense Op 2 mm 3m bare wire	PF-CAP-C-00370
Multiparameter probe UV254 TOC/COD/BOD StacSense Op 50 mm 3m bare wire	PF-CAP-C-00371

PONSEL BY AQUALABO

NEON, NEW
New portable field oximeter

For dissolved oxygen and temperature measurements in fish farms

ADVANTAGES

- Intuitive, simple and quick to use: immediate handling
- Robust, waterproof IP67 and lightweight.
- Digital optical sensor technology: reduced maintenance and measurement reliability
- Data recording and transfer via Wifi

Applications

Fish farming: RAS, pond, offshore cage / Aquaculture industry / Aquarium

NEON Digital Portable Device

Always ready for use, NEON combined with the OPTOD sensor allows reading of dissolved oxygen in %Sat and mg/L as well as temperature. NEON also offers a recording function (30 000 measuring points) in a punctual and automatic mode. Data transfer to the computer is easy thanks to the WiFi Transfer function (without additional cable).
Resistant to disturbances: pre-amplification integrated in the sensor and digital signal processing.

Optical Sensor Technology

The OPTOD dissolved oxygen sensor uses the ASTM International Method D888-05 approved optical luminescence measurement technology and ISO 17289.
This innovative method ensures reliable, accurate measurements and reduced maintenance.
Without consumables or maintenance, the OPTOD sensor allows immediate return on investment. Only the DOdisk is to be changed every two years.
The OPTOD sensor uses no oxygen and is suitable for all environments, including those with very low water circulation.

Technical specifications	
Measuring range	Oxygen: 0,00 to 20,00 mg/L ; 0,00 to 20,00 ppm ; 0-100% • Temperature: 0,00 – 50,00 °C • Atmospheric pressure: 450-800 mmHg (600-1065 hPa)
Resolution	Oxygen: 0,01 • Temperature: 0.01
Accuracy	Oxygen: +/- 0,1mg/L; +/- 0,1ppm; +/- 1 % • Temperature: +/- 0.5 °C
Oxygen calibration	On 1 or 2 points
Compensations	Barometric: Automatic • Salinity: Manual • Temperature via CTN: automatic
OPTOD digital sensor	Luminescence Optical Technology
Recording	30 000 points • Wifi transfert
Functions	Auto Off: 2, 5, 10, 15, 30 min • Light intensity: 5 min max • Contrast management Main measurement zoom function • Recording: On-site, interval recording (time interval) Indication of measurement stability • Measurement function that freezes with measurement stability condition
Power supply	3 battery 1,5V AA • 648 h (without recording) • 230 h (1 recording/minute)

Technical Data NEON housing	
Weight	880 g
Dimensions (H x l x e)	146 x 88 x 33
Protection class	IP 67
Operating temperature	-5 to 50 °C
Storage temperature	-10°C-60°C
Screen	LCD graphic • Backlight
Material	ABS
Sensor connexion	Cable gland type PG9 • Sensors on 3, 7 et 15 m

References

PORTABLE OXIMETER WITH OPTOD STAINLESS STEEL SENSOR ON 3 M	PF-POR-C-00151
PORTABLE OXIMETER WITH OPTOD TITANIUM SENSOR ON 3 M	PF-POR-C-00154

PONSEL BY AQUALABO

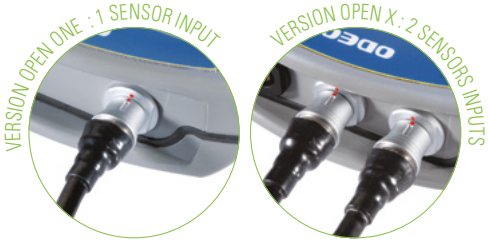
ODEON,
The polyvalent handheld device

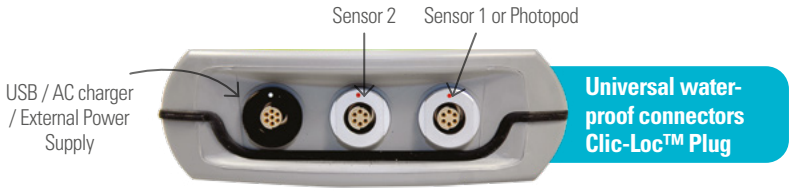
ODEON is the range of handheld numerical devices dedicated to water quality control on the field or in the laboratory.
Real combination of ruggedness and digital intelligence, ODEON offers reliability and flexibility never reached before.
With digital sensors DIGISENS, it can measure up to 7 physicochemical parameters.
With PHOTOPOD, it becomes a photometer able to analyze more than 40 additional parameters.
ODEON is available in version OPEN ONE with 1 sensor input or version OPEN X with 2 sensor inputs.

Getting immediate, intuitive use

- Large graphical display 4 'backlit
- Exceptional Memory Capacity: 8 MB, up to 100,000 measurement records
- Ergonomic device, shock resistant and waterproof: IP67
- Automatic recognition and self-diagnostic probes «Plug and Play»
- Optical Sensors (Oxygen, Turbidity) and electrochemical (pH, ORP, temperature, conductivity)
- Over 40 parameters with photometry using the Photopod

Technical specifications	
Memory	8 MB (up to more than 100,000 records)
Power supply	4 x 1.5V AA • Options: • Rechargeable Battery • Power. External 12 V
Battery life	145-190 hours depending on the configuration
Communication	USB
Housing	PC / ABS
Weight	400 g
Dimensions	196.5 x 121 x 46 mm
Protection	IP 67
Operating temperature, humidity	- 25 to + 50 ° C, 0-70%
Storage temperature, humidity	- 25 to + 65 ° C, 0-80%
Display	LCD 4 «240 x 320 pixel display with adjustable backlighting
Connectors	• 1 connector: ODEON OPEN ONE • 2 connectors: ODEON OPEN X





References

Odeon Open One	NC-POR-C-00103
Odeon Open X	NC-POR-C-00093

Rental available

Accessories and options

- Transfer and data analysis software
- Rechargeable Version with charger 220 V
- External Power Cable 12V
- Y cable for 2 digital sensors on one input
- Sensor coupling Accessories
- Reels up to 20m and 100 m
- Enhanced suitcase equipped with a 12V battery
- Cable length 3 m / 7 m / 15 m
  (other lengths available on request)
- 125 mL Standardized calibration solutions

Photometer PHOTOPOD

- Ultra compact and very lightweight
- 5 wavelengths with automatic selection
- Over 40 parameters available
- Fast and easy methods

Reference : Page 70

References

Accessories

KIT Rechargeable Battery ODEON: Cable Charger, 4 Batteries NiMH rechargeables	NC-ACC-C-00001
Blue carrying case ODEON (small version)	PF-ACC-C-00190
Black carrying case ODEON (big version)	PF-ACC-C-00201
Reinforced briefcase for Odeon including: I reinforced briefcase, 1 battery 12V/17A, 1 cable, 2 connections for Digital sensor	PF-ACC-C-00038
USB/PC Cable	PF-ACC-C-00186
Power Supply Cable External 12V	PF-ACC-C-00195
Y Cable for 2 SENSORS	PF-ACC-C-00200
PVC STRAINER (Stainless steel weight) DIGITAL SENSOR	PF-ACC-C-00357
ACCESSORY COUPLING 2 SENSORS	PF-ACC-C-00197
DIGITAL SENSOR until 20 m HAND CRANK CABLE REEL	PF-ACC-C-00198
DIGITAL SENSOR until 100 m HAND CRANK CABLE REEL	PF-ACC-C-00199
ODEON upgrade to Open Technology (For Classic Line)	PF-ACC-C-00191
Strainer with DODISK for OPTOD sensor	PF-CSO-C-00041
Titanium strainer with exchange dodisk for OPTOD sensor	PF-CSO-C-00045

Consumables

4 NiMH refillable batteries	PF-CSO-C-00032
125ml bottle of pH 4 buffer solution	1TP016
125ml bottle of pH 7 buffer solution	1TP060
125 ml bottle of pH 19 buffer solution	1TP012
125ml bottle of pepsin cleaning solution for EH and pH sensors	1SN004
Buffer solution for Redox meters : 240mV to 20°C, 125ml bottle	1SR001
Buffer solution for Redox meters : 470mV to 20°C, 125ml bottle	1SR004
20g bottle of sodium sulphite	1SS012
125 ml bottle of formazine, 4 000 NTU stock solution	1SF009
Conductimeter adjustment solution : KCl 122880 µs to 25°C, 125ml bottle	1SC013
Conductimeter adjustment solution : KCl 1 413µS to 25°C, 125ml bottle	174SCS19

Cables

Cable for 1 digital sensor bare wire / Odeon (adaptation for Odeon)	PF-ACC-C-00082
Cable for 1 digital sensor bare wire / Fischer connector	PF-ACC-C-00260

PONSEL BY AQUALABO

ACTEON 5000,
Digital transmitter multiparameters instrument

Intelligent transmitter for intelligent sensors: Dissolved oxygen / Turbidity / pH / T°C / ORP / Conductivity / Salinity / COD, TOC, BOD, SAC254

AVANTAGES

- Touch-sensitive screen
- Technology of digital communication
- 1 to 2 digital sensor connexion
- Wide graphic screen: display until 4 measures
- Analogic output Out 4-20 mA, programmable Relays (visible state main screen)
- Simple and fast intuitive Programming
- Wide range of digital sensors
- Modbus RS485 output
- Ethernet output

Application areas

Waste water treatment plant (aeration tank for control/regulation of Nitrification / Denitrification process, Drinking water (control raw water), Industrial waste water treatment (reject control, regulation), Survey of surface water, Fish farming…

NEW :
Available with
Stacsense and LowTuS

Software and features	
2 digital output	Choice of 2 programmable parameters according to connected sensor
2 relay	NO / NC customizable Instruction point : configuration of the working range (Hysteresis / direction) and time of activation Command of external cleaning system Alarm output, probe default
Atmospheric pressure sensor	For pressure Oxygen compensation

Technical specifications	
Display	Back-light graphic lcd touch-sensitive - Size: 95 x 54 mm
Analogic output	0/4.00 – 20.00 mA with galvanic insulation • Charge max 250 Ω
Relay output	6 A /250 V
Conditions of functioning	Temperature of functioning: - 15 °C à + 50 °C • Storage Temperature / transport: - 15 °C to + 50 °C
Power supply Electric protections	100-240 V AC / DC 50-60 Hz • Option 9-28 V DC / DC • Electric protection : compliance with EN61010-1 :2010
Digital outputs	Modbus RTU • Ethernet TCP IP
Dimensions (L x H x P)	213 x 185 x 84 mm
Protection	IP65

References

TRANSMITTER MULTIPARAMETERS DIGITAL TECHNOLOGY ACTEON 230V	PF-FIX-C-00085
TRANSMITTER MULTIPARAMETERS DIGITAL TECHNOLOGY ACTEON 12-24V	PF-FIX-C-00088

References mounting accessories

Nozzles for digital sensors	
Nozzle for OPTOD sensor junction (diam 50 included)	PF-ACC-C-00221
Nozzle for PH-ORP sensor junction (diam 50 included)	PF-ACC-C-00222
Nozzle for C4E or ntu sensor junction (diam 50 included)	PF-ACC-C-00223
Join union 3 parts to be stuck (d50) for CTZN sensor	ME-PCS-C-00012
Long perch for numerical sensors	
90° Elbow long perch for OPTOD sensor (2955 mm, elbowed shutter)	PF-ACC-C-00230
90° Elbow long perch for PH-ORP sensor (2955 mm, elbowed shutter)	PF-ACC-C-00261
90° Elbow long perch for NTU and C4E sensors (2955 mm, elbowed shutter)	PF-ACC-C-00262
90° Elbow long perch for CTZN sensor (2955 mm, elbowed shutter)	PF-ACC-C-00109
Straight long perch for OPTOD sensor (2745 mm, elbowed shutter)	PF-ACC-C-00263
Straight long perch for PH-ORP sensor (2745 mm, elbowed shutter)	PF-ACC-C-00264
Straight long perch for NTU and C4E sensors (2745 mm, elbowed shutter)	PF-ACC-C-00265
Straight long perch for CTZN sensor (2745 mm, elbowed shutter)	PF-ACC-C-00115
Short perch for numerical sensors	
90° Elbow short perch for OPTOD sensor (1495 mm, elbowed shutter)	PF-ACC-C-00266
90° Elbow short perch for PH-ORP sensor (1495 mm, elbowed shutter)	PF-ACC-C-00267
90° Elbow short perch for NTU and C4E sensors (1495 mm, elbowed shutter)	PF-ACC-C-00268
90° Elbow short perch for OPTOD sensor (1550 mm, ring shutter)	PF-ACC-C-00269
90° Elbow short perch for PH-ORP sensor (1550 mm, ring shutter)	PF-ACC-C-00270
90° Elbow short perch for NTU and C4E sensors (1550 mm, ring shutter)	PF-ACC-C-00271
Perch fixation kit	
Perch fixation kit for numerical sensor (on low wall)	NC-ACC-C-00009
Perch fixation kit for numerical sensor (on life line)	NC-ACC-C-00010
Perch fixation kit for numerical sensor (on vertical axle)	NC-ACC-C-00011
Short perch fixation kit for numerical sensor (on low wall)	NC-ACC-C-00012
Short perch fixation kit for numerical sensor (on life line)	NC-ACC-C-00013
Short perch fixation kit for numerical sensor (on vertical axle)	NC-ACC-C-00014
Vertical axle for numerical sensor perch (to be fixed on soil)	PF-ACC-C-00272
Inpipe installation accessory (pvc)	
Inpipe mounting system for OPTOD sensor (t45-diam 50)	PF-ACC-C-00224
Inpipe mounting system for PH-ORP sensor (t90-diam 50)	PF-ACC-C-00225
Inpipe mounting system for C4E or NTU sensor (t90-diam 50)	PF-ACC-C-00226
Inpipe mounting system for CTZN sensor (t90-diam 90)	PF-ACC-M-00001
Inpipe installation accessory (stainless steel)	
Inpipe mounting system for OPTOD sensor (to solder)	PF-ACC-C-00227
Inpipe mounting system for PH-ORP sensor (to solder)	PF-ACC-C-00228
Inpipe mounting system for C4E or NTU sensor (to solder)	PF-ACC-C-00229
Inpipe mounting system for CTZN sensor (to solder)	NC-ACC-C-00200

PVC inpipe mounting system FOR DIGITAL SENSORS

Stainless steel inpipe mounting system FOR PH SENSOR

PONSEL BY AQUALABO

AQUA CONNECT',

Autonomous wireless real-time communication solution for Digisens Ponsel digital sensors

Application areas

- Aquaculture
- Sewage treatment plant (follow-up purification performances, input, rejects ...)
- Self-monitoring
- Natural waters
- Drinking water (pumping station, tank management …)
- Waste water (lift station, sanitation network …)

ADVANTAGES

- Transfer and hosting of secure data
- No IT management, only Internet browser for operation
- Real time visualization
- Management via Smartphone (Android and iOS) and PC, intuitive application
- 2 years autonomy minimum
- SMS and email alerts, geolocation of sensors

Aqua Connect' Solution

Our solution Aqua Connect' allows to follow in real time, measurements made by Digisens numeric sensors of the brand Ponsel.

Each sensor is connected to a «AquaMod» wireless autonomous module, which is itself connected to an «AquaGat» Gateway, which sends the data to our cloud server.

All the programming, calibration, alert / threshold settings ... Simply programming with your smartphone, tablet or PC. The application is free to download on your Android or iOS device.

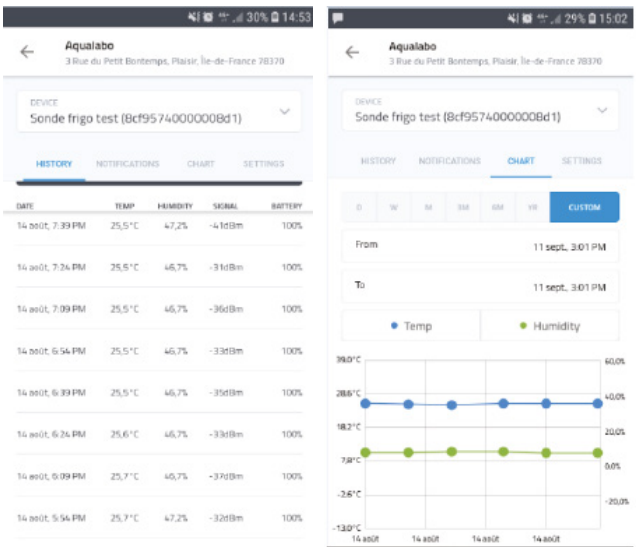
Monitoring your sensors has never been easier.

LoRa® Technology

Our AquaMod' modules communicate via the LoRaWan network, a radio communication protocol that allows the exchange of data. The AquaMod' send the data on the AquaGat', which can accommodate up to 100 modules (100 sensors, 1 sensor per module). The AquaGat 'is to connect to your Internet network.

Data analysis

Datas is stored on our Cloud, and available on the IoT in a Box application.



In the example, datas is saved here every 15 minutes (editable by the user)
It is possible to see the measurements in the form of tables, or graph (time scale modifiable by the user, day, week, month ...)
Daily, weekly, monthly reports can be customized by the user
An Excel export of data is available on the Cloud (.xls)

AquaMod' module specifications	
Autonomous	2 years minimum, to more than 5 years according to application
Dimensions	145 x 145 x 185 mm
Weight	650 g
Connectique	IP68
Input numeric Digisens sensors	Available parameters : pH, Redox, MES, Sludge blanket de boue, Turbidity, Temperature, Conductivity, Salinity, Disolved oxygen, COD, BOD, TOC, SAC254
Battery	Pack Lithium 3,6V 26 Ah
Security	Customizable SMS and email alerts (AquaMod' battery, AquaGat' power supply, high / low sensor value, sensor fault ...)
Mecanical	User replaceable battery without tools
Environment temperature	-10°C à +50°C
Sealing	By hand tightening, IP68 certified 1 month 1 m water. No tools needed
Norm	Conform to CE marking
LoRaWan range	3 km in urban areas. 15 km in rural areas
Data acquisition	From 2 minutes

- Real-time monitoring and data transmission of your numeric sensors (alarms when the threshold is exceeded, battery low, sensor fault ...)
- Geolocation of your sensors
- PC user interface, smartphone, tablet ...
- Customization by the user (display of curves, transfer of data in Excel, creation of «Dashboard» dashboards)
- Security and confidentiality (hosting on the Aqualabo Cloud, 24/7 monitoring, secure access via username and password ...)

PONSEL BY AQUALABO

AQUAMOD,

Autonomous wireless real-time communication solution for Digisens Ponsel digital sensors

The monitoring of your real time data was never so simple!

ADVANTAGES

- Local and independent radio communication network
- Transfer of the secure data
- No IT management, only Internet browser for operation
- Real time visualization
- 2 years autonomy minimum
- Real time surveillance and data transmission of your digital sensors
- Private Communication network LoRaWAN and frees operators

Application areas

Aquaculture / Sewage treatment plant (follow-up purification performances, input, rejects ...) / Self-monitoring / Natural waters / Drinking water (pumping station, tank management …) / Waste water (lift station, sanitation network …)

AquaMod' Solution

Our solution AquaMod' allows to follow in real time, the measures made by the digital sensors Digisens of the brand Ponsel on the parameters Temperature, Oxygen, pH, conductivity, Salinity, Redox, Turbidity, SS, Sludge Blanket, SAC254, CODeq, BODeq, COTeq.

Every sensor is connected on a wireless autonomous module « AquaMod ' « which records the data stemming from the digital sensor. The measures are transmitted in a Gateway, via an independent local area network LoRaWAN.

Accessible local Web application via WIFI since any browser (Chrome, Firefox, etc..) for the calibration of the sensors, for the configuration of the frequency of the acquisition.

Module AquaMod'

AquaMod ' is a tight, autonomous wireless module allowing to collect the data measured by the digital sensors physico-chemical DIGISENS of the brand Ponsel.

Simple to install and preconfigured in factory, the AquaMod' module is immediately operational.

Configuration and diagnostic in local via WiFi and Web application.

PONSEL BY AQUALABO

LOG-AQUA,

Autonomous and communicating datalogger for PONSEL digital sensors

ADVANTAGES

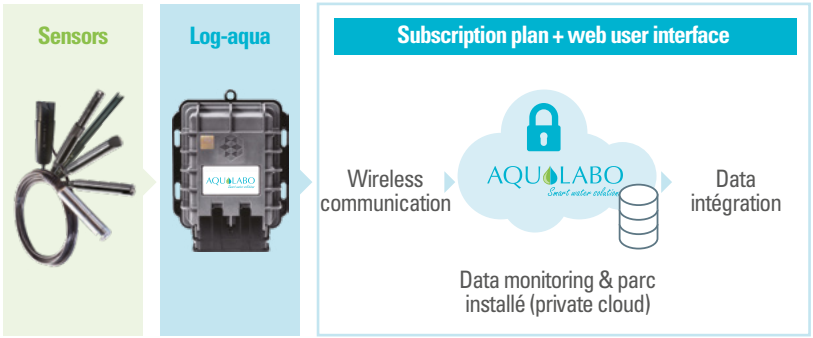
- Real time visualization via web interface
- Transfer and hosting of the secure data
- Cellular Network 2G, 3G et 4G via 2 multi-network SIM cards
- Connection of up to 4 sensors simultaneously
- Data export in .csv format
- SMS and e-mail alerts configuration

Application areas

- Aquaculture
- Sewage treatment plant (follow-up purification performances, input, rejects ...)
- Self-monitoring
- Natural waters
- Drinking water (pumping station, tank management . . .)
- Waste water (lift station, sanitation network . . .)

LOG-AQUA solution

The autonomous datalogger LOG-AQUA allows to follow in real time, the measures made by the digital sensors Digisens of the brand Ponsel on the parameters Temperature, Oxygen, pH, conductivity, Salinity, ORP, Turbidity.
The data collected by the logger is transmitted by cellular network to the server, then made visible via a secure web interface.



Thanks to its high capacity battery, the LOG-AQUA offers a large autonomy (up to 5 years depending on the configuration), and not require access to a power supply.
2 multi-operator SIM cards are included in each device, which will find the best available network to transmit data.
The location of the logger is automatic and visible in the web interface thanks to its integrated GPS, ideal for monitoring the various measurement points.

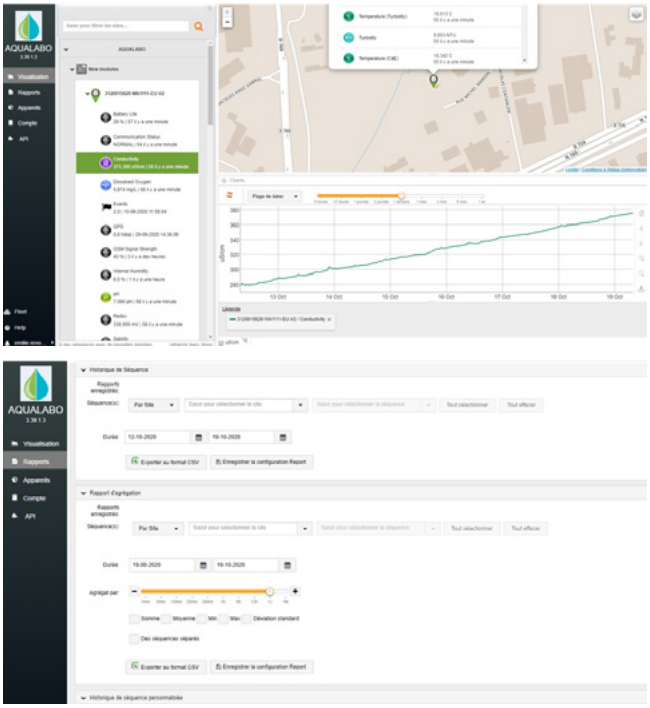
LOG-AQUA : Data mining

Real interface of management for the surveillance of the quality of waters, your Web platform AQUALABO concentrates and records the data collected by your on-site sensors.
The Web interface allows you:

- Oversee and configure your installations
- Configure the measurement frequency for each sensor and the data transmission frequency to the server
- Visualize your data under format board or graph
- To protect and export your data in the format csv.
- To set up alerts by email and\or via SMS.
- Manage user statuses (several types of accesses available)

Rental available

Securised web interface : www.home.aqualabo.fr

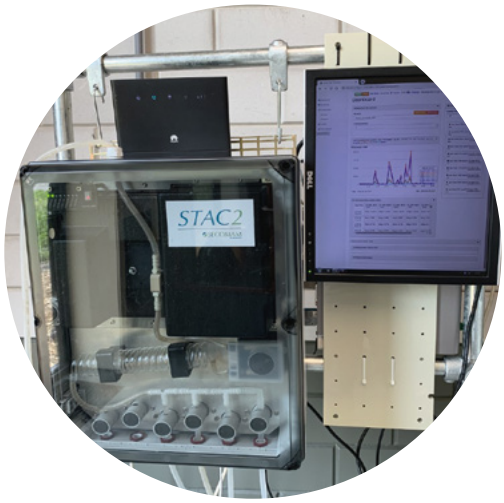


Polycarbonate with ABS	
(UL 94V-0 and UV-resistant)	Cloud
Cyber-security	TLS 1.2 protocol (AES-256)
Software integration	API REST, CSV
IoT software platform	Web-based from desktop, tablet, and mobile
Data export options	CSV
Device memory	8 GB
Data communication	Two-way authentication
Alarm threshold	Up to 4 per data stream
Alarm notifications	SMS, e-mail
System health check	Included
Connectivity	
Cellular Network	4G/3G/2G
SIM Cards	Dual SIM slots, 3FF
Cellular roaming	Global multi-network SIM(s)
Antenna	External antenna & backup internal antenna
Built-in GPS	Included
Power	
Primary power supply	Internal lithium battery 3,9 Vcc 3 A.32Ah.
Internal battery capacity	32Ah
Battery life	Up to 5+ years
Battery Notifications	Included
External power	6-24VDC automatic power source switching
Mechanical Enclosure	
Dimensions (W x H x D)	13,2 cm x 16,5 cm x 7,3 cm
Weight	0,9 kg (2,0 lb)
Enclosure material	Polycarbonate with ABS (UL 94V-0 and UV-resistant)
Protection class	IP 68
Operating temperature	-40° to +80°C
Storage temperature	-40° to +80°C
Sensor Input	
Sensor ports	3 ports: supports up to 12 sensors using cable splitters Digital sensor serial port: up to 4 sensors connected simultaneously
Sensor connection	Wired with M12 connectors
Serial interfaces	RS485, RS232, SDI-12
Serial protocols	Modbus RTU, ASCII
Analog channels	4 (4-20 mA, 0-24 V)
Sensor power supply	12 V or 3,6 V, 350 mA

SECOMAM BY AQUALABO

STAC2,

On-line UV-Vis Alert Analyser for water chemical quality monitoring of BOD / COD / TOC / TSS and Nitrates



Areas of application

Wastewater treatment plant (follow-up purification performance, input, discharge, etc.) / Drinking water plant (pumping station, tank management, etc.) / Natural water / Process water / River monitoring / Aquaculture

A genuine "industrial" UV-Vis analyzer

The STAC2 uses innovative and patented technology to perform the following tasks:

- Estimate Organic Matter (BOD, COD, TOC) content, assess the TSS level and measure nitrate concentration.
- Monitor water quality with continuous multi-parameter and nitrate analyses for surface water (rivers, lakes, & reservoirs). The analyser is ideal in the event of accidental pollution, especially for organic contaminants, municipal or industrial WWTP disruption
- Monitor influents and effluents for Wastewater Treatment Plants. As with surface waters, STAC2 can monitor water pollution (BOD, COD, TSS, NO3-) and water quality.
- Handle industrial applications such as high level chloride or organic chemicals.

STAC2 Full SpectrumTechnology and Data Handling

The STAC2 scans and measures the entire absorption spectrum and creates a unique fingerprint from the sample. STAC technology is used by many customers worldwide as a vital decision making tool in their water quality monitoring. The STAC2 is the only analyser in the world that can measure and analyze a multitude of organic substances without using reagents.

ADVANTAGES

- Fingerprint capability: scanning from 190 up to 800nm with unique 1 nm bandwidth
- Versatile sampling: 4 channels and 10 parameters available per channel
- Data connectivity: both local and cloud based data collection by means of a WiFi connection
- Real-time visualization of the water's fingerprint: BOD / COD / TOC / Nitrates
- Secomam UV-Vis technology since 1966!
- Robust and rugged design with high-tech data handling

The STAC2 analyser is a technologically advanced instrument, able to be connected to an Ethernet or WIFI network.

There is no screen on the instrument itself, and the human interface is based on an embedded Web page, which users can access via the network. This Web Page enables the customer to manage the entire configuration, status and results of the STAC2.

STAC2 unique detector

Xenon lamp with scanning capability from 190 to 800nm with 1nm bandwidth.

References

UV Online Analyzer for COD BOD TOC TSS NO3 STAC2 1 way	70MP0610
UV Online Analyzer for COD BOD TOC TSS NO3 STAC2 2 ways	70MP0611
UV Online Analyzer for COD BOD TOC TSS NO3 STAC2 3 ways	70MP0612
UV Online Analyzer for COD BOD TOC TSS NO3 STAC2 4 ways	70MP0613
S200 display for STAC2 230 V Digital transmitter S200. Power supply 230 V/AC - 1 Modbus input for STAC2, - 2 outputs 4-20 mA.	120010SU

STAC2 unique sampling

• Automatic and sequential sampling circuit rinsing and cuvette cleaning • utomatic blank (reference sample) scanning to calculate and compare the absorbance spectra. • Programmable automatic sampling from 5 minutes to 6 hours •Pinching valves Ø 8 mm for TSS reading without filtration • 4 different sample streams.

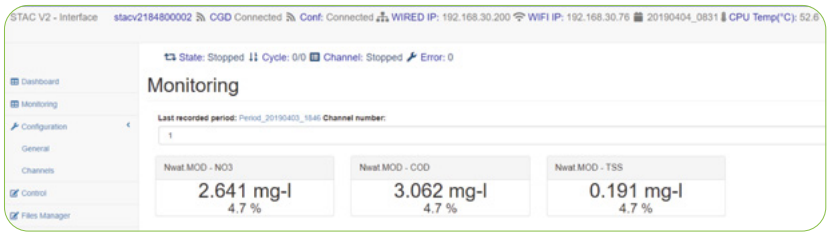
KEY POINTS

- Physical method with almost no consumables
- Very fast reading (< 2 minutes)
- Easy and little maintenance
- Quantitative and qualitative readings
- STAC2 Alert notification: comparison of the UV model and (deviation of the) UV spectrum: Water Quality information
- Built-in enclosures with aqueous samples isolated from the electronic parts
- CE Certification
- Automatic cycle measurement start software option in the event of power failure.

STAC2 datamining & connectivity

The STAC2 analyser is a technologically advanced instrument that connects to an Ethernet or WIFI network.
The Web platform enables you to:

- Visualize your data in table or graph format,
- Export your data on an external USB storage stick.
- Set up fluid, sequential sampling and measurement parameters.
- Set up WIFI and Ethernet connectivity parameters.



In this example, data is saved every 15 minutes (editable by the user). It is possible to see the measurements tables or graphs (time scale modifiable by users: day, week or month). Users can customize daily, weekly, or monthly reports. Data can be exported as an Excel file from the Cloud.

STAC2 – the freedom to make & configure your own model

The UV-PRO software gives users acquisition and digital processing freedom in terms of the graphic spectrum of measurements made during the analysis. The advantage lies in being able to measure and process spectra, improve your customized calculation models and calibrate the instrument.

Caractéristiques techniques	
Sample streams	4 Different samples
Dimensions	Height: 500 mm Width: 400 mm Depth: 265 mm
Weight	18 kg
Protection	IP53
Digital output	1x Ethernet RJ45 port for MODBUS and/or HMI access 1x WIFI connection for HMI access 1x USB port for USB Key recorded data history backup
Flow cells	Interchangeable 2, 5 and 50mm optical path
Cleaning	Automatic, chemical for tubing / Internal case by compressed air
Lamp	Xenon
Blank	Automatic
Data readout	On separate PC / tablet or mobile phone (optional)
Operating temperature	10°C to 40°C / 50°F to 104°F
Data Storage	On internal SD Card. An internal security backup is performed daily on internal USB drive. Data export on external USB key.
Mounting	Wall-mounted
Digital input / output	Through MODBUS TCP/IP and RTU
Power	24VDC +/-0.5VDC 3A or 100 – 240V (Optional) 50-60Hz with External Power supply
Measuring range	• COD : 2 to 8750 mg/L • BOD : 0.5 to 8750 mg/L • TOC : 1 to 7500 mg/L • TSS : 5 to 2500 mg/L • NO3 : 1 to 1000 mg/L

SECOMAM BY AQUALABO

PASTEL UV

Portable UV reagentless analyzer,

Pastel UV is a reagent free tester for water quality control and effluents with measurements of COD, BOD, TSS, TOC, NO_3… in urban effluents, natural bodies of water, water treatment plant output.

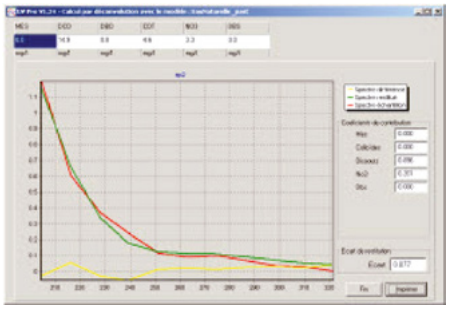
ADVANTAGES

- Multi-parametric measurements: COD, BOD, TOC, TSS, NO_3
- All types of water (raw, treated, natural, and processed water)
- Fast, reading in less than a minute
- Reagent free

The PASTEL UV is able to measure 5 parameters simultaneously and thus permits rapid characterization of the effluent.
Once the sample is taken with a micropipette and the quartz tank filled, the analysis and the results take less than a minute. This speed makes it possible to carry out a large number of measurements and to react in real time in cases of accidental pollution or of a process incident.
The sample undergoes no pre-treatment; if it is too concentrated, the device calculates automatically the dilution factor to be applied.
As PASTEL UV works without reagents or other additives, the cost of operating remains unchanged, no matter how many analyses are made.
The set of data can be stored with a sample number, a code for the user, the location and the time of analysis.
In addition to quantitative data the UV technology compares the profile of the sample with the type of selected water. This is used to validate the quantitative data and / or to detect the presence of accidental pollution.

UVPRO Software

- UV spectrum operating software
- It can be used either to drive a laboratory device or to continuously collect data on-line from an analyzer.
- Setting up or / and calibration of the Advanced Spectral Deconvolution
- Driving of all SECOMAM UV detectors
- Data archiving
- Maintenance support tools
- Operation on the spectra (derivatives, smoothing, shift…)



Technical specifications	
Spectral range	200 to 350 nm
Measuring cuvette	2 optical paths: 5 and 10 mm
Weight	9 kg
Dimensions	40 x 40 x 40 cm
Output	Display screen (64 x 128 pixels)RS232C bidirectional
Power supply	Internal Battery 100 readings External 110/240V / 50/60 Hz
Power	35 W

Delivered with a carrying case, a micropipette, a transformer 110-240V / 50-60Hz.

References

PASTEL UV (UV Pro software in option)	70MP0316
UV-Pro Software	70MP0405
Kyoline printer	0M8303
1 cell 5x10 mm, standard quartz cell	0GQ203Z0
RS232C cable	0X5764D

BACTcontrol,

Online monitor of total and specific bacteria activity (E.coli and coliform) in water

The BACTcontrol is an "early warning system", complementing the officially accepted methods for the detection of microbiological activity. The measurements are realized in a short period of time, 1-2 hours, depending on the sampling volume and cleaning procedures. This is in contrast to classical microbiological methods, which are labor-intensive and in which cultivation of the organisms is required, taking several days before obtaining reliable results (24-48 hours).

The BACTcontrol is an online automated instrument for the detection of microbiological activity in water. It measures the specific enzymatic activities of ß-galactosidase (coliforms), ß-glucuronidase (E.coli) and alkaline phosphatase (total activity, biomass), as an indicator of the presence of bacterial contamination. The enzyme activity is detected by adding reagents (consumables) which contain a fluorescent indicator. The reagents are substrate-specific for the enzyme to be detected, meaning that there is an increase in fluorescence when the enzyme is present in the sample.

Instrument Specifications

Based on fluorescent measurement of specific enzymatic activity:

- ß-Glucuronidase-> indicates E.coli activity
- ß-Galactosidase-> indicates Coliform activity
- Alkaline Phosphatase -> Total Activity

Communication Specifications

- Integrated PC with Windows
- Graphical user interface with touchscreen
- Full network capability via direct LAN
- 2 x USB 2.0 type A
- 2 x LAN 10/100/1000MB/s; RJ-45
- 2x digital input
- 2x relays output
- Protocols: Modbus TCP and Modbus serial, others on request
- 1 x 4 - 20mA outputs
- English operating system: German, French and Spanish, and others on request

Specifications Options

- Modem slot for UMTS, ISDN or analog (modem optional)
- Second sample inlet / extra rinsing
- Air-conditioning unit (if higher than 30°C / 86F)

Automatic cleaning

- User selectable cleaning cycles
- Cleaning solution (sodium hypochlorite solution < 0,05% active) prevents fouling and enables unattended deployment for several weeks.

Technical specifications	
Protection classification	IP 54
Weight	25 KG (excluding airco)
Dimensions (h x b x d)	460 x 450 x 321 mm
Cabinet material	St. Steel
Sample pressure	max 0.05 bar
Sample connection	4 mm ID
Sample temp.	10 - 35°C / 50F 95F
Sample flow rate	3 l/h
Ambient temperature	15 - 30°C / 59F • 86F, > optional air-co necessary
Power consumption (average)	<100W
Power	220V - 50 Hz or 110V - 60Hz
1 pump	programmable (sample)

microLAN
On-line Biomonitoring Systems

AlgControl,

On-line Fluorescence monitoring of different algae classes and toxic algae

The ALGcontrol continuously measures the chlorophyll fluorescence of different algae classes in real time. Compared to time-consuming sample preparations and counting by microscope, the on-line fluorescence monitoring provides quick determination of the chlorophyll content in for example lakes, rivers and reservoirs.

Instrument Specifications

The ALGcontrol can do 5 classes: green, blue (cyanobacteria, phycocyanin), brown (diatoms and dinoflagellates), red algae (incl. crypto) and total chlorophyll.

Instrument Ranges

• Total chlorophyll: 0-200 µg/l (Chl.-a, green algae + blue-green algae) • Cyano chlorophyll: 0-200 µg/l (Chl.-a, blue-green algae) • Precision: 0,2 µg/l • Turbidity: 0-400 TU • 1 programmable pump (sample / cleaning) • 2 programmable valves

Specifications Communication

• Integrated PC with Windows-based • Graphical user interface with interactive touch screen operation • Full network capability via direct LAN connection • All standard communications interfaces are supported, LAN, RS232 or RS485 • Protocols: Modbus RTU, Modbus TCP • 1x output 4 - 20mA

Technical Details

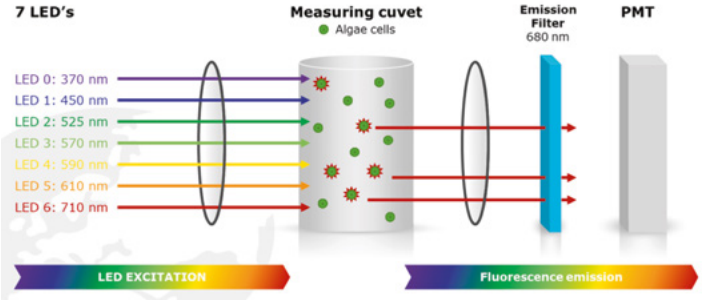
• Power supply 24V DC • Protection classification: IP 54 (optional IP65) • Dimensions (HxWxD): 470 x 450 x 321 • Cabinet material: St. Steel • Sample pressure: 0 bar (max 0.05 bar overpressure) • Sample temperature: 10 - 35°C • Sample flow rate: 3 l/h • Environmental temperature: 15 - 35°C • Power consumption (average): 45W • Certification: CE

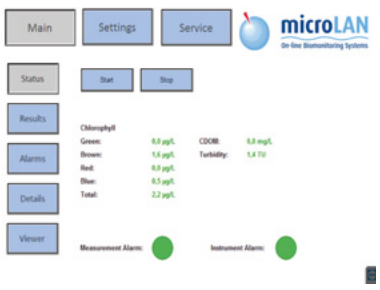
Automatic cleaning

- User selectable cleaning cycles
- Cleaning solution (sodium hypochlorite solution < 0,05% active) or H2O2 prevents fouling and unattended usage for several weeks

The ALGcontrol makes use of fluorescence excitation. When chlorophyll molecules absorb light, a fraction of the energy absorbed is reemitted as fluorescence. Algae of the same division contain a similar quantity and quality of pigments, their fluorescence excitation spectrum (with a fixed emission wavelength at 680nm) is significant. Thus, it is possible to differentiate divisions of algae by their fluorescence excitation spectrum. Other fluorescing matter are detected to enhance the accuracy. DOM = dissolved organic matters measured with the 370nm wavelength and turbidity is measured with the 710nm wavelength. The ALGcontrol uses 7 Light Emitting Diodes or LED's for fluorescence excitation. The LED's emit light at 7 selected wavelengths (370nm, 450nm, 525nm, 570nm, 590nm, 610nm and 710nm).

The LED's in the ALGcontrol are switched on, one after the other, at high frequency. The fluorescence signal for each LED is measured and averaged during a pre-defined time. The fluorescence values for each of the LEDs are given in "counts" after the measurement and shown as raw data. The concentration of the algae will be calculated from these values (counts) to µg/l and the results are displayed in a graph. Correction for other fluorescing matters (DOM and turbidity) will also be calculated automatically.





microLAN
On-line Biomonitoring Systems

iTOXcontrol,
Integrated On-line Toxicity Monitoring System

The iTOXcontrol is the most versatile screening and Early Warning System in the world with unique options:

- Integrated and automated cultivation of the bacteria inside of the instrument.
- Information can be sent to an internet database to support decision making for alarm monitoring and modeling.
- Integration of different optional sensors like a UV-VIS sensor or Algae sensor (for Chlorophyll-a and blue-green algae) which creates a combined system for Early Warning and Water Quality Monitoring (ask for more specifications and details).

Extended maintenance cycle

By integrating the cultivation of the bacteria into the iTOXcontrol, it is possible to extend the maintenance cycle to 1h every 2 weeks. This also decreases the usage of bacteria to 50%.
The new design of the bacteria (40 ml) module allows better mixing results.

Hardware

The iTOXcontrol is placed in a ventilated cabinet:

- Size: 50 x 50 x 110 cm (DxWxH), with trolley an extra 73 cm.
- Weight: + 90 kg (+ 20 kg with optional air-conditioning)
- Housing with glass front door, can be locked for protection.
- Build-in PC with keyboard and touchpad, DVD reader/writer.
- 17 inch TFT screen, Ethernet Controller, COM port and USB connectors
- Power: 220V - 50 Hz or 110V - 60Hz.

Software

The TOXcontrol Engine software runs under Windows 7 and controls all the settings of the instrument. The TOXview data collection software is used for or calculations, settings and the use of alarm levels. The status of the instrument is displayed at the Status page of the software. The iTOXcontrol instrument is performing the instructions given by the TOXcontrol Engine. The different settings for the instrument as the readings for calculations using variable data given by the user, are loaded when the program is started. The required data for evaluation purposes or for obtaining a history file, will be saved during a run in the TOXview database. Graphic charts are developed or changed using TOXview, which can be selected in the Graph page.

Technical specifications	
Dimensions	50x50x 183 cm (L x l x H).
Communication	Standard: TCP/IP, Analog output: 4 – 20 mA / Optional: external USB modem 56k, External COM port for MODBUS data communication.
Optional	Modem for telephone connection or additional RS232 connection
Maintenance	Very reliable, low running & maintenance cost
TOXview Software	For data acquisition & evaluation
Sample temperature	15 - 30 degrees C.
Working conditions (room temperature)	Standard: 15 - 30 degrees C / Optional: 30 – 40 degrees. C. with additional cooling unit.
Cabinet	Protection class IP 31
Sample water	+ 10 ml/h (4,5 ml per measurement, 2 per hour)
Reference water	+ 100 ml/h per measurement, not chlorinated, optional dosage with a magnetic valve
Connections	Drain : waste and positive control: 20 mm (external) Feed : sample and reference: 4 mm (external, for silicone tubing)

In-line, automatic dechlorination is possible.

microLAN
On-line Biomonitoring Systems

TOXmini,
Simple measurements of biological and chemical luminescence reactions

The TOXmini is a portable and easy to use system for toxicity measurements in a wide variety of samples and applications. It automatically measures the luminescent effect of the Vibrio fisheri and will give an indication when the tested sample is toxic.

It can be used in the laboratory (also in combination with the optional cooling block) and as a field system running on the reloading internal batteries. It is also an ideal solution to be used on conjunction with the TOXcontrol because it uses the same reagents (freeze dried bacteria, blank solution and positive control).

Modern and flexible

- Battery and mains operable
- High-resolution graphic display
- User language German or English
- Serial 9 PIN RS 232 interface for selective data transfer to a standard PC
- Variable measurement times in order to obtain optimum results even in case of weak luminescence.

User-friendly

- Data memory for up to 2000 test results
- Selective data administration (calling/deleting) by means of the location identification digit, sample number, date, time parameters
- 6 individual program places for user-defined measuring programs
- Classification of test results by means of previously defined thresholds

Variable test methods

- <BioTox-S>: Implementation of luminous bacteria toxicity tests only with the analysis of the final light intensity of the tests
- <BioTox-B>: Implementation of luminous bacteria toxicity tests with the analysis of initial and final light intensity
- <RLU>: Evaluation of luminescence tests (e.g. ATP tests, Reporter gene assays) with respect to relative light units (RLU)

Applications

- Intake protection for drinkingwater companies
- Waste water checking: Influent and effluent measurements
- Process water security control for food applications for HACCP applications
- Off line control, validation and verification of the results of the TOXcontrol
- Testing the sensitivity of the luminescent bacteria (Vibrio fischeri)
- Off-line comparison with the on-line TOXcontrol
- QA/QC applications of bacteria and reagents
- Other toxicity applications

Technical specifications	
Detector	Ultra Fast Single Photon Counter
Spectral wave range	380 - 630 nm
Software	Microprocessor software, 6 users specific measurement protocols can be stored
Data storage	Max. 2000 measurements
User languages	Optionally German or English
Display	Illuminated graphic display (128 x 64 dots)
Interface	RS 232 interface for data transfer to the PC or printer
Operating mode	Batterie or mains operable
Batteries (rechargeable batteries)	3 rechargeable batteries: NiCd R14/C/Baby/UM2 batteries; 2500 mAh
Mains power supply	230 V / 50 Hz, 115 V / 60 Hz
Dimensions (H / W / D)	170 x 150 x 280 mm
Weight	2 kg (incl. batteries)
Humidity	10 % to 90 % (no condensation)
Temperature Range	+15 °C to +30 °C
Warranty	1 year

AQUALYSE BY AQUALABO

BABYNOX ECO,

Managing your samples made easy

The stationary BABYNOX Eco sampler is a compact device that operates in even the harshest conditions, and manufactured in line with Aqualyse quality standards

- Made entirely from stainless steel 304 (316Ti in option)
- Delivered with workshop-pre-programmed "Plug & Play"
- Vacuum pump sampling system for more accurate sampling. Peristaltic pump available on request
- No recalibration required after cleaning
- Software with remote controlled program
- 9 customizable programs that can be activated simultaneously
- Cold and hot air conditioned / ventilated, precision probe temperature control, automatic defrosting
- Easy access to key components for ease of maintenance
- Many options available

FOLLOWING NORM CE-ISO 5667

XY distribution system

- Direct discharge
- No cross-contamination
- No fouling or plugging, no dispenser plate to clean
- Upkeep time saving
- Quality of samples

ADVANTAGES

- Simple and sturdy
- Ergonomics
- Accuracy and reliability
- Easy cleaning
- Operates under very difficult climatic and temperature conditions
- Many operating combinations
- Quiet and accurate vacuum pump system

Technical specifications	
Dimensions	1020 x 590 x 590 mm
Weight	between 70 and 80 kg depending on the version
Power supply	230 V AC - 50 Hz
Main fuse	16 A
Output	750 VA max. including a high performance refrigeration system and heating unit
Operating temperature	- 25°C to + 42°C
Inputs	Flow rate: 0 / 4 -20 mA / Dry contact • Event: Dry contact
Outputs (4 in total)	Operating message • Default message • 2 free outputs

BABYNOX Eco meets the standards: CE - ISO 5667

Available versions

- **Packaging:**
  - **Single containers:**
    10,4 L / 26 L PE
    2 x 10,4 L PE
    4 x 6,4 L / 12 x 2,9 L PE or 12 x 2 L glass
    16 x 2 L PE
    24 x 1 L PE or 24 x 1 L glass
  - **Combined containers:**
    12 x 1 L + 1 x 10,4 L PE
    12 x 2L + 1 x 6,4 L PE
    7 x 2 L + 14 x 1 L PE
- **Communication:**
  The BABYNOX Eco can, as an option, house a modem for remote operating control, sending default messages via SMS, as well as remote start-up using a cell phone.

References	
BABYNOX ECO refrigerated sampler 316Ti 1 bottle 26,4 l.	AQXF110126E
BABYNOX ECO refrigerated sampler 316Ti 4x12L PE	AQXF110412E
BABYNOX ECO refrigerated sampler 12 bottles 2,9 l.	AQXF111203E
BABYNOX ECO sampler refrigerated 24 bottles 1 l.	AQXF112401E
Options	
Internal light with door contractor	LUMIEAXF
Key lock	BARILAXF
Mounting on wheels	ROULEAXF11
Raised base 300mm	REHAUAXF
316 Ti Stainless Steel	INOX316TIAXF

AQUALYSE BY AQUALABO

AQUACOMPACT
Isotherm Portable Sampler

ADVANTAGES

- Housing HDPE for easy transport of the sampler in the field
- Possibility to connect a flowmeter and an external battery
- USB socket in front of the controller
- Robust vacuum pump sampling system for highest repeatability, simple cleaning and minimal maintenance
- Visualization of the bottles during sampling

Applications

- Waste Water effluents
- Storm water monitoring
- Storm discharge monitoring
- Conformity with ISO 5667-10 Norm
- Pre-treatment compliance

General Characteristics	
Housing	HDPE
Dimensions	640 x 505 x 450 mm (H x W x D)
Weight	17.5 kg
Power requirements	110 - 240 V AC ; 50/60 Hz / Battery : 24 V DC
Sampler closure	Hinged closure, possibility to add a security padlock
Inputs	Charger or external 24 V DC power supply (3 A) 0 or 4-20mA (for flowmeter or event signal)

Sampling	
Sampling System	VAC vacuum pump system
Sampling Modes	Sampling proportional to time, volume and event
Sunction hose	Diameter : 12 mm Length : 5m (standard) Material : PVC reinforced with clear ballast brass or stainless steel at the end of tube
Sample Volume	12 - 200 ml (en option : 350 ml)
Volume accuracy *	± 1 ml
Speed volume	0,50 m/s (at 5 m height) adjustable
Pump	24 V DC Pressure : 0.7 to 1 bar 9 L/min free flow
Clearing blow (before and after the sample)	1 to 120 seconds
Maximum Suction height	7m
Materials	Borosilicate glass, PE, PVC, stainless steel, silicone

Sample Distribution	
Bottles	1 x 17 L composite container HDPE

Controller	
Batteries	Lead-acid incorporated, maintenance-free
Material	Stainless steel AISI304 (1.4301)
Operating temperature	-20°C to + 60°C
Protection	IP55
Number of programms	9 (simultaneous or chained)
Intervals	1 mn to 100 h
Sample Time	1 mn to 250 h
Remote start on external contact	Yes
Sampling from external contact (e.g. flowmeter)	1 to 9999 contacts
USB socket in front of the panel	Yes

Reference

Isotherm portable sampler AQUACOMPACT 1 x 17L PE	AQXPAC0117

*Volumes must be distributed with fidelity and accuracy of at least 5% according ISO 5667-10

AQUALYSE BY AQUALABO

AQUA-UV,
316L stainless steel measuring channel for circular pipe laying

The Venturi that slides into the tightest spots.

Fully 316L stainless steel, Aqua-UV® Aqualyse U-shaped is actually a measurer Canal «U» easily fitting into pipes in all diameters for a very economical and quick installation.

The Aqua-UV has been specially designed to answer to the problematic installation in small dimensions and insertion in cylindrical pipe layings. A simple existing room or the end of a pipe is sufficient for the installation.

Upstream slope up to 1% is acceptable. Stainless steel improves the fluidity and reduces the deposits on walls. The transport of sediment is optimum and the development of minimum algae. The rigidity of this material makes it easier to install than a polyester channel by reducing the installation costs.

The Aqua-UV is ideally suited for installation in standard vents.

Applications

- Sanitation systems
- Stormwater systems
- Industrial or collective discharges

ADVANTAGES

- Reduced of Civil Engineering
- Excellent accuracy
- Very Reduced size

	Ø 200	Ø 250	Ø 300	Ø 400	Ø 500	Ø 600
Recommended minimum flow (m^3/h)	3	3	4	4	5	6
Recommended maximum flow (m^3/h)	67	119	180	383	649	1185
Overall length (excluding bracket)	300	300	360	480	600	720
Overall height (excluding bracket)	240	300	360	480	600	720
Minimum approach length REQUIRED	2000	2500	3000	4000	5000	6000

Material: stainless steel 316L. Other models : contact us. All dimensions in mm.

References

U Threshold triangular section AQUA UV 67 m^3/h	UV0200
U Threshold triangular section AQUA UV119 m^3/h	UV0250
U Threshold triangular section AQUA UV180 m^3/h	UV0300
U Threshold triangular section AQUA UV 383 m^3/h	UV0400
U Threshold triangular section AQUA UV 649 m^3/h	UV0500
U Threshold triangular section AQUA UV 1185 m^3/h	UV0600

AQUAFLOW,

Venturis flumes

Venturi flumes are intended to measure flowrate in open channels with a free surface.

Made from reinforced polyester, they offer excellent dimensional stability, ensuring highly accurate measurement.
Combined with a level sensor, they become a continuous flowrate measurement solution that is reliable and accurate.
Suitable for liquids loaded with solid or corrosive particles, they can be used in industry, water treatment and WWTP.

FOLLOWING NORM ISO 4359

Principle

The Venturi principle is a lateral-contraction system, moving liquids from a sub-critical to a super-critical flow at the throat cross-section. Adding a threshold to the bottom of the channel enables low flow rates to be measured.
To obtain the flowrate of this discharge, simply measure the level upstream of the contraction and convert it to a flowrate using a formula specific to the size of each Venturi.
The Q(h) curve is provided for each channel.

ADVANTAGES

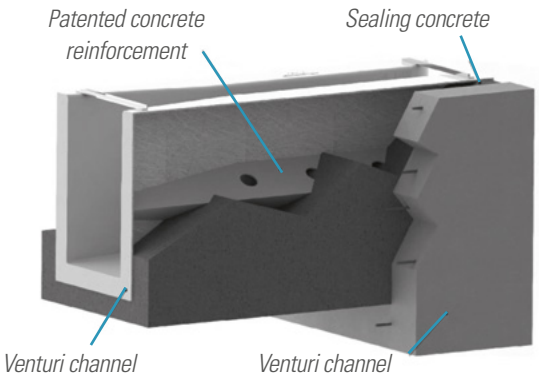
- Open channel flowrate
- Level conversion to flowrate
- Clear or loaded liquids
- Made of polyester resin
- Compliant with ISO 4359
- Ranges from 5 to 2,200 m^3/h

Installation

The complete channel must have a straight length before the venturi of 10 x B.
This approach length must be masonry or made from the optional measurement and approach channels.
The measuring channel consists of a measuring well with a level scale.
The approach channel uses the dimensions of the measuring channel.

Reinforced structure

As the main cause of measurement inaccuracy is channel installation conditions, and in particular the risk of deformation associated with pouring concrete, the Venturi channel includes an omega-type patented horizontal side reinforcement that provides its rigidity and better grip for the concrete.



Templates	MINIMUM FLOWRATE			NOMINAL FLOWRATE			MAXIMUM FLOWRATE		b mm	B mm	Lc mm	P mm	C mm
	h (mm)	Q (l/s)	Q (m3/h)	h (mm)	Q (l/s)	Q (m3/h)	Q (l/s)	Q (m3/h)					
AQF6 (1)	5	0,02	0,08	81	1,37	4,95	1,89	6,79	35	50	165	15	140
AQF15 (1)	16	0,20	0,73	122	4,3	15,4	5,84	21	59	100	245	30	200
AQF40	50	1,94	7,00	178	13	47	18	65	102	156	360	30	270
AQF100	50	2,10	7,55	259	25	89	34	123	110	220	520	30	370
AQF200	50	3,24	11,67	330	55	200	76	273	170	340	660	30	460
AQF300	50	4,00	14,41	370	80	290	112	402	210	420	740	30	510
AQF600	51,5	5,38	19,37	506	167	600	230	829	270	450	1012	30	680
AQF1000	61	8,73	31,44	605	273	982	376	1355	340	540	1210	30	800
AQF3000	Maximum Flowrate : 3860 m³/h - Please contact us for more informations												

(1) Standard ISO 4359 requires width b to be > 100 mm

Venturi Channel

Templates	OVERALL DIMENSIONS		
	IT (mm)	LT (mm)	HT (mm)
AQF6 (2)	140	733	170
AQFMV15 (3)	200	995	230
AQFV40	244	607	314
AQFV100	308	930	414
AQFV200	456	1395	518
AQFV300	540	1636	570
AQFV600	590	1830	750
AQFV1000	700	2126	880

(2) A single element with approach, measurement and integrated well (3) Supplied with measurement channel and integrated well (4) Provided in the form of two panels

Measurement channels

Templates	OVERALL DIMENSIONS		
	IT (mm)	LT (mm)	HT (mm)
AQFM40	244	780	314
AQFM100	308	1100	414
AQFM200	456	1700	518
AQFM300	540	2100	570

Canaux de mesure pour versions 600 et 1000 non disponibles

Approach channels

Templates	OVERALL DIMENSIONS		
	IT (mm)	LT (mm)	HT (mm)
AQFA15	200	450	230
AQFA40	244	780	314
AQFA100	308	1100	414
AQFA200	456	1700	518
AQFA300	540	2100	570

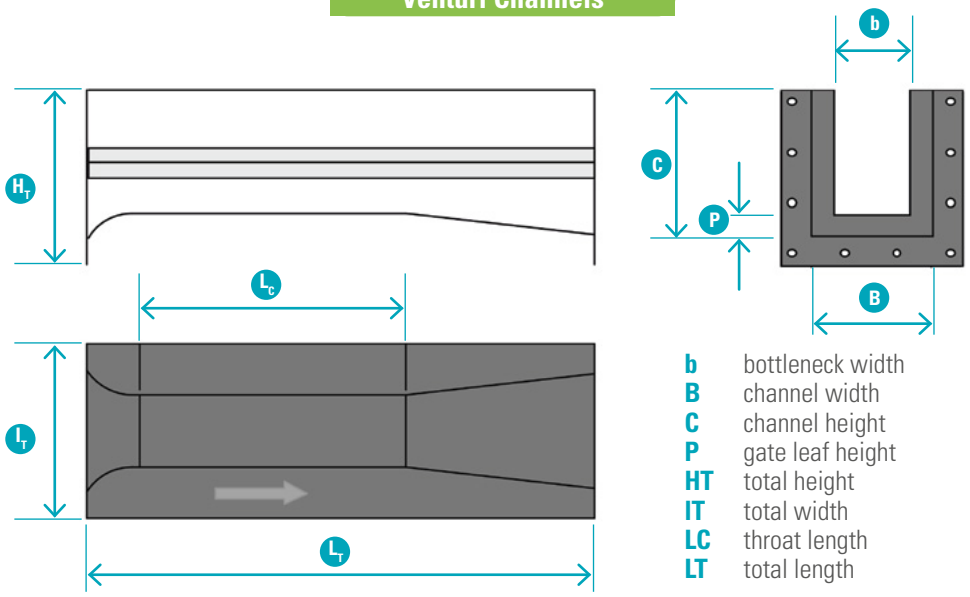
600 and 1000 measuring channels not available

References

Venturi flume AQUAFLOW with approach channel, 6m³/h	AQF6
Venturi flume AQUAFLOW with approach channel, 15m³/h	AQF15
Venturi flume AQUAFLOW with approach channel, 40m³/h	AQF40
Venturi flume AQUAFLOW with approach channel, 100m³/h	AQF100
Venturi flume AQUAFLOW with approach channel, 200m³/h	AQF200
Venturi flume AQUAFLOW with approach channel, 300m³/h	AQF300
Venturi flume AQUAFLOW 600m³/h	AQF600
Venturi flume AQUAFLOW 1000m³/h	AQF1000
Venturi flume AQUAFLOW 3000 m³/h	AQF3000

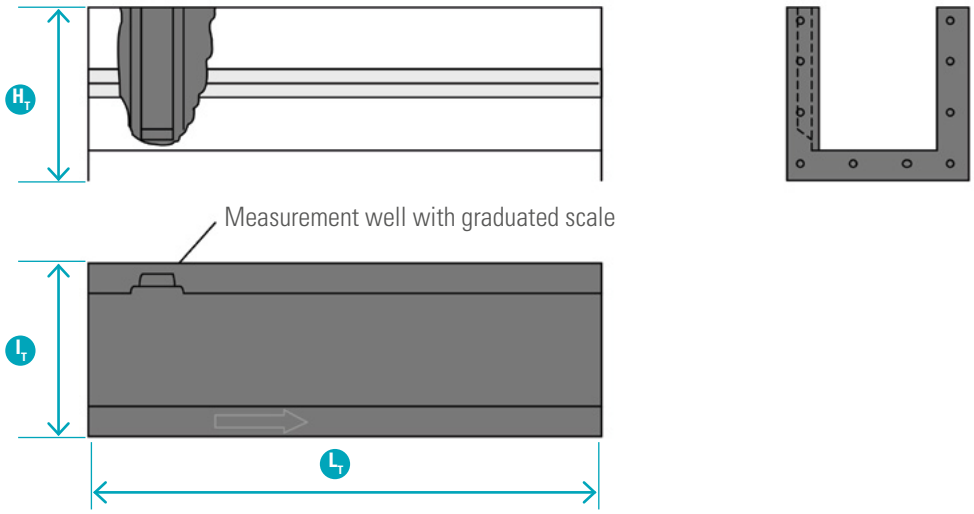
AQUALYSE BY AQUALABO

Venturi Channels

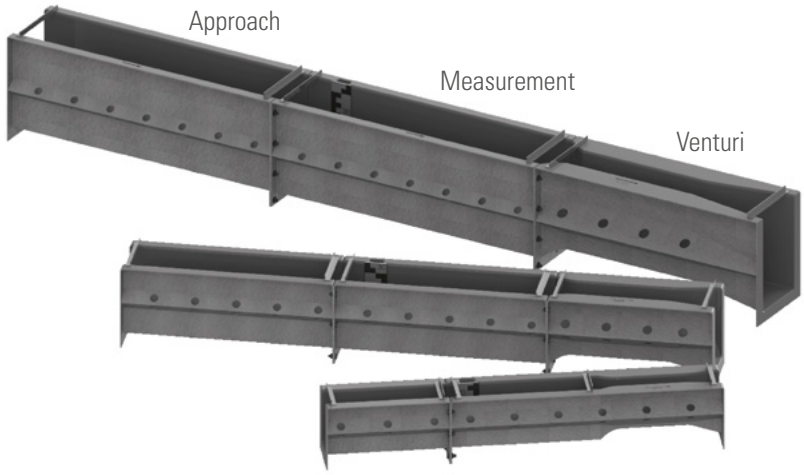


b	bottleneck width
B	channel width
C	channel height
P	gate leaf height
HT	total height
IT	total width
LC	throat length
LT	total length

Measuring channels



Assembly



The three channels, approach, measurement and venturi are bolted together, making up a metering channel with an upstream length 10 times its width B

AQUALYSE BY AQUALABO

AQUABAC,

Measuring tank with overflow of triangular or rectangular notch

Five models of AQUABAC with integrated overflows allow for measurements from 2.9 to 25 m³/h.

The AQUABAC is a rectangular tank made of PVC or 316L stainless steel with a triangular or rectangular overflow. An ultrasonic probe or radar sensor can be placed on the handle for measuring flow rate.
The ideal solution for measuring small flow rates.

AVANTAGES

- Ultra quick setup and implementation
- Very little engineering required
- More reliable results
- Excellent resistance to chemicals
- Easy to clean (thanks to the purge plug provided for emptying the tank)

Description

- The AQUABAC measuring tanks are made of stainless material, they have excellent resistance to chemicals.
- The "economic" versions are entirely of PVC (including the weir).
- Delivered in one piece an AQUABAC can be buried or set on the floor, and only requires for intake and drainage.
- Installation does not involve adjusting the «sensitive» parts (the spill blade and internal geometry of the overflow). This simplified installation, minimizing the risk of errors, guarantees excellent measurements.

	AQUABAC 3	AQUABAC 4	AQUABAC 8	AQUABAC 16	AQUABAC 25
MAXIMUM FLOW (m³/h)	2,9	4	8	16	25
WIDTH	290	290	290	290	290
TANK HEIGHT	440	440	440	305	305
OVERALL HEIGHT with measuring handle	850	850	850	715	715
LENGTH	1440	1440	1440	2440	2800

Tank material: grey PVC - Overflow material: 316L stainless steel (except economical models: PVC).
All dimensions in mm.

AQUALYSE can design and produce all types of overflows (triangular indentation, rectangular or others) to match your specific needs and ready to be installed at your location.
A table of height/flow ratio corresponding to applicable ISO standards is provided.

References

Aquabac with "V" weir 20 degrees	AQBAC03
Aquabac with "V" weir 28 degrees 4	AQBAC04
Aquabac with "V" weir 53 degrees 8	AQBAC08
Aquabac with "V" weir 90 degrees	AQBAC16
Aquabac with "V" weir 90 degrees long version	AQBAC25
Aquabac with rectangular weir 125 m³/h	AQBAC125
Ultrasonic probe holder for Aquabac	POTENFAQBAC

Rental available

AQUALYSE BY AQUALABO

CORAIL PROBES,
Water level measuring probes

The AQUALYSE "CORAIL Probes" ensure a sonorous and luminous detection of the groundwater level.
The AQUALYSE "CORAIL probes" have been developed for punctual measures on groundwater level needs (well, drilling, piezometer…). A luminous and sonorous signal indicate the water surface (surface bottom as an option) has been reached. Reading the depth on the ribbon is simple and unmistakably. The detection is ensured by a stainless steel probe whose sensitivity is adjustable on the reel. A white polyethylene and strengthened ribbon is UV, saltwater and crushing resistant. A bicolour and high sensibility (m, dm, cm) metering facilitates the level determination.
The reel is equipped with a stainless steel hook and with a ribbon's guide.

Application

- Drilling level measuring, wells and ground water

Technical specifications	
Versions	30 m, 50 m, 100 m and 150 m
Probes	• Materials: stainless steel 316 • Dimensions: diameter: 15 mm, length: 195 mm • Protection: IP68 • Storage temperature: +0°C / +30°C
Ribbon	• Type: white polyethylen double wire • Ultraviolet, saltwater and contaminated water resistant • Metering: m (red), dm and cm (black)
Reel/controller	• Length: 30, 50, 100 and 150m • Hooks for fixing • Stainless ribbon guide integrated • Probe holder integrated • Battery: 2 buttons battery/autonomy: 15 000 detections or 10 years • Signal: Sonorous (buzzer) and luminous (LED) • Detection's sensibility: adjustable by potentiometer • Test: TEST A: battery / TEST B: probe + ribbon • IP55 protection
Dimensions and weight	Dimensions : • 30 m and 50 m versions: 210 x 300 x 205 mm (LxHxD) • 100 m and 150 m versions: 262 x 360 x 230 mm (LxHxD) Weight: • 30 m and 50 m versions: < 2,3 kg • 100 m and 150 m versions: > 4.8 kg
Option	• Bottom detection probe

TEST A

TEST B

References	
Corail Probe 30m	CORAIL30
Corail Probe 50m	CORAIL50
Corail Probe 100m	CORAIL100
Corail Probe 150m	CORAIL150
	OPTFDELTAD

Rental available

Solutions
FOR WASTE WATER TREATMENT PLANTS

Whether in construction, operation or maintenance, **the Aqualabo range** covers all your needs for control and monitoring waste water plants.

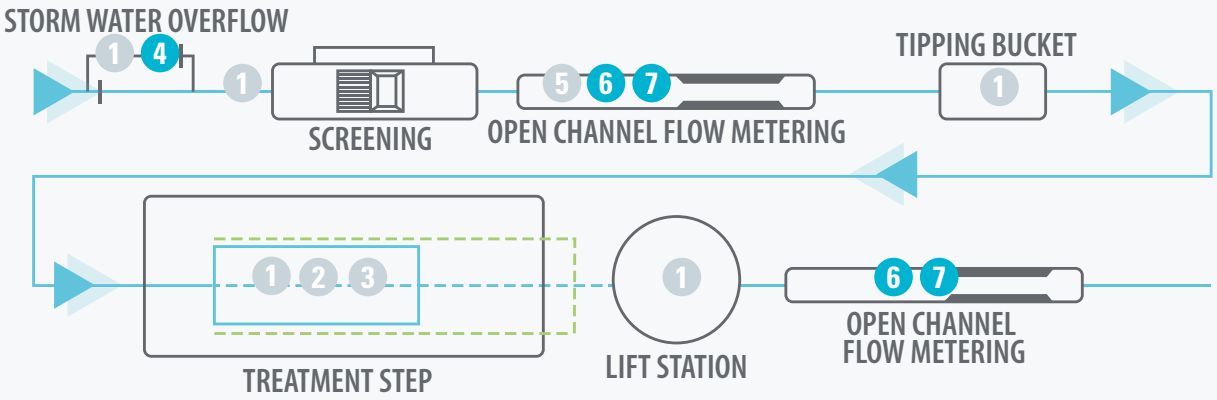
For the control of:

- Activated sludge
- Constructed wetlands
- Biological disks
- Phyto-epuration
- SBR / Etc.

One contact

- Physico-chemistry measurement : pH, ORP, temperature, dissolved oxygen, turbidity, TSS, Sludge Blanket, conductivity...
- COD BOD TOC TSS NO3 measurement
- Chemical reagents and laboratory equipments
- Sampling

EXAMPLE*



* The above scheme is only for example.

PHYSICO-CHEMICAL

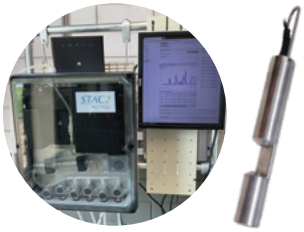
1 Smart Quality Sensors

2 Analysis cases and kits

3 Sludge blanket control

4 Aqua Connect'

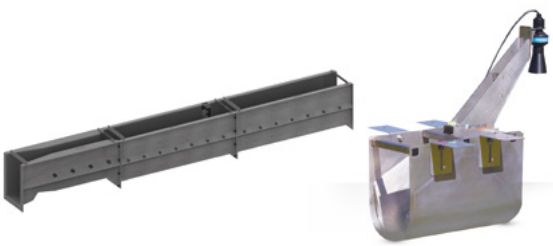
5 COD BOD TOC TSS NO_3 Measurement



SAMPLING AND VENTURI FLUMES

6 Automatical sampler

7 Venturi flumes



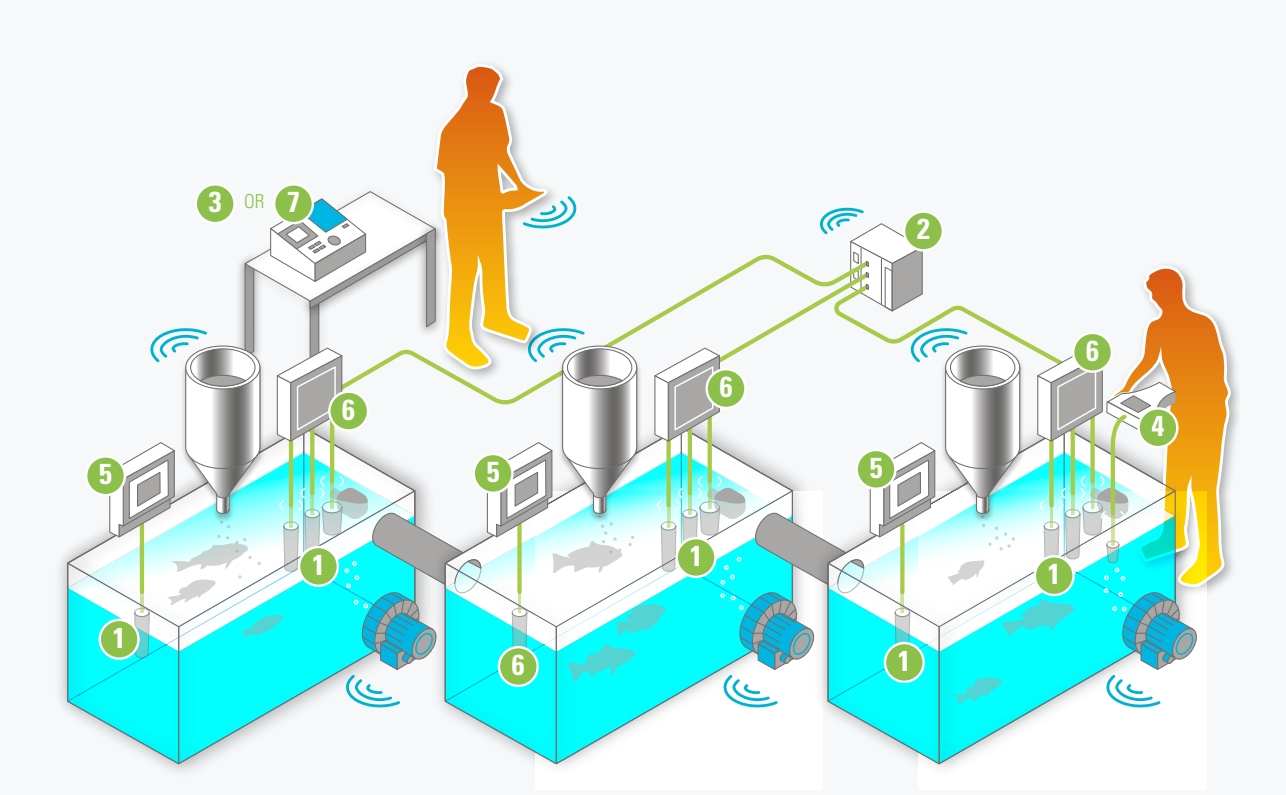
FISH FARMING,
Create an ideal environment for your pisces

Aqualabo offers a range of products for drinking water for in-line testing needs, in ponds or in the laboratory.
Instrumentation is a major factor in the Aquaculture field, since it acts directly on health, optimizing the growth of fish as well as the safety of the environmental in which they grow.
Control over the management of the dissolved oxygen content in pond water is essential, but monitoring pH levels, temperature and conductivity are also important. Finally, the monitoring of ammonia (giving an indication of the volumes of organic decomposition in the water) as well as nitrates and nitrites is vital.

Aqualabo offers a full range of simple, reliable and accurate equipment dedicated to this activity, but can also support the measurement, analysis and control of installations of all sizes ranging from a few ponds to several dozen, including sea farms.

The aqualabo aquaculture offer consists of field analysis devices and instruments via:

- Digital sensors for water quality measurement of pH parameters, dissolved oxygen, temperature, REDOX, conductivity, freshwater or seawater turbidity on stationary (ACTEON 5000/Module 4001) or portable (ODEON & NEON) equipment.
- Pond level and volume control devices.
- Quick analysis/reagent kits in a small case that are customizable to your needs



1 Digisens • Digital probes

2 Aqua Connect'

3 Field Laboratory

4 Odeon + Photopod
• Handheld transmitter + Photometer
NEON • Portable Oxymeter

5 ACTEON 5000
• Stationary Transmitters

6 Module 4001
• Communication box

7 Uviline
• Spectrophotometer

Control and monitoring for
INDUSTRIAL WASTE WATER DISCHARGE

Water is used in the industrial environment to perform many operations: heating, cooling, cleaning, dilution, cooking, chemical reactions, etc.

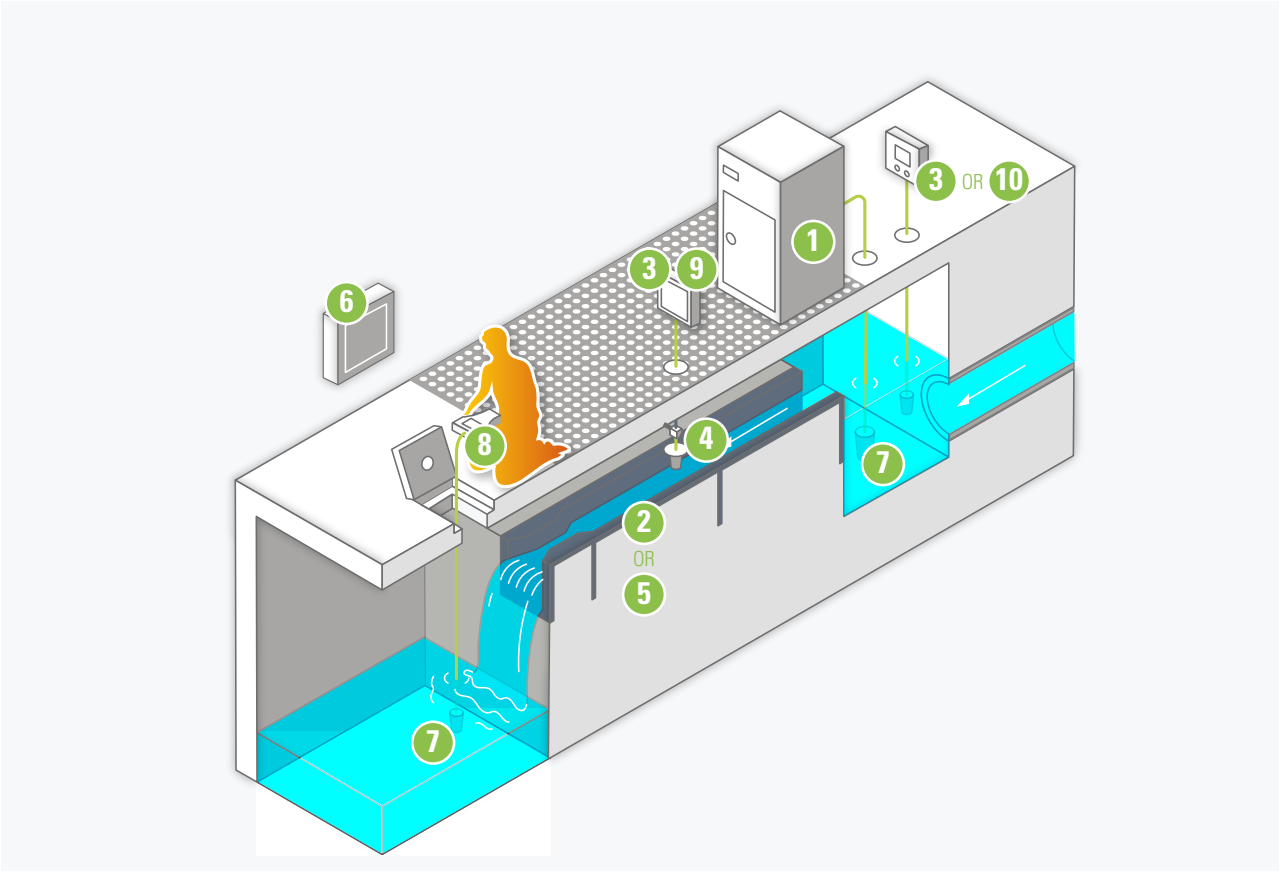
In most cases, this water comes from the drinking water system or is taken from natural groundwater or surface water. In addition, to make it compatible with different uses, various types of treatment need to be provided: filtration, softening, reverse osmosis, iron removal, manganese removal, carbon removal, demineralization, addition of treatment products, etc.

pH, conductivity, redox, hardness, alkalinity, chlorides, iron, manganese, silica ... are all parameters that have to be carefully monitored.

AQUALABO provides you with the means to control these parameters and ensure the effectiveness of treatment chains as well as the correct dosage of treatment products

Control of waste water: Environmental protection

- Sampling and monitoring
- Water quality analysis
- Measurement of physical values



Complete water quality measuring chain

1 Babynox • Automatic sampler

2 Aquaventuri • Venturi flume

3 ACTEON 5000 Stationary Transmitters

+

4 Ultrasonic level sensor

5 Aqua-UV • Venturi flume

6 STAC2 • UV Online Analyzer for COD BOD TOC TSS NO_3

7 Digisens • Digital probes

8 Odeon + Photopod • Handheld transmitter + Photometer

9 Aqua Connect' / LOG-AQUA

10 Module 4001 • Communication box

Measure and quality monitoring of wines
IN WINEMAKING PROCESS

Optimize quality, ensure regularity, produce wines in style and predefined characteristics include rigorous quality control and a mastery of the different stages of development.

Aqualabo offers instruments, including quality sensors, real tool for decision-making and steering, constituting one of the solutions to achieve these objectives.

ADVANTAGES

- Specific measurements
- Easy-to-use and field-adapted devices
- Quality instruments made in France
- On site or workshop services

A full range of interconnected equipment

Aqualabo range covers all needs for complete and real time monitoring of winemaking process.

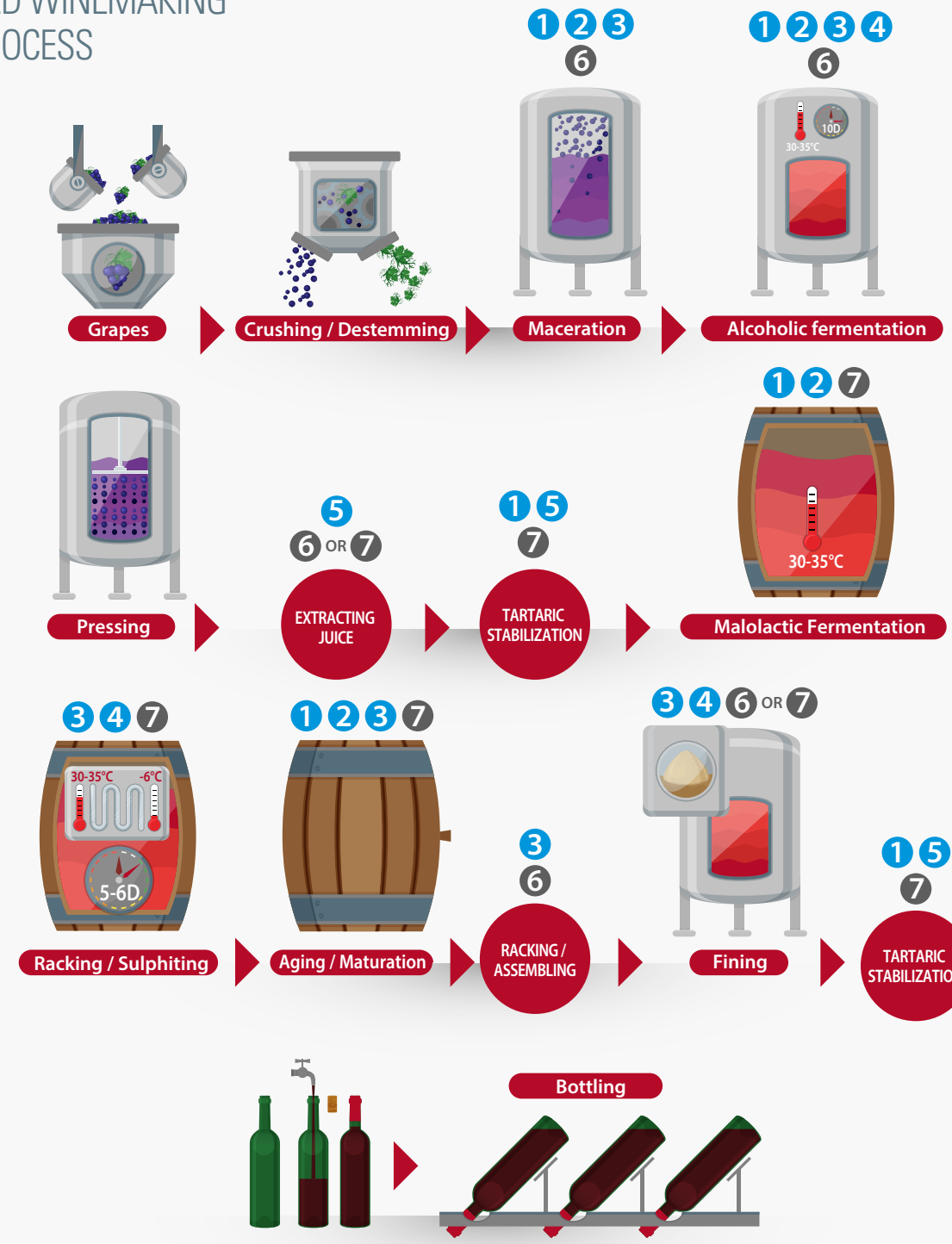
PHYSICO-CHEMICAL MEASUREMENTS

- **Dissolved oxygen measurement :** real strategic tool for decision-making for the implementation of processes of supply of oxygen or technical itineraries validations (filtration, transfers…). The monitoring of the oxygen concentration is carried out at each stage of your production, maturation, preparation and packaging.
- **Turbidity measurement :** Measured throughout the process, it allows to ensure the final quality of the wine. Qualitative control of the juices from the extraction which for white and rosé wines must not exceed 200 NTU.
- **Conductivity measurement :** Necessary during juice extraction phases (pressing) : Tracer of the qualitative evolution of the juices and allows to select the type of wine desired. The monitoring of conductivity allows to establish the level of treatment necessary to obtain the stability of the juice.
- **PH measurement :** Essential tool on the technical steps of acidification or deacidification of wine in order to target the optimal pH of the final wine.
- **Temperature measurement :** Carried out at different stages of vinification and constitutes a guarantee of quality for wines. According to the type of wine desired, the winemaker cools or heats the musts.

LEVEL MEASUREMENT

- **A level measurement** is necessary in the maceration tanks and alcoholic fermentation in red winemaking process and at the level of settling/fining and racking in white wine process.

RED WINEMAKING PROCESS



Digisens • Digital sensors
1 pH, 2 Temperature, 3 Oxygen, 4 Turbidity, 5 Conductivity

6 ACTEON 5000
• Stationary Transmitters

7 Odeon • Handheld device

AQUALABO
SERVICES

WORKSHOP SERVICES

HOTLINE

The AQUALABO technicians are available to help you to solve all your adjusting problems or phone-based troubleshooting

SPARE PARTS

AQUALABO has a large stock of spare parts to allow you to repair your equipment yourself

WORKSHOP TROUBLESHOOTING

Your measurement equipment can be serviced by our team of technicians in our workshops

CALIBRATION

We perform the calibration of your measuring equipment in our workshops

TRAINING

AQUALABO regularly organizes group training on its premises on different measurement methods

The "Aqualabo Pack Services" of Aqualabo

... Is a set of workshop services, either in phone support, practical training on a set of equipment, or repairs and checks on the test bench.

AQUALABO

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trust in Aqualabo for your rental projects.

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COD, BOD, TOC, NO_3 Analyzer (without reagents)

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GSM Communicating Logger

Refrigerated and isotherm portable samplers

Bubble and Transit time flowmeters

QUICK DELIVERY

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We ensure a continuous and rigorous control under ISO 9001 certification. After each use, the material is cleaned, disinfected and checked on test benches before restocking.
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Our team of experts is at your disposal to advise you and answer all your questions : problem on a current rental, a doubt about the operation of a product or software ...

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		Colorimetry / drop count titration	Burette Titrimetry	Photometry Spectrophotometry
		See page 61	See page 65	See page 71
		mg/l		mg/l
Acidity		-	0 - 30°F	-
Alkalinity	**p- and m-**	1 - 60°F	0 - 30°F	2 - 50 °F
		5 - 240°F	-	-
Aluminium	**Al^{3+}**	0 - 0,5	-	0,20 - 3,00
		-	-	0,05 - 1,00
		-	-	0,02 - 0,30
Ammonium	**NH^{4+}-N**	0 - 50	-	0,80 - 24,0
		-	-	0,20 - 4,80
		-	-	0,08 - 1,60
Benzotriazole		-	-	1,0 - 16,0
Bleach		100 - 1000	-	-
		30 - 150	-	-
		47 - 50°	-	-
Bromine	**Br_2**	0,045 - 0,79	-	1,00 - 13,5
		-	-	0,10 - 2,25
Calcium	**Ca^{2+}**	2 - 60°F	0 - 30°F	20 - 200
		-	-	2,0 - 20,0
Free Chlorine	**Cl_2**	0,02 - 0,35	-	0,50 - 6,00
		0,1 - 2	-	0,05 - 1,00
		10 - 100	-	-
		100 - 250	-	-
Total Chlorine	**Cl_2**	0,02 - 0,35	-	0,50 - 6,00
		0,1 - 2	-	0,05 - 1,00
		2 - 6	-	-
		0,1 - 12	-	-
Chlorides	**Cl^-**	2 - 250	0 - 30°F	10 - 500



		Colorimetry / drop count titration	Burette Titrimetry	Photometry Spectrophotometry
		See page 61	See page 65	See page 71
		mg/l		mg/l
		10 - 400	-	1,0 - 50,0
		200 - 1000	-	5 - 200
		-	-	0,50 - 20,0
Chromate	**CrO_4**	0,03 - 1,0	-	0,10 - 4,00
Color of water		15 - 200	-	-
Copper	**Cu^{2+}**	0,5 - 5,0	-	0,05 - 5,00
		0,1 - 1,0	-	0,20 - 5,00
Cyanides	**CN^-**	0 - 0,5	-	0,02 - 0,50
Cyanuric Acid		0 - 200	-	10 - 200
DEHA		0 - 1	-	0,02 - 1,00
Carbon Dioxide	**CO_2**	-	0 - 30°F	-
Chlorine Dioxide	**ClO_2**	0,19 - 3,8	-	2,4 - 28,5
		-	-	0,20 - 4,75
Iron	**$Fe^{2+/3+}$**	presence/absence	-	0,05 - 5,00
		0,06 - 1	-	0,20 - 20,0
		0,3 - 5	-	-
Fluorides	**F^-**	-	-	0,10 - 2,00
		-	-	0,20 - 2,00
Hardness	**TH**	0,05 - 2°F	0 - 30°F	5,0 - 50,0 °F
		2 - 60°F	-	-
		1 - 60°F	-	2,0 - 20,0 °F
Hydrazine	**N_2H_4**	0 - 1	-	0,10 - 2,00
		0 - 0,15	-	-



		Colorimetry / drop count titration	Burette Titrimetry	Photometry Spectrophotometry
		See page 61	See page 65	See page 71
		mg/l		mg/l
Magnesium	**Mg^{2+}**	2 - 60 °F	0 - 30°F	5,0 - 50,0
		-	-	0,50 - 5,00
Manganese	**Mn^{2+}**	0,05 - 2	-	0,20 - 5,00
		-	-	0,10 - 8,00
Molybdate	**MoO_4-Mo**	2 - 300	-	20 - 200
		-	-	3,0 - 60,0
		-	-	0,5 - 20,0
Nickel	**Ni^{2+}**	-	-	0,10 - 5,00
		-	-	0,50 - 10,0
Nitrates	**NO^{3-}-N**	0 - 200	-	0,6 - 23,0
		0 - 50	-	0,06 - 2,30
		-	-	1,0 - 22,5
		-	-	0,10 - 1,00
		-	-	4,5 - 45,0
Nitrites	**NO^{2-}-N**	0,018 - 0,36	-	0,01 - 0,60
		0,1 - 2	-	-
		-	-	0,4 - 41,0
		-	-	4 - 410
Organic Matter		-	0 - 30°F	-
Oxygene	**O_2**	1 - 10	-	-
Ozone	**O_3**	0,07 - 1,4	-	0,30 - 4,00
		0,014 - 0,24	-	0,03 - 0,65
Peroxyde	**H_2O_2**	-	-	2 - 200
		-	-	0,05 - 2,00
		-	-	-
pH		3,7 - 11,8	-	6,8 - 8,6
			-	-



		Colorimetry / drop count titration	Burette Titrimetry	Photometry Spectrophotometry
		See page 61	See page 65	See page 71
		mg/l		mg/l
Phosphates	**$PO4^{3-}$, P or P_2O_5**	0,7 -13,4 ($PO4^{3-}$)	-	1,0 -36,0 (P_2O_5)
		6 - 80 ($PO4^{3-}$)	-	0,50 - 13,0 (P)
		0,5 - 10 (P_2O_5)	-	0,06 - 1,60 (P)
		0,23 - 4,4 (P)	-	0,6 - 32,6 (P)
		-	-	0,06 -1,30 (P)
Polyacrylates		18 - 100 NTU	-	-
Potassium	**K^+**	-	-	2,0 - 15,0
Strong Acid Salt		-	0 - 30°F	-
Silica	**SiO_2**	0,2 - 2,0	-	10 - 300
		3 - 50	-	5 - 150
		20 - 200	-	0,2 - 10,0
		-	-	0,05 - 10,0
Sodium Hydroxide		-	0 - 30°F	-
Starch		presence/absence	-	-
Sulphates	**SO_4^{2-}**	40 - 160	-	10 - 400
		-	-	10 - 200
		-	-	5 - 300
Sulphites	**SO_3^{2-}**	5 - 250	0 - 30°F	-
		1 - 50	-	-
Sulfides	**S^{2-}**	-	-	0,05 - 0,60
Turbidity		-	-	10 - 4000 NTU
		-	-	10 - 100 NTU
Zinc	**Zn^{2+}**	0 - 2,0	-	-
		-	-	0,10 - 4,00
		-	-	0,05 - 4,00

ORCHIDIS BY AQUALABO

The rapid test kits measure many parameters using simple methods at a low cost.
Each kit comes in a box containing the accessories and and the ready-to-use reagents.
Three methods are used: drop count titration (or titrimetry), colorimetry, turbidimetry.

Titrimetry kit

DROP COUNT TITRATION

1- One (or several) reagent(s) added to the sample
2- The titrant added drop by drop until the color changes
3- The number of drops added determines the result

COLORIMETRY

1- Add one (or several) reagent(s) to the sample
2- A colour appears
3- Assign the value by comparison with the colorimetric scale.
The Orchidis comparator can be used to facilitate the reading of the result.

Colorimetry kit

Colorimetry small case

Kits and small cases

Each colorimetric analysis is available in kits or small cases. The comparator comes with the small cases not with kits. The small case may contain a larger amount of reagent to perform more tests.

TURBIDIMETRY

1- Add one (or several) reagent(s) to the sample
2- Some turbidity appears
3- The result is obtained by using a measuring tube.

Turbidrimetry kit

ORCHIDIS BY AQUALABO

More than 140 kits to analyze more than 40 parameters are available.
Each colorimetric test is available as a kit or a small case. The Orchidis comparator is provided with small cases but not with kits. Number of test is given for information purposes only. With titrimetric test, it depends on the concentration of water to analyze. For refills, check the reagent list at the end of the catalogue or contact us.

Parameter		Range	Method	Accuracy	Kit	Nbr test	Small case	Nbr test
Alkalinity	p-alkalinity	1-60°F	Titri.	1 drop = 1°F	1KT007.	100		
Alkalinity	p-alkalinity	5-240°F	Titri.	1 drop = 5°F	1KT006.	100		
Alkalinity (CMR free)	p-alkalinity	1-60°F	Titri.	1 drop = 1°F	1KT017	100		
Alkalinity (CMR free)	p-alkalinity	5-240°F	Titri.	1 drop = 5°F	1KT016	100		
Alkalinity	m-alkalinity	1-60 °F	Titri.	1 drop = 1°F	1KT100	15		
Alkalinity	m-alkalinity	1-60 °F	Titri.	1 drop = 1°F	1KT000	30		
Alkalinity	m-alkalinity	5-240°F	Titri.	1 drop = 5°F	1KT008.	30		
Alkalinity (for swimming pool)	m-alkalinity	1-60 °F	Titri.	1 drop = 1°F	14KT01	30		
Alkalinity	p-+m-alkalinity	1-60°F	Titri.	1 drop = 1°F	1KT009	100		
Alkalinity	p-+m-alkalinity	5-240°F	Titri.	1 drop = 5°F	1KT098	100		
Alkalinity (CMR free)	p-+m-alkalinity	1-60°F	Titri.	1 drop = 1°F	1KT019	100		
Alkalinity (CMR free)	p-+m-alkalinity	5-240°F	Titri.	1 drop = 5°F	1KT099	100		
Aluminium	Al^{3+}	0-0,5 mg/l	Color.	0,05-0,1-0,15-0,20-0,25-0,30-0,40-0,50	1KA009.	100	1TC003	100
Ammonia	NH_4^+	0,1-1 mg/l	Color.	0,1-0,2-0,3-0,4-0,5-0,6-0,7-0,8-1	1KA005	150	1TC004	300
Ammonia	NH_4^+	0,05-0,5 and 0,1-1 mg/l	Color.	0,05-0,1-0,15-0,2-0,25-0,3-0,35-0,4-0,5 and 0,1-0,2-0,3-0,4-0,5-0,6-0,7-0,8-1	1KA019	150	1TC068	300
Ammonia	NH_4^+	0-50 mg/l	Color.	0-0,5-1-2-5-10-20-30-50	1KA018	150	1TC065	300
Bleach	Cl_2 actif	100-1000 mg/l	Titri.	5 mg/l	1CC004	50		
Bleach	Cl_2 actif	30-150 mg/l	Titri.	0,5 mg/l	1CC015	50		
Bleach	Cl_2 actif	47-50° chlorométric	Titri.	1°	1CC016	50		
Bromine (for swimming pool)	Br_2	0,045-0,79	Color.	0,045-0,09-0,11-0,15-0,22-0,15-0,34-0,56-0,79			1TC005	120
Calcium	Ca^{2+}	2-60°F	Titri.	1 drop = 2°F	1KC009.	40		
Chlorine	Cl_2		Titri.	Presence / Absence	1KC015	100		
Free Chlorine (DPD)	Cl_2	0,02-0,35 mg/l	Color.	0,02-0,04-0,07-0,1-0,15-0,2-0,25-0,35	1KC008.	100	1TC023	100
Free Chlorine (DPD)	Cl_2	0,1-2 mg/l	Color.	0,1-0,2-0,4-0,6-0,8-1-1,3-1,6-2,0	1KC001.	100	1TC006	100
Free Chlorine (ortho)	Cl_2	0,1-2 mg/l	Color.	0,1-0,2-0,3-0,4-0,6-0,8-1-1,4-2,0	1KC012	250	1TC008	350

Color. : Colorimetry (comparison on a color scale)
Titri. : Drop count titration
Turbi. : Turbidity measurement

ORCHIDIS BY AQUALABO

Parameter		Range	Method	Accuracy	Kit	Nbr test	Small case	Nbr test
Free Chlorine	Cl_2	10-100 mg/l	Titri.	1 drop = 5 mg/l	1KC007.	50		
Free Chlorine	Cl_2	100-250 mg/l	Titri.	1 drop = 10 mg/l	1KC031	50		
Free Chlorine (ortho)	Cl_2	0,02-0,35 mg/l	Color.	0,02-0,04-0,05-0,07-0,1-0,15-0,2-0,25-0,35	1KC013	250	1TC009	350
Total Chlorine (DPD)	Cl_2	0,02-0,35 mg/l	Color.	0,02-0,04-0,07-0,1-0,15-0,2-0,25-0,35	1KC021	100	1TC069	100
Total Chlorine (DPD)	Cl_2	2-6 mg/l	Color.	2-2,5-3-4-5-6	1KC010	100	1TC070	100
Free and Total Chlorine (DPD)	Cl_2	0,02-0,35 mg/l	Color.	0,02-0,04-0,07-0,1-0,15-0,2-0,25-0,35	1KC030	50	1TC071	100
Free and Total Chlorine (DPD)	Cl_2	0,1-2 mg/l	Color.	0,1-0,2-0,4-0,6-0,8-1-1,3-1,6-2,0	1KC033	50	1TC072	100
Free and Total Chlorine (DPD)	Cl_2	0,1-12 mg/l	Color.	0,1-0,2-0,4-0,6-0,8-1-1,3-1,6-2,0 2-2,5-3-4-5-6 and 4-5-6-8-10-12	1KC029	50	1TC007	100
Chlorides	Cl^-		Titri.	Presence / Absence	1KZ001	150		
Chlorides	Cl^-	2-250 mg/l	Titri.	1 drop = 4 mg/l	1KC020	20		
Chlorides	Cl^-	10-400 mg/l	Titri.	1 drop = 10 mg/l	1KC005.	30		
Chlorides	Cl^-	200-1000 mg/l	Titri.	1 drop = 20 mg/l	1KC006.	30		
Chlorides (CMR free)	Cl^-	2-250 mg/l	Titri.	1 drop = 4 mg/l	1KC120	20		
Chlorides (CMR free)	Cl^-	10-400 mg/l	Titri.	1 drop = 10 mg/l	1KC105	30		
Chlorides (CMR free)	Cl^-	200-1000 mg/l	Titri.	1 drop = 20 mg/l	1KC106	30		
Chromium VI	Cr^{6+}	0,03-1,0 mg/l	Color.	0,03-0,06-0,1-0,2-0,3-0,5-0,75-1,0	1KC026C	180	1TC011	180
Cyanides	CN^-	0-0,5 mg/l	Color.	0-0,03-0,06-0,1-0,15-0,2-0,3-0,4-0,5			1TC013	150
Cyanuric Acid	Ac. Cya.	0-200 mg/l	Turbi.	20-30-40-50-60-80-100-200	1KS006	50		
Agressive CO2	CO_2		Titri.		1KC011	100		
Copper	Cu^{2+}	0,5-5,0 mg/l	Color.	0,5-1,0-2,0-2,5-3,0-3,5-4,0-5,0	1KC027	100	1TC073	100
Copper	Cu^{2+}	0,1-1,0 mg/l	Color.	0,1-0,2-0,25-0,35-0,45-0,55-0,65-0,7-1,0	1KC038	100	1TC046	100
Water color	Pt/Co	15-200 mg/l	Color.	15-30-60-100-150-200			1CC012	without reagents
DEHA	DEHA	0 - 1,0 mg/l	Color.	0-0,05-0,1-0,2-0,5-1,0	1KV004	250	1TC074	250
Chlorine dioxide	ClO_2	0,19-3,8 mg/l	Color.	0,19-0,38-0,76-1,14-1,52-1,9-2,47-3,04-3,8	1KC039	50	1TC067	100
Hardness	TH		Titri.	Presence / Absence	1KD004	80		

Color. : Colorimetry (comparison on a color scale)
Titri. : Drop count titration
Turbi. : Turbidity measurement

ORCHIDIS BY AQUALABO

Parameter		Range	Method	Accuracy	Kit	Nbr test	Small case	Nbr test
Hardness - 3 bottles (all sorts of waters : softeners, air conditionned, boilers...)	TH	2-60°F	Titri.	1 drop = 2°F	1KT001	40		
Hardness - 3 bottles (all sorts of waters : softeners, air conditionned, boilers...)	TH	1-60°F	Titri.	1 drop = 1°F	1KT011	20		
Hardness - 2 bottles (for low buffered waters)	TH	2-60°F	Titri.	1 drop = 2°F	1KT004	40		
Hardness - 1 reagent (for drinking water)	TH	1-60°F	Titri.	1 drop = 1°F	ORM-CD1003	20		
Hardness - 1 reagent Soap method (for colored waters)	TH	1-60°F	Titri.	1 drop = 1°F	14KT00	40		
Hardness High Sensibility - 3 reagents (for boilers HPV)	TH	0,05-2°F	Titri.	1 drop = 0,05°F	1KT005	20		
Hydrazine	N_2H_4	0-1 mg/l	Color.	0-0,05-0,1-0,2-0,3-0,4-0,6-0,8-1,0	1KH000	20	1TC020	30
Hydrazine	N_2H_4	0-0,15 mg/l	Color.	0-0,01-0,02-0,03-0,05-0,07-0,9-0,12-0,15	1KH001	150	1TC019	150
Hydrazine	N_2H_4	0-1 mg/l and 0-0,15 mg/l	Color.	0-0,01-0,02-0,03-0,05-0,07-0,9-0,12-0,15 and 0-0,05-0,1-0,2-0,3-0,4-0,6-0,8-1,0			1TC018	150 / 20
Iron	$Fe^{2+/3+}$		Titri.	Presence / Absence	1KF001	28		
Iron	$Fe^{2+/3+}$	0,06-1 mg/l	Color.	0,06-0,10-0,2-0,3-0,4-0,5-0,6-0,8-1,0	1KF005.	75	1TC017	150
Iron	$Fe^{2+/3+}$	0,3-5 mg/l	Color.	0,3-0,6-1-1,5-2-2,5-3-4-5	1KF006.	75	1TC016	150
Iron	$Fe^{2+/3+}$	0,06-1 mg/l and 0,3-5 mg/l	Color.	0,06-0,10-0,2-0,3-0,4-0,5-0,6-0,8-1,0 and 0,3-0,6-1-1,5-2-2,5-3-4-5	1KF008	75	1TC015	225
Magnesium	Mg^{2+}	2-60 °F	Titri.	1 drop = 2°F	1KM004	40		
Manganese	Mn^{2+}	0,05-2 mg/l	Color.	0-0,05-0,15-0,3-0,7-0,9-1,2-1,5-2,0	1KM003.	100	1TC021	300
Molybdates	MoO_4	2-30 mg/l 10-150 mg/l and 20-300 mg/l	Color.	2-3,5-5,5-7,3-11-14,5-18,2-22-30 10-20-40-60-80-100-120-150 and 20-40-80-120-160-200-240-300	1KM002.	50	1TC077	100
Nitrates	NO_3^-	0-50 mg/l	Color.	0-2-5-10-15-20-30-40-50	1KN018	100		
Nitrites	NO_2^-	0,018-0,36 mg/l	Color.	0,02-0,04-0,05-0,07-0,11-0,15-0,18-0,27-0,36	1KN007	150	1TC078	150
Nitrites	NO_2^-	0,1-2 mg/l	Color.	0,1-0,2-0,3-0,4-0,6-0,8-1,0-1,5-2,0	1KN028	150	1TC024	150
Dissolved oxygen	O_2	1 - 10 mg/l	Color.	0-1-2-3-4-6-8-10	1KV024	50		

Color. : Colorimetry (comparison on a color scale)
Titri. : Drop count titration
Turbi. : Turbidity measurement

ORCHIDIS BY AQUALABO

Parameter		Range	Method	Accuracy	Kit	Nbr test	Small case	Nbr test
Ozone	O_3	0,07-1,4 mg/l	Color.	0,07-0,14-0,27-0,41-0,54-0,7-0,88-1,1-1,4			1TC029	100
Ozone	O_3	0,014-0,24 mg/l	Color.	0,014-0,027-0,048-0,068-0,1-0,14-0,17-0,2-0,24			1TC030	100
pH	pH	3,7-5,3	Color.	3,7-3,9-4,1-4,3-4,5-4,7-4,9-5,1-5,3	1KP005	60	1TC032	180
pH	pH	5,2-6,8	Color.	5,2-5,4-5,8-6,0-6,2-6,4-6,6-6,8	1KP006	180	1TC033	360
pH	pH	6-7,6	Color.	6,0-6,2-6,4-6,6-6,8-7,0-7,2-7,4-7,6	1KP007	120	1TC034	240
pH	pH	7-8,6	Color.	7,0-7,2-7,4-7,6-7,8-8,0-8,2-8,4-8,6	1KP008	60	1TC035	180
pH	pH	8,6-10,2	Color.	8,6-8,8-9,0-9,2-9,4-9,6-9,8-10-10,2	1KP009	40	1TC036	120
pH	pH	10,2-11,8	Color.	10,2-10,4-10,6-10,8-11-11,2-11,4-11,6-11,8	1KP010	90	1TC037	280
Phosphates	PO_4^{3-}	0,7-13,4 and 6-80 mg/l	Color.	0,7-1,35-2-2,70-4-5,4-6,7-9,4-13,4 and 6-10-14-20-26-34-40-60-80	1KP004	80	1TC082	120
Phosphates	P_2O_5 (or P)	0 - 10 mg/l P2O5 (or 0,23 - 4,4 mg/l P)	Color.	0,5-1,0-1,5-2-3-4-5-7-10 (0,23-0,44-0,66-0,89-1,32-1,78-2,2-3,1-4,4)	1KP018	80	1TC079	120
Polyacrylates		18-100 NTU	Turbi.	18-20-22,5-25-27,5-30-35-40-45-60-70-80-100	1TP004	30		
Silicia - Low Range (CMR free)	SiO_2	0,2-2,0 mg/l	Color.	0,2-0,3-0,4-0,5-0,7-0,9-1,2-1,5-2,0	1KS008	80	1TC042	120
Silica - High Range (CMR free)	SiO_2	3-50 mg/l	Color.	3-6-10-15-20-25-30-40-50	1KS010	100	1TC044	150
Silica (CMR free)	SiO_2	0,2-2,0 mg/l and 3-50 mg/l	Color.	0,2-0,3-0,4-0,5-0,7-0,9-1,2-1,5-2,0 and 3-6-10-15-20-25-30-40-50			1TC043	150
Silica - waters of boilers (CMR free)	SiO_2	0,2-2,0 mg/l	Color.		1KS011	150		
Starch	Starch		Titri.	Detection of the presence of starch	1KA010	150		
Sulphates	SO_4^{2-}	0,2 - 200 mg/l	Turbi.		1KS000	50		
Sulphites	SO_3^{2-}	5-250 mg/l	Titri.	1 drop = 5 mg/l	1KS003.	25		
Sulphites	SO_3^{2-}	1-50mg/l	Titri.	1 drop = 1 mg/l	1KS009	30		
Sulphites (with tablets)	SO_3^{2-}		Turbi.		1KS007			
Tannates			Color.	excess / lack	1KT010	without reagents	1TC063	without reagents
Zinc	Zn^{2+}	0-2,0 mg/l	Color.	0-0,2-0,4-0,6-0,8-1,0-1,3-1,6-2,0	1KZ006	100	1TC045	100

Color. : Colorimetry (comparison on a color scale)
Titri. : Drop count titration
Turbi. : Turbidity measurement

ORCHIDIS BY AQUALABO

Different titration systems are available for the analyses carried out by direct titration.
There are four burette models corresponding to different needs and constraints. Burettes are graduated in ml or French degree °F according to the analyses.
Each analysis is provided with the necessary equipment, reagents and related methods.
See analyses list on page 61. Contact us for a quote.

TITRATOR BURETTE

This burette can be adapted to a macro pipette and is filled by suction. It fits easily in a small case.

TITRATOR BURETTE IN °F	1BS025
TITRATOR BURETTE IN ML	1BG014
MACROPIPET	1T0007

MOHR'S BURETTE

This burette can be mounted on a stand and is filled directly from the top.
The stand and burette can be disassembled and stored easily in a small case.

MOHR'S BURETTE IN °F	14BD05
MOHR'S BURETTE IN ML	1BD001
FIELD STAND	1SC004
LABORATORY STAND	1SC003

AUTOMATIC ZERO BURETTE

This burette is mounted on a 1000 ml reagent bottle and is filled by pressing the bottle. Zero is adjusted automatically. The set can be stored in a portable lab case.

AUTOMATIC ZERO BURETTE IN °F	1BZ001
AUTOMATIC ZERO BURETTE IN ML	1BZ000

DIGITAL BURETTE

This burette can be fitted on a bottle and gives fast, reliable and highly accurate analyses. Mounted on a 250 ml bottle, it can be integrated into a portable lab case.

DIGITAL BURETTE UN ML (25 ML)	1BD016
DIGITAL BURETTE UN ML (50 ML)	1BD050
GLASS BOTTLE 2500 ML	1FV005
GLASS BOTTLE 1000 ML	1FV004

Accessories

GRADUATED BOTTLE 125 ML	1FG000
ERLENMEYER FLASK 250 ML	1FE004
GRADUATED PLASTIC TUBE 30 ML	14TP00
GRADUATED PIPET 5 ML	1PG002
GRADUATED PIPET 10 ML	1PG003
SYRINGE 20 ML FOR FILTRATION	OR956195
FILTER HOLDER 25 MM	14PF09
FILTER PAPER 25 MM (X100)	14PF05
MAGNETIC STIRRER	1AM014
MAGNETIC BAR 20 X 6 MM (x3)	1BM003

BURETTE METHOD

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The ranges indicated below are given for concentrations of titrants noted in the table. The ranges can be easily adapted to individual needs by changing the volume of the sample and the concentration of the titrant. Reagents are available in many sizes from 60 ml to 1000 ml and titrants are available in different concentrations.
Contact us for a quote.

Parameter		Range in °F	Range mg/l	Reagents	
Chlorides	Cl^-	0-30	0-210	Silver Nitrate N/25 Potassium Chromate	Oxalic Acid 10% Phenolphtalein TA
Chlorides	Cl^-	0-30	0-210	Mercuric Nitrate N/25 Mixted Indicator for Chlorides	Nitric Acid N/5 Hydrogen Peroxide
Chlorides (CMR / Toxic free)	Cl^-	0-30	0-210	Chloride Titration Solution	Chloride Indicator
Aggressive CO_2	CO_2	0-30	0-130	Sulfuric Acid N/25 Marble Powder	Methyl Orange
Free CO_2	CO_2	0-30	0-130	Sulfuric Acid N/25 Phenolphtalein TA	Sodium Hydroxide Seignette
Organic Matter			0-15	Sulfuric Acid 1/2 Mohr's Salt 5g/l	Potassium Permanganate N/80
Organic Matter			0-30	Sulfuric Acid 1/2 Mohr's Salt 25 g/l	Potassium Permanganate N/80
Strong Acid Salt	SAF	0-30		Sodium Hydroxide N/25 Cationic Resin	Methyl Orange
Sulphites	SO_3^{2-}		0-15	Sulphite Reagent 1	Sulphite Reagent 2
p Alkalinity	TA	0-30		Sulfuric Acid N/25	Phenolphtalein TA
p Alkalinity	TA	0-30		Sulfuric Acid N/25	TA Indicator (CMR free)
m Alkalinity	TAC	0-30		Sulfuric Acid N/25	Methyl Orange
m Alkalinity	TAC	0-30		Sulfuric Acid N/25	TAC Reagent («virage franc»)
Strong Acid Tittle	TAF	0-30		Sulfuric Acid N/25	Methyl Orange
Hardness (calcium)	Ca^{2+}	0-30		EDTA Solution N/25 A/G Reagent	ECAL Indicator
Hardness (magnesium)	Mg^{2+}	0-30		EDTA Solution N/25 Buffer K10	NET Indicator Ammonium Oxalate solution
Total Hardness	Mg^{2+}/Ca^{2+}	0-30		EDTA Solution N/25 Buffer K10	NET Indicator
Total Hardness	Mg^{2+}/Ca^{2+}	0-30		Hydrotimetric Special Solution Phenolphtalein TA	Neutralising solution
Total Hardness	Mg^{2+}/Ca^{2+}	0-30		Hydrotimetric Special Solution TA Indicator (CMR)	Neutralising solution
Sodium Hydroxide	OH^-	0-240		Sulfuric Acid N/25 Phenolphtalein TA	Baryum Chloride Solution

ORCHIDIS BY AQUALABO

STANDARD OR CUSTOMIZED CASES

ABS Blue Case

ABS Grey Case

Aluminium case

Many standard kits and small cases are available for different applications:
boiler, waste waters, swimming pools...
Each case contains all the equipment, reagents and instructions to perform the analyses thus constituting a true portable laboratory.
If one of the standard cases does not meet all your needs, customized cases are available.

The portable cases are robust and perfectly adapted to field work. Several models are available.

We can include all types of analysis in our cases: from colorimetric methods (indicator paper or comparator) to titrimetric methods (drop count titration or burette).
We also equipe the cases with different pocket testers: pH, conductivity, TDS, T°...
Consult us for a quote.

ORCHIDIS BY AQUALABO

WATER TREATMENT

Demonstration cases

To highlight the problem of hard water, and demonstrate the effectiveness of water softening using a mini water softener.

Classical model case

Mini water softener for demonstration
Foam test
Precipitation test
Hardness test

Reference

Classical model case	1MD015

Luxurious model case

Mini water softener for demonstration
Foam test
Precipitation test
Hardness test
Nitrates test
Chlorine test
pH test

References

Luxurious model ABS case	1MD002
Luxurious model Aluminium case	1MD014

Multiparameter kit “test your water”

Hardness test
Nitrates test
Chlorine test
pH test

Reference

Multiparameter kit “test your water”	1TT013

Monoparameter test kits

Hardness 3 reagents	1 - 60°F	1KT001
Hardness 2 reagents	1 - 60°F	1KT004
Hardness 1 reagent	1 - 60°F	ORMCD1003
Nitrates	0 - 50 mg/l	1KN018
Chlorine/pH		1KS004

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LAUNDRIES - CATERING

Kits and multiparameter models

Laundry kit

Hardness test
Detergent test

Reference

LAUNDRY KIT	1KD002

Laundry case

Hardness test
Detergent test
Bleach test
Residual chlorine test
Detergent concentration
Iron test
pH test

Reference

LAUNDRY CASE	1MB007

Catering kit

Hardness test
Detergent test
Starch test
Temperature °C

Reference

CATERING KIT	14KH00

Dish washing control kit

Determination of alkaline detergent's concentration
Residual alkalinity test
Protein test
Starch test
Scale deposit test
Identification of calcareous residue

Reference

DISH WASHING CONTROL KIT	14KC05

Monoparameter kits

	Range	Reference
Starch	presence/absence	1KA010
p-Alkalinity	1 - 60°F	1KT007.
p-Alkalinity	5 - 240°F	1KT006.
m-Alkalinity	5 - 240°F	1KT008.
m-Alkalinity	1 - 60 °F	1KT000
Chlorine	presence/absence	1KC015
Chlorine	5 - 100 mg/l	1KC007
Hardness 3 reagents	2 - 60°F	1KT001
Hardness 2 reagents	2 - 60°F	1KT004
Hardness 1 reagent	1 - 60°F	ORMCD1003
Iron	presence/absence	1KF001
Iron	0,06 - 1 mg/l	1KF005.
Bleach	47 - 50°	1CC016
Detergent		1KT003
Other accessories		
pH	0 - 14	1PI110
Digital Thermometer		1TE001

ORCHIDIS BY AQUALABO

BOILER ROOM

CONTROL OF RD25 COMPLEX AND MOLYBDATES	1TC052
CONTROL OF POLYACRYLATES BASED PRODUCTS	1TP004

Boiler room case

Case for the important parameters to check in boiler room
Hardness, p- and m-alkalinity, chlorides, sulfites.

WITH DROP COUNT METHODS	1MD003HC
WITH BURETTE METHODS	1MD005HC
WITH DIGITAL TITRATOR METHODS	14ML06

WASTE WATER

Waste water treatment plant case

Decantation test
Control of limpidity
Recirculation test
Ammonia test
Nitrates test
Permanganate oxydability test
Sludge blanket detection
Phosphates test (optional)

WASTE WATER TREATMENT PLANT CASE	14ML01

MONOPARAMETER KITS

NITRATES	0 - 50 mg/l	1KN018
NITRATES	0 - 200 mg/l	1KN006
AMMONIA	0 - 50 mg/l	1KA018
PHOSPHATES	0 - 80 mg/l	1KP004

Photometry / spectrophotometry allows to analyze by generating color with reagents and measuring the intensity of staining with a device. The many ORCHIDIS methods allow to analyze more than 40 parameters. They are achievable with PHOTOPOD, UVILINE or any programmable spectrophotometer.

PHOTOMETRY

Photopod

This photometer is a concentrate of technology that works by connecting it to the ODEON multiparameter (single connection) or directly to a computer. Lightweight, compact and robust, it is designed for field use.
PHOTOPOD is available in 2 versions.
Photopod SP uses only tablet reagents and test tubes for COD, total nitrogen and total phosphorus.
Photopod LS uses liquid reagents and test tubes for COD, total nitrogen and total phosphorus.
See details page 71

Odeon

This multiparameter device is the only one able to perform photometry analyzes using the PHOTOPOD, and physico chemical measurements using probes (pH, ORP, conductivity, turbidity, oxygen…).
See details page 17

SPECTROPHOTOMETRY

SECOMAM
BY AQUALABO

Spectrophotometer

For even more accurate results, ORCHIDIS methods can be used with all SECOMAM's UVILINE spectrophotometers.
They can also be used with any other type of spectrophotometer.
Contact us for more information.

You already have a spectrophotometer?

You can also use ORCHIDIS methods and reagents for all your spectrophotometric analyses.
Contact us for more information.

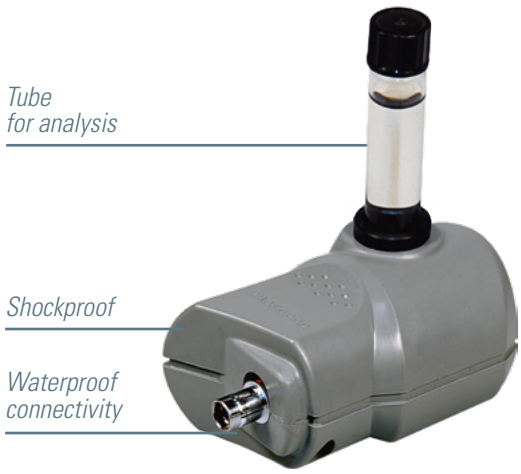
PONSEL BY AQUALABO

PHOTOPOD,

Compact photometer for field and laboratory

Concentrate of technology designed for the field work. It is light, compact, and robust.

PHOTOPOD can be used by connecting to ODEON multiparameter (single connection), or by connecting directly to a computer.
"Plug and Play", it is automatically recognized and powered by the multiparameter ODEON. It has 5 LEDs with built-in digital filters. The wavelength is selected automatically.



ADVANTAGES

- 5 LED with integrated numerical filters
- Automatic selection of wavelength
- Compact and robust
- 2 versions available : LS or SP
- Use with ODEON or PC computer

Technical specifications	
Device	LED photometer for water analysis
Wavelength	639 nm, 591 nm, 518 nm, 468 nm, 400 nm
Detector	Silicon photo-diode
Cuvette	16 mm diameter round glass cuvette
More than 40 parameters	Cl_2, CN^-, DCO, Fe, NH^{4+}, NO^{2-}, NO^{3-}, PO_4^{3-}, SiO_2… See list page 71
Wavelength adjustment	Automatic
Zero setting	Electronic storage
Measure	Absorbance or concentration
Signal	RS-485
Dimensions	62 x 96 x 58 mm
Material	ABS

LS and SP versions

- Photopod SP uses tablet reagents and pre-dosed test tubes
- Photopod LS uses liquid reagents and pre-dosed test tubes

See Parameter list page 75

NEW

Thanks to the SPECTRALAB software, the PHOTOPOD can be controlled directly from a PC. Registration, printing, data transfer ... everything is even easier by working directly on computer thanks to an intuitive interface.

ORCHIDIS BY AQUALABO

PHOTOPOD ACCESSORIES

Photopod Accessory Kit: - Plastic funnel 40mm H65mm (1EP021), - 2 glass tubes diameter 16mm (1CR099) - Tube holder plexi 2xd16 (1PT006) - Plastic crushing rod (1AP018) - Syringe 10 ml (1SU013) - Graduated plastic tube 30 ml (14TP00) - Demineralised water 125 ml (1ED010)	NA-ACC-C-00016
Graduated plastic tube 30 ml (14TP00)	14TP00
Plastic funnel 40mm H65mm	1EP021
2 glass tubes diameter 16mm	1CR099
Plastic crushing rod	1AP018
24 tubes tube holder diameter 16mm	1ST006
12 tubes tube holder diameter 16mm	1ST007
2 tubes holder diameter 16mm	1PT006

Accessories for cod, total nitrogen and total phosphorus tests

25 tubes Heating Reactor	1RD010
Wooden clamp	1PT007

Accessories for benzotriazole test

UV Lamp	14LU01
UV protection glasses	1LP010
Indicator paper pH 0 à 14 - 100 units	1PI030

Accessories for liquid handling

Syringe 1 ml	1SU010
Syringe 2 ml	1SU011
Syringe 5 ml	1SU012
Syringe 10 ml	1SU013
Syringe 20 ml	1SU014
Automatic Pipette 0,1 à 1,0 ml	1PA022
Automatic Pipette 1 à 5 ml	1PA023
Tips 0,1 - 1,0 ml x 100 units	1EU012
Tips 1 - 5 ml x 100 units	1EU013
Macropipette	1T0007
Graduated pipette - capacity 1 ml / division 0,01 ml	1PG000
Graduated pipette - capacity 2 ml / division 0,10 ml	1PG001
Graduated pipette - capacity 5 ml / division 0,05 ml	1PG002
Graduated pipette - capacity 10 ml / division 0,10 ml	1PG003

Demineralised water

Demineralised water - 125 ml	1ED010
Demineralised water - 250 ml	1ED008
Demineralised water - 500 ml	1ED016
Demineralised water - 1000 ml	1ED014
Demineralised water - 5000 ml	1ED000

References

Photopod version full SP (tablet reagents)	NA-ORC-C-00239
Photopod version full LS (liquid and tablet reagents)	NA-ORC-C-00240
Photopod version full SP + ODEON	NC-POR-C-00264
Photopod version full LS + ODEON	NC-POR-C-00263
Photopod version full SP + PC connexion box	NA-PPC-C-00001
Photopod version full LS + PC connexion box	NA-PPC-C-00002

TEST TUBES

Tube analysis methods are also available and compatible with PHOTOPOD and with all the spectrophotometers UVILINE: Total Nitrogen, Ammonia, Nitrites, Nitrates, DCO and Phosphates
Consult us for the parameters' list and their ranges.

RD010,
Heating reactor

For the sample preparations of analyzes:
Total nitrogen, COT, COD, Total phosphate

Analyzes of COD, TOC, total phosphate and total nitrogen require chemical mineralization (or digestion) with heating. The RD010 heating reactor offers programs at several temperatures (100/120/150° C) and reaction times (30, 60 and 120 minutes) as well as continuous operation. It has 24 stations for 16 mm diameter tubes. It operates on 220 V and 110 V (voltage switch on the back of the device)
Since safety is highly important, the heating reactor has a protective cover and is equipped with precise temperature control and overheating protection. An alarm sounds when the digestion is complete and the reactor switches off automatically.
For the correct handling of the tubes after heating, it is recommended to use a clamp adapted to catch them and to deposit them in a stand for cooling.

ADVANTAGES

- Optimum heat transfer between heating block and tubes
- Programmable temperature and heating time
- Perfectly secure
- 24 stations for 16 mm diameter tubes

References

Heating Reactor	1RD010
Wooden clamp	1PT007
Stand for 24 tubes	1ST006
Stand for 12 tubes	1ST007

ORCHIDIS BY AQUALABO

Reagents for photometry and spectrophotometry come from fifty years of experience of ORCHIDIS. They are available as starting kits for PHOTOPOD, and reagents refills for PHOTOPOD and spectrophotometers. Starting kits contain reagents, equipment and instructions. Refills contains only reagents. All methods are achievable by anyone, experienced or not.

Parameter		Range	Reagents	Time (mn)	Photopod LS	Photopod SP	Uviline	Starting kit for Photopod	Nbr test	Reagents refill for Photopod	Nbr test	Reagents for UViline	Nbr test
Alkalinity	TA	2,0 - 50,0 °F	tablet	5	●	●	●	1MT134	100	1MT045	250	1MS045	250
Alkalinity	TAC	2,0 - 50,0 °F	tablet	4	●	●	●	1MT135	100	1MT046	250	1MS046	250
Aluminium	Al^{3+}	0,05 - 1,00 mg/L	liquid	5			●	-	-	-	-	1MS303	300
Aluminium	Al^{3+}	0,05 - 3,00 mg/L	liquid	5	●			1MT136	150	1MT303	300	-	-
Aluminium	Al^{3+}	0,02 - 0,30 mg/L	tablet	8		●	●	1MT001	100	1MT304	250	1MS304	250
Aluminium	Al^{3+}	0,20 - 3,00 mg/L	tablet	9		●	●	1MT001	100	1MT304	250	1MS304	250
Ammonium	NH_4^+-N	0,80 - 24,0 mg/L N	liquid	6	●		●	1MT002	150	1MT305	300	1MS305	300
Ammonium	NH_4^+-N	0,20 - 4,80 mg/L N	liquid	6	●		●	1MT002	125	1MT305	250	1MS305	250
Ammonium	NH_4^+-N	0,08 - 1,60 mg/L N	tablet	11	●	●	●	1MT193	100	1MT306	250	1MS306	250
Ammonium#	NH_4^+-N	0,08 - 1,60 mg/L N	tablet	11	●	●	●	1MT003	100	1MT358	250	1MS358	200
Benzotriazole	BZT	1,00 - 16,0 mg/L	liquid	5,5	●			1MT078	100	1MT307	200	-	-
Bromine	Br_2	0,10 - 2,25 mg/L	tablet	4	●	●	●	1MT138	100	1MT004	250	1MS004	250
Bromine	Br_2	1,00 - 13,5 mg/L	tablet	7	●	●	●	1MT138	100	1MT004	250	1MS004	250
Calcium	$CaCO_3$-Ca	2,0 - 20,0 mg/L $CaCO_3$	tablet	3		●	●	1MT139	100	1MT309	250	1MS309	250
Calcium	$CaCO_3$-Ca	20 - 200 mg/L $CaCO_3$	tablet	4		●	●	1MT139	100	1MT309	250	1MS309	250
Chromium 6	Cr^{6+} - $CrO4^{2-}$	0,10 - 4,00 mg/L Cr^{6+}	liquid	1,5	●		●	1MT180	200	1MT009	200	1MS009	200
Chromium 6	Cr^{6+}	0,05 - 2,00 mg/L	tablet	6		●	●	1MT142	100	1MT312	250	1MS312	250
Chlorides	Cl^-	1,0 - 50,0 mg/L	liquid	4	●		●	1MT044	125	1MT310	250	1MS310	250
Chlorides	Cl^-	10 - 500 mg/L	liquid	5	●		●	1MT044	125	1MT310	250	1MS310	250
Chlorides	Cl^-	0,50 - 20,0 mg/L	tablet	4		●	●	1MT141	100	1MT311	250	1MS311	250
Chlorides	Cl^-	5 - 200 mg/L	tablet	5		●	●	1MT141	100	1MT311	250	1MS311	250
Chlorine Dioxide	ClO_2	0,20 - 4,75 mg/L	tablet	4	●	●	●	1MT177	100	1MT069	250	1MS069	250
Chlorine Dioxide	ClO_2	2,4 - 28,5 mg/L	tablet	7	●	●	●	1MT177	100	1MT069	250	1MS069	250
Copper	Cu^{2+}	0,20 - 5,00 mg/L	tablet	6		●	●	1MT011	100	1MT314	250	1MS314	250
Copper	Cu^{2+}	0,05 - 5,00 mg/L	liquid	3,5	●		●	1MT181	200	1MT313	200	1MS313	200
Cyanides	CN^-	0,02 - 0,50 mg/L	liquid	11	●		●	1MT012	150	1MT315	300	1MS315	300
Cyanuric Acid	Cyan.Ac.	10 - 200 mg/L	tablet	5		●	●	1MT048	100	1MT302	250	1MS302	250
Cyanuric Acid	Cyan.Ac.	10 - 200 mg/l	liquid	5	●		●	1MT130	100	1MT301	200	1MS301	200
DEHA	DEHA	0,05 - 1,00 mg/L	liquid	11,5			●	-	-	-	-	1MS112	200
DEHA	DEHA	0,02 - 1,00 mg/L	liquid	11,5	●			1MT182	200	1MT112	200	-	-

* Metropolitan France only
# sea water compatible

ORCHIDIS BY AQUALABO

sea water compatible

Parameter		Range (mg/L)	Reagents	Time (mn)	Photopod LS	Photopod SP	Uviline	Starting kit for Photopod	Nbr test	Reagents refill for Photopod	Nbr test	Reagents for UViline	Nbr test
Fluorides	F^-	0,20 - 2,00 mg/L	tablet	7		●	●	1MT147	100	1MT320	200	1MS320	200
Free Chlorine	Cl_2	0,05 - 1,00 mg/L	tablet	4	●	●	●	1MT140	100	1MT116	250	1MS116	250
Free Chlorine	Cl_2	0,50 - 6,00 mg/L	tablet	7	●	●	●	1MT140	100	1MT116	250	1MS116	250
Hydrogen Peroxide	H_2O_2	0,05 - 5,00 mg/L	tablet	1,5			●	-	-	-	-	1MS322	250
Hydrogen Peroxide	H_2O_2	2 - 200 mg/L	tablet	1,5	●	●	●	1MT148	100	1MT321	250	1MS321	250
Hydrogen Peroxide	H_2O_2	0,05 - 2,00 mg/L	tablet	2,5	●	●		1MT149	100	1MT322	250	-	-
Hardness	TH	2,0 - 20,0 °F	tablet	4	●	●	●	1MT143	100	1MT047	250	1MS047	250
Hardness	TH	5,0 - 50,0 °F	tablet	5	●	●	●	1MT143	100	1MT047	250	1MS047	250
Hydrazin	N_2H_4	0,10 - 2,00 mg/L	liquid	3			●	-	-	-	-	1MS323	100
Hydrazin	N_2H_4	0,10 - 1,00 mg/L	liquid	3	●			1MT019	25	1MT323	100	-	-
Iron	Fe	0,05 - 5,00 mg/L	liquid	3	●		●	1MT144	150	1MT317	300	1MS317	300
Iron	Fe	1,0 - 10,0 mg/L	liquid	12	●			1MT194	100	1MT359	200	-	-
Iron	Fe	0,2 - 20,0 mg/L	tablet	4		●	●	1MT145	100	1MT318	250	1MS318	250
Iron	Fe	0,05 - 5,00 mg/L	tablet	7		●	●	1MT146	100	1MT319	250	1MS319	250
Magnesium	Mg^{2+}	0,50 - 5,00 mg/L	tablet	4	●	●	●	1MT161	100	1MT325	250	1MS325	250
Magnesium	Mg^{2+}	5,0 - 50,0 mg/L	tablet	5	●	●	●	1MT161	100	1MT325	250	1MS325	250
Manganese	Mn^{2+}	0,10 - 8,00 mg/L	tablet	6		●	●	1MT162	100	1MT327	250	1MS327	250
Manganese	Mn^{2+}	0,20 - 5,00 mg/L	liquid	6	●		●	1MT050	125	1MT326	250	1MS326	250
Molybdate	MoO_4-Mo	3,0 - 60,0 mg/L Mo	tablet	2		●	●	1MT024	100	1MT330	250	1MS330	250
Molybdate	MoO_4-Mo	0,5 - 100,0 mg/L Mo	liquid	1,5			●	-	-	-	-	1MS329	200
Molybdate	MoO_4-Mo	0,5 - 20,0 mg/L Mo	liquid	1,5	●			1MT183	200	1MT329	200	-	-
Molybdate	MoO_4-Mo	20 - 200 mg/L Mo	liquid	1,5	●		●	1MT183	200	1MT329	200	1MS329	200
Nickel	Ni^{2+}	0,50 - 10,0 mg/L	tablet	3		●	●	1MT079	100	1MT332	200	1MS332	200
Nickel	Ni^{2+}	0,10 - 5,00 mg/L	liquid	4	●		●	1MT164	100	1MT331	200	1MS331	200
Nitrates#	NO^{3-}-N	0,06 - 2,30 mg/L N	liquid	10	●	●	●	1MT184	25	1MT350	50	1MS350	50
Nitrates#	NO^{3-}-N	0,6 - 23,0 mg/L N	liquid	10	●	●	●	1MT184	25	1MT350	50	1MS350	50
Nitrates	NO_3^--N	0,10 - 1,00 mg/L N	tablet	17		●	●	1MT101	100	1MT333	200	1MS333	200
Nitrates	NO_3-N	1,0 - 22,5 mg/L N	tablet	17		●		1MT101	100	1MT333	200	-	-
Nitrates	NO_3-N	4,5 - 45,0 mg/L N	tablet	17		●		1MT101	100	1MT333	200	-	-
Nitrites#	NO_2^--N	0,01 - 0,60 mg/L N	liquid	6	●	●	●	1MT027	150	1MT334	300	1MS334	300
Nitrites	NO_2^--N	0,01 - 0,60 mg/L N	tablet	11		●	●	1MT165	100	1MT335	250	1MS335	250

ORCHIDIS BY AQUALABO

sea water compatible

Parameter		Range (mg/L)	Reagents	Time (mn)	Photopod LS	Photopod SP	Uviline	Starting kit for Photopod	Nbr test	Reagents refill for Photopod	Nbr test	Reagents for UViline	Nbr test
Nitrites	NO_2^--N	0,4 - 41,0 mg/L N	tablet	3		●	●	1MT166	100	1MT336	250	1MS336	250
Nitrites	NO_2^--N	4 - 410 mg/L N	tablet	3		●	●	1MT166	100	1MT336	250	1MS336	250
Ozone	O_3	0,30 - 4,00 mg/L	tablet	7	●	●	●	1MT029	100	1MT337	250	1MS337	250
Ozone	O_3	0,03 - 0,65 mg/L	tablet	4	●	●	●	1MT029	100	1MT337	250	1MS337	250
pH	pH	6,8 - 8,6	liquid	0,5	●			1MT036	125	1MT338	250	-	-
Phosphates	P_2O_5	1,0 - 36,0 mg/L	liquid	11	●		●	1MT030	125	1MT352	250	1MS352	250
Phosphates	PO_4^{3-}-P	0,06 - 1,60 mg/L	liquid	11	●		●	1MT030	125	1MT352	250	-	-
Phosphates	PO_4^{3-}-P	0,06 - 1,60 mg/L P	liquid	11	●		●	1MT030	125	1MT352	250	1MS352	250
Phosphates	PO_4^{3-}-P & P_2O_5	0,50 - 13,0 mg/L P	liquid		●		●	1MT031	125	1MT351	250	1MS351	250
Phosphates	PO_4^{3-}-P	1,0 - 40,0 mg/L P	liquid	6		●	●	1MT185	100	1MT353	250	1MS353	250
Phosphates	PO_4^{3-}-P	0,6 - 32,6 mg/L P	tablet	2,5		●	●	1MT186	100	1MT354	200	1MS354	200
Phosphates	PO_4^{3-}-P	0,06 - 1,30 mg/L P	tablet	5		●	●	1MT186	100	1MT354	200	1MS354	200
Potassium	K^+	2,00 - 15,0 mg/L	tablet	4	●	●	●	1MT168	100	1MT340	250	1MS340	250
Silica	SiO_2	10 - 300 mg/l	liquid	8	●		●	1MT040	150	1MT341	300	1MS341	300
Silica	SiO_2	0,20 - 10,0 mg/L	liquid	8	●		●	1MT040	150	1MT341	300	1MS341	300
Silica	SiO_2	0,05 - 10,0 mg/L	tablet	12	●	●	●	1MT170	100	1MT343	200	1MS343	200
Silica	SiO_2	5 - 150 mg/L	tablet	12		●	●	1MT173	100	1MT342	200	1MS342	200
Sulfates	SO_4^{2-}	5 - 300 mg/L	liquid	11			●	-	-	-	-	1MS344	200
Sulfates	SO_4^{2-}	10 - 400 mg/L	liquid	11	●			1MT080	100	1MT344	200	-	-
Sulfates	SO_4^{2-}	10 - 200 mg/L	tablet	6		●	●	1MT171	100	1MT041	200	1MS041	250
Sulfure	S^{2-}	0,05 - 0,60 mg/L	tablet	6	●	●	●	1MT172	100	1MT345	-	1MS345	200
Total Chlorine	Cl_2	0,05 - 1,00 mg/L	tablet	4	●	●	●	1MT192	100	1MT007	250	1MS007	250
Total Chlorine	Cl_2	0,50 - 6,00 mg/L	tablet	7	●	●	●	1MT192	100	1MT007	250	1MS007	250
Turbidity	Turbi	10 - 100 NTU	-	0	●	●		-	-	-	-	-	-
Turbidity	Turbi	10 - 4000 NTU	-	0	●	●		-	-	-	-	-	-
Zinc	Zn^{2+}	0,05 - 4,00 mg/L	liquid	2	●		●	1MT190	200	1MT356	200	1MS356	200
Zinc	Zn^{2+}	0,10 - 4,00 mg/L	tablet	6		●	●	1MT043	100	1MT346	200	1MS346	250

ORCHIDIS BY AQUALABO

STANDARD SOLUTIONS FOR ORP, CONDUCTIVITY, TURBIDITY AND PH

Orchidis standard solutions and pH buffer solutions are prepared and controlled by our laboratory. The values given correspond to 25°C. For NIST certified solutions (or other certification), please contact us.

pH Buffer Solutions	60 ml	125 ml	250 ml	500 ml	1000 ml
Buffer solution pH 10	1TP000	1TP001	1TP056	1TP002	1TP003
Buffer solution pH 9	1TP011	1TP012	1TP070	1TP013	1TP014
Buffer solution pH 7	1TP006	1TP005	1TP055	1TP007	1TP008
Buffer solution pH 4	1TP015	1TP016	1TP054	1TP017	1TP018
Buffer solution pH 7,01	-	1TP060	-	-	-
Buffer solution pH 4,01	-	1TP061	-	-	-
For other values of pH buffer or other volumes, please contact us					

Conductivity Standard Solutions	125 ml	500 ml	1000 ml
Conductivity Standard Solution 12880 µS/cm	1SC013	1SC045	1SC033
Conductivity Standard Solution 1413 µS/cm	14SCS19	1SC027	1SC011
Conductivity Standard Solution 111800 µS/cm	11SC035	1SC046	1SC034
Conductivity Standard Solution 84 µS/cm	1SE044	1SE024	1SC020
For other values of conductiviry or other volumes, please contact us			

ORP Standard Solutions	125 ml	500 ml	1000 ml
ORP Standard Solutions 240 mV	1SR001	1SE028	1SE048
ORP Standard Solutions 470 mV	1SR004	1SR005	1SR006
For other ORP values or other volumes, please contact us			

Turbidity Standard Solutions	125 ml	500 ml	1000 ml
Formazine Solution 4000 NTU	1SF009	1SF007	1SF008
For other values of turbidity or other volumes, please contact us			

Storage and cleaning solutions for electrodes	125 ml	500 ml	1000 ml
Storage solution for electrode pH & EH	1SC009	1SC021	1SC035
Cleaning solution for electrode	1SN004	1SN005	1SN006

SECOMAM BY AQUALABO

PRIM SPECTROPHOTOMETERS

PRIM LIGHT and PRIM ADVANCED visible spectrophotometers combine excellent photometric quality with simple and intuitive handling.
Compact and lightweight, these spectrophotometers are ideal for standard applications in education or in laboratory.

- **PRIM Light:** simple internal software which includes basic measurements in spectrophotometry, absorbance, transmittance and single standard concentration.
- **PRIM Advanced:** Advanced applications in absorbance, transmittance, multi-standard concentrations, kinetics, multi-wavelengths and spectrum scanning.

Education

Reference laboratory

New
Monitor your PRIM, print and save directly with a computer using SPECTRALAB software.
See page 81

Technical specifications	
Spectral range	330-900 nm
Bandwidth	10 nm
Accuracy	± 1.5 %
Repeatability	± 1 nm
Photometric range	-0.3 Abs ; 0 -200 %T
Accuracy	± 2 %
Drift	< 0.03 A/h @ 500 nm
Stray light	0.5 %T @ 340 & 400 nm
Display	Alphanumeric LCD back-lit 2 lines height 8 mm 16 characters
Zero	Automatic
Light sources	Halogen
Detector	Silicon diode
Interface	Serial RS232C
Cell holder	1 Cell 10 mm
Power	115/230V - 50/60Hz
H x w x d	180 x 280 x 220 mm
Weight	2.5 kg

Software equipement

PRIM	Light	Advanced
Absorbance	YES	YES
% Transmission	YES	YES
Concentration With factor	YES	YES
Concentration With 1 standard	YES	YES
Concentration With 1 to 8 standards	NO	YES
Kinetics	NO	YES
Multi-wavelengths	NO	YES
Spectrum scanning	NO	YES
Peaks and valleys detection	NO	YES
Multi-language	YES	YES
Automatic stand-by	YES	YES

References

PRIM Light	70CI0377
PRIM Advanced	70CI0381
10mm cell holder (delivered with metal cell support réf 404917) Prim L&A	70CI0388
Box 7 flaws (visible) for spectrophotometers control	0G6349
Thermal printer KYOLINE black & white 40 column	0J6620
Set of 10 printer thermal paper rolls KYOLINE	0I6621
Kyoline Jyospeed printer for PRIM	X0072A
PC connexion cables for PRIM	70ST0561
SPECTRALAB software - free of charge & available for download	85LOG0001
Pre-aligned halogen lamp - SECOMAM certified	80ZZ0034
Box of 100 square plastic cells 10 mm, 3,5 ml	0G6317

Standard delivery
PRIM spectrophotometer, Box of100 plastic cuvettes, a 115/230V -50/60Hz transformer, user manual and performance certificate.

SECOMAM BY AQUALABO

UVILINE 9300 AND 9600 SPECTROPHOTOMETERS

Secomam engineers have developed spectrophotometric technologies to get faster and more accurate results. All these technologies have been included in the spectrophotometer Uviline 9300 (visible) and Uviline 9600 (UV visible) in order to give the best spectrophotometric experience.

New reference beam

- **Optimal accuracy with the reference beam:** more accurate, less drift, and no need to make a blank measurement everytime you start an analysis
- **Acquisition system:** 2 times faster than previous technologies
- **Better ergonomy** with a large color screen
- **Special mode :** the measurements can be done according to the customizable mathematical formulation, integration of additional variables and measurement conditions
- **Improvement of the lamp lifetime:** up to 4 years on Uviline 9300 and no need to change the lamp for Uviline 9600
- **Guaranteed straylight < 1%**

Perfect optical design

- Guaranteed Stray Light <1%
- Large Wavelength range: • 190 to 1100 nm (Uviline 9600) • 320 to 1100 nm (Uviline 9300)
- Bandwidth: 4nm
- Ambient light automatic compensation
- Fast scanning capability
- High light purity allowing a large reading range: + 3,500 Abs
- Automatic wavelength calibration

Accessories page 82 and technical specifications and references page 83

SPECTRALAB SOFTWARE

SpectraLab Software has been specially designed for the use with SECOMAM spectrophotometers, so you can control absolutely everything on your spectrophotometer and its accessories. The interface is intuitive and easy-to-use.

Compatibility

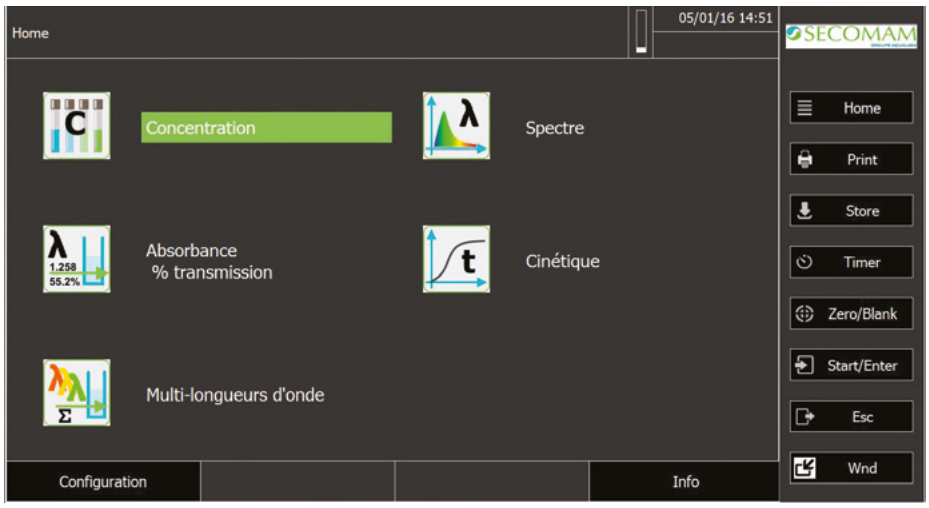
This powerful software is available for all Uviline devices and is compatible with all computers and tablets using Windows OS. Connection to the device is very easy and can be done with a USB wire or via Bluetooth®.
It is also possible to enjoy all the benefits of SPECTRALAB with PRIM and PHOTOPOD devices.

Connectivity and Data Storage

With Spectralab, it is no longer necessary to transfer your data from your device to a PC for use. Back up directly to your computer or mass storage media locally or on a networked server.
And for print, it is possible to use any printer connected in network.

5 Measuring Modes

- **Absorbance / Transmittance :** Select the wavelength and measure the absorbance / transmittance
- Concentration : Use the preprogrammed method or do your own method to make analysis and get the results directly in concentration
- **Kinetics : Easy to program :** choose the wavelength, the duration and the time between each measure for your kinetic analysis
- **Spectrum :** Select the range, the speed, the accuracy and launch the scan. Detection of hills and valleys, area calculation
- **Multi Wavelength :** Measures on several wavelengths (up to 10) and calculation with any mathematical formula and additional variables



Reference

SPECTRALAB software - free of charge & available for download	85LOG0001

SECOMAM BY AQUALABO

ACCESSORIES FOR UVILINE SPECTROPHOTOMETERS

The cell compartment of UviLine can receive a wide range of accessories. Easy to access, they expand the applications of spectrophotometers and improve their automation.
These accessories are easily installed thanks to the locking system "Quick-Lock" and ensure very fast and optimum positioning in instrument cell compartment.
Automatic accessories (multicell, Sipper, thermostatically controlled cell holder ...) are entirely controlled by the software.

THE ACCESSOIRES ARE GUARANTEED FOR 1 YEAR!

1. SECOMAM cells

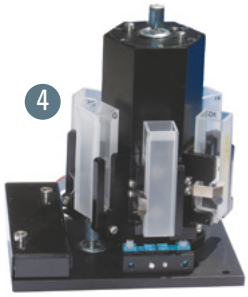
- The SECOMAM cells are a guarantee of quality and optical purity. More than 500 models of optical glass or quartz cells are proposed in our dedicated catalog.

2. Single cell holder up to 10 mm optical path

- It can receive 10 mm cells and, associated to the right diaphragm, it allows the use of microcells up to 50 µl.

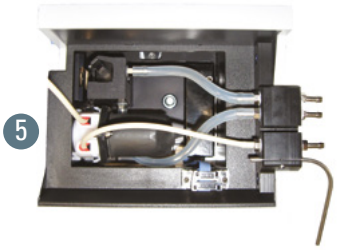
3. Universal Cell Holder 5-100 mm & 16 mm tube

- Suitable for cells 5/10/20/50/100 mm and 16 mm tubes, rigorously covers all uses of UviLine.



4. Automatic multi-cell turret 5 + 1

- It manages 5 samples and 1 blank.
- The turret is easily removable and re-insertable for easy change of the cells.
- Positioning is extremely accurate even for small volume cells.



5. Sipper

Compact, it is equipped with a peristaltic pump integrated to the cell holder:

- Programmable suction 500 µl to 2000 µl
- Can be used with cells from 30 µl to 450 µl
- It secures the handling and increases productivity

6. Peltier

The Peltier temperature control system is compact, fast and accurate.

- Programmation of the T° : from 10°C to 60°C with 1°C steps
- Accuracy: 0.5 ° C

SECOMAM BY AQUALABO

Applications

Education

Reference Laboratory

Chemicals

Life Sciences

Food Industry

Technical specifications		
Model Uviline	**9300 (Visible)**	**9600 (UV-Visible)**
Wavelength range	320-1100 nm	190-1100 nm
Light Source	Halogen	Xenon
Bandpass	4 nm	
Incremental WL step	Reading: 0.1 nm Setting: 1 nm	
Wavelenght accuracy	± 1 nm	
Wavelenght repeat-ability	± 0,5 nm	
Absorbance range	± 3.500 Abs	
Absorbance resolution	0,001	
Photometric accuracy	± 0.003 Abs (0.5 Abs) ± 0.005 Abs (1.0 Abs) ± 0.010 Abs (2.0 Abs)	
Stray light	< 0.1 %T at 340 nm < 0.1 %T at 408 nm	< 1 %T at 198nm < 0.1 %T at 220nm < 0.05 %T at 340 nm < 0.05 %T at 408 nm
Flatness baseline	± 0.002 Abs	
Scanning speed	> 600 nm/min	> 800 nm/min
Update	Via USB Stick	
Interface	1 USB-A, 1 USB-B, Ethernet RJ45	
Weight (net)	4 kg	
Dimensions (L x W x H)	404 x197 x 314 mm	
IP standard	IP 30 with drain in the cell compartment	
Power supply	110-220 V 50/60 Hz - specific country cable	
Température (°C) / Humidity Use	+10°C to +35°C ; storage: -25°C to +65°C / Average p.a.: <75%, 30 days/year: 95%; rest: 85%	
Warranty	3 years	

Preprogrammed methods

All Uviline spectrophotometers are provided with more than 100 preprogrammed methods to measure more than 40 parameters (see list and reagents kit page 71). A kit with all necessary accessories to prepare your samples is available (1KA050).

References

Spectrophotometers

UVILINE 9300 - Spectrophotometer Visible Reference Beam 4 nm	70VI0501A
UVILINE 9600 - Spectrophotometer Visible Reference Beam 4 nm	70VI0511A

Light source

Pre-aligned halogen lamp for UVILINE 9300. - SECOMAM certified	80ZZ0037

Please contact the technical service for other lamp's references.

Accessories

Standard 10 mm cell holder (included with all UVILINE)	70VI0604
5 - 100 mm universal cell holder for UVILINE	70VI0609
Automated 5+1 cell changer for UVILINE	70VI0600
Peltier thermostated 10 mm cell holder for UVILINE	70VI0603
Sipper for UVILINE	70VI0601
Accessories kit for orchidis methods on uviline	1KA050

Software

SPECTRALAB software - free of charge & available for download	85LOG0001
UVILINE PC connexion cable	X0009A

Cells

Box of 100 square plastic cells 10 mm 3,5 ml	0G6317
Standard 10mm glass cell with 3.5ml cap	0GG4Z0
Standard 10 mm quartz cell with 3.5ml cap	0GQ4Z0
Other cells models	Contact us

Calibration set

Calibration standards set for spectrophotometers	0G6349

Service

Maintenance contract, certification, training	Contact us

ORCHIDIS BY AQUALABO

ORCHIDIS manufactures all reagents and solutions listed below. For other packages or concentrations, please contact us. We are also at your disposal for the production of customized reagents made according to specific needs and we also distribute many brands of chemicals (PANREAC, MERCK, VWR, SIGMA…).

	Unit.	Ref.
A/G reagent	60 ml	1RA011
A/G reagent	500 ml	1RA001
A/G reagent	1000 ml	1RA002
A/G reagent	25 l	1RA012
A/G reagent (glass bottle)	125 ml	1RA000
A/G reagent (plastic bottle)	125 ml	1RA008
Acetic acid 1/2	60 ml	1AA001
Acetic acid 1/2	125 ml	1AA002
Acetic acid 1/2	500 ml	1AA003
Acetic acid 1/2	1000 ml	1AA004
Acid molybdate for stannous chloride	60 ml	1MA007
Acid molybdate for stannous chloride	1000 ml	1MA008
Ammonium chloride	60 ml	1AC037
Ammonium chloride	125 ml	1AC038
Ammonium chloride	500 ml	1AC039
Ammonium chloride	1000 ml	1AC040
Ammonium molybdate	80 g	1AM010
Ammonium molybdate	170 g	1AM011
Ammonium oxalate powder	125 g	1AO008
Ammonium oxalate solution	60 ml	1AO007
Ammonium oxalate solution	125 ml	1AO010
Ammonium oxalate solution	500 ml	1AO011
Ammonium oxalate solution	1000 ml	1AO012
Ammonium persulfate	50 g	1AP019
Aqueous solution of methyl red 0.1%	60 ml	1MR000
Aqueous solution of methyl red at 0.02%	125 ml	1MR001
Ascorbic acid	70 g	1AA005
Ascorbic acid	150 g	1AA006
B/G reagent	500 ml	1RB001
B/G reagent	1000 ml	1RB002
B/G reagent	25 l	1RB006
B/G reagent (glass bottle)	125 ml	1RB000
B/G reagent (plastic bottle)	125 ml	1RB005
Barium chloride solution	60 ml	1BC017
Barium chloride solution	125 ml	1BC008
Barium chloride solution	500 ml	1BC009
Barium chloride solution	1000 ml	1BC010
Barium chloride solution	5 l	1BC023
Barium chloride solution 20%	250 ml	1BC012
Bromocresol green	60 ml	1BV009
Bromocresol green	125 ml	1BV010
Bromocresol green	500 ml	1BV011
Bromocresol green	1000 ml	1BV012
Bromophenol blue 0,5%	60 ml	1BB017
Bromophenol blue 0,5%	125 ml	1BB002
Bromothymol blue	60 ml	1BB003
Bromothymol blue	125 ml	1BB004
Bromothymol blue	500 ml	1BB005
Bromothymol blue	1000 ml	1BB006
Buffer solution K 10	60 ml	1TK000
Buffer solution K 10	125 ml	1TK002
Buffer solution K 10	250 ml	1TK003
Buffer solution K 10	500 ml	1TK004
Buffer solution K 10	1000 ml	1TK005
Buffer solution K 10	5 l	1TK006
Buffer solution K 10	10 l	1TK009
Buffer solution K 10	25 l	1TK007
Cation resin	40 g	1RC015
CBP indicator	20 g	1IC002
CBP indicator	85 g	1IC000
CBP indicator	180 g	1IC001
Chloride indicator (without CMR)	60 ml	1IC011
Chloride indicator (without CMR)	125 ml	1IC012
Chloride indicator (without CMR)	250 ml	1IC013
Chloride indicator (without CMR)	500 ml	1IC014
Chloride indicator (without CMR)	1000 ml	1IC015
Chloride reagent n°1	125 ml	1RC030
Chloride reagent n°2	125 ml	1RC031
Chloride titration solution	1000 ml	1LC020
Chloride titration solution n°1	125 ml	1LC021
Chloride titration solution n°2	125 ml	1LC022
Chloride titration solution n°3	125 ml	1LC023
Chlorine reagent A	20 g	1RC023.
Chlorine reagent B	60 ml	1RC024.
Chlorophenol red	60 ml	1CR004
Chlorophenol red	125 ml	1CR005
Chlorophenol red	500 ml	1CR006
Chlorophenol red	1000 ml	1CR007
Chromium reagent n°1	60 ml	1RC032
Chromium reagent n°2	60 ml	1RC033
Concentrated ammonia	60 ml	1AC030
Concentrated ammonia	125 ml	1AC031
Concentrated ammonia	250 ml	1AC036
Concentrated ammonia	500 ml	1AC032
Concentrated ammonia	1000 ml	1AC033
Concentrated ammonia	5 l	1AC055
Copper reagent n°1	60 ml	1RC060
Copper reagent n°2	60 ml	1RC070
Cyanide reagent buffer PE	60 ml	1RC018
Cyanide reagent buffer PE	125 ml	1RC016
Cyanide reagent buffer PE	500 ml	1RC017
Cyanide reagent n°1	60 ml	1RC005
Cyanide reagent n°1	125 ml	1RC006
Cyanide reagent n°1	500 ml	1RC007
Cyanide reagent n°2	70 g	1RC008
Cyanide reagent n°2	150 g	1RC009
Cyanide reagent n°2	485 g	1RC010
Cyanide reagent n°3	60 ml	1RC011
Cyanide reagent n°3	125 ml	1RC012
Cyanide reagent n°3	500 ml	1RC013
DAB indicator	60 ml	1ID006
DAB indicator	125 ml	1ID001
DAB indicator	250 ml	1ID002
DAB indicator	500 ml	1ID003
DAB indicator	1000 ml	1ID004
DAB indicator	5 l	1ID005
DEHA reagent n°1	100 g	1RD012
DEHA reagent n°2	100 ml	1RD013
Deionised water	125 ml	1ED010
Deionised water	250 ml	1ED008
Deionised water	500 ml	1ED016
Deionised water	1000 ml	1ED014
Deionised water	5 l	1ED000
Dimethylglyoxime	60 ml	1D6001
Dimethylglyoxime	125 ml	1D1010
Dimethylglyoxime	250 ml	1D2000
Dimethylglyoxime	500 ml	1D5000
Dimethylglyoxime	1000 ml	1D1011
Diphenylcarbazide reagent for chromium analysis	60 g	1D6002
Diphenylcarbazide reagent for chromium analysis	130 g	1D1012
Diphenylcarbazone	125 ml	1D1019
ECAL indicator	15 g	1IE003
ECAL indicator	20 g	1IE002
ECAL indicator	70 g	1IE001
ECAL indicator	150 g	1IE000
EDTA solution N/10	60 ml	1LC000
EDTA solution N/10	125 ml	1LC001
EDTA solution N/10	500 ml	1LC002
EDTA solution N/10	1000 ml	1LC003
EDTA solution N/10	5 l	1LC004
EDTA solution N/25	60 ml	1LC005
EDTA solution N/25	125 ml	1LC007
EDTA solution N/25	250 ml	1LC014
EDTA solution N/25	500 ml	1LC008
EDTA solution N/25	1000 ml	1LC009
EDTA solution N/25	5 l	1LC010
EDTA solution N/25	10 l	1LC006
EDTA solution N/25	25 l	1LC011
EDTA solution N/50	125 ml	1LC015
EDTA solution N/50	1000 ml	1LC012
EDTA solution N/50	5 l	1LC013
Liquor alca (sulfuric acid) TA TAC	1000 ml	1LA052
Fluorescein	100 g	1FP018
Fluorescein	250 g	1FP019
Fluorescein	500 g	1FP005
Fluorescein	1000 g	1FP006
Fluorescein	5000 g	1FP007
Fluoresceine solution	125 ml	1FS000
Fluoresceine solution	500 ml	1FS001
Fluoresceine solution	1000 ml	1FS002
Hardness reagent (single bottle)	125 ml	14RT08
Hardness reagent (single bottle)	500 ml	14RT09
Hardness reagent (single bottle)	1000 ml	14RT10
Hardness reagent TH K	60 ml	1RT013
Hardness reagent TH K	500 ml	1RT002
Hardness reagent TH n°1	60 ml	1RT010
Hardness reagent TH n°1	500 ml	1RT000
Hardness reagent TH n°2	500 ml	1RT001
Hardness reagent TH n°2	60 ml	1RT007
Hardness reagent TH n°2	125 ml	1RT012
Hardness reagent TH K	125 ml	1RT021
Hardness reagent TH n°1	125 ml	1RT020
Hardness reagent TH n°1 (red)	60 ml	1RT011
Hardness reagent TH n°2 (high sensitivity)	60 ml	1RT014
Hardness reagent TH n°2 (high sensitivity)	500 ml	1RT015
Hydrochloric acid 1N	125 ml	1AC015
Hydrochloric acid 1N	500 ml	1AC016
Hydrochloric acid 1N	1000 ml	1AC017
Hydrochloric acid 1/2	60 ml	1AC000
Hydrochloric acid 1/2	500 ml	1AC001

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	Unit.	Ref.
Hydrochloric acid 1/2	1000 ml	1AC002
Hydrochloric acid 1/3	60 ml	1AC003
Hydrochloric acid 1/3	125 ml	1AC004
Hydrochloric acid 1/3	500 ml	1AC005
Hydrochloric acid 1/3	1000 ml	1AC006
Hydrochloric acid N/10	60 ml	1AC018
Hydrochloric acid N/10	125 ml	1AC019
Hydrochloric acid N/10	500 ml	1AC020
Hydrochloric acid N/10	1000 ml	1AC021
Hydrogen peroxide	60 ml	1HP001
Hydrogen peroxide	250 ml	1HP000
Hydrogen peroxide reagent n°1	60 ml	1RH001
Hydrogen peroxide reagent n°2	60 ml	1RH002
Hydrogen peroxide reagent n°3	60 ml	1RH003
Hydroplus solution	60 ml	1LH019
Hydroplus solution	500 ml	1LH022
Hydroplus solution	1000 ml	1LH023
Hydroplus solution	25 l	1LH024
Hydroplus solution (glass bottle)	125 ml	1LH020
Hydroplus solution (plastic bottle)	125 ml	1LH021
Hydrotimetric concentrated solution	60 ml	1LH006
Hydrotimetric concentrated solution (glass bottle)	125 ml	1LH007
Hydrotimetric concentrated solution (plastic bottle)	125 ml	1LH008
Hydrotimetric concentrated solution	500 ml	1LH009
Hydrotimetric solution BB	60 ml	1LH000
Hydrotimetric solution BB	125 ml	1LH001
Hydrotimetric solution BB	500 ml	1LH002
Hydrotimetric solution BB	1000 ml	1LH003
Hydrotimetric solution BB	5 l	1LH004
Hydrotimetric special solution	60 ml	1LH012
Hydrotimetric special solution	125 ml	1LH013
Hydrotimetric special solution	250 ml	1LH014
Hydrotimetric special solution	500 ml	1LH015
Hydrotimetric special solution	1000 ml	1LH016
Hydrotimetric special solution	5 l	1LH017
Hydrotimetric special solution	25 l	1LH018
Iodine solution for hygiene kit	500 ml	14KH00
Iodine solution 13 g/l	1000 ml	1SI003
Iron reagent 1	60 ml	1RF005
Iron reagent 2	20 g	1RF006
Iron reagent 2	50 g	1RF009
Iron reagent 3	60 ml	1RF007
Iron reagent A	60 ml	1RF003
Iron reagent B	60 ml	1RF004
Silica reagent (low range)	60 ml	1RS013
Silica reagent (low range)	125 ml	1RS014
Manganese reagent n°1	60 ml	1RM007
Manganese reagent n°2	60 ml	1RM008
Manganese reagent n°3	60 ml	1RM009
Marble powder	70 g	1MP000
Marble powder	150 g	1MP001
Marble powder	650 g	1MP002
Marble solution	1000 ml	14SM08
Mercuric nitrate N/10	125 ml	1MN006
Mercuric nitrate N/10	500 ml	1MN011
Mercuric nitrate N/10	1000 ml	1MN005
Mercuric nitrate N/100	500 ml	1MN007
Mercuric nitrate N/100	1000 ml	1MN016
Mercuric nitrate N/25	60 ml	1MN008
Mercuric nitrate N/25	125 ml	1MN001
Mercuric nitrate N/25	250 ml	1MN009
Mercuric nitrate N/25	500 ml	1MN002

	Unit.	Ref.
Mercuric nitrate N/25	1000 ml	1MN003
Mercuric nitrate N/25	5 l	1MN004
Mercuric nitrate N/50	500 ml	1MN012
Mercuric nitrate N/50	1000 ml	1MN010
Mercuric nitrate N/50	5 l	1MN013
Methyl Orange	60 ml	1H0000
Methyl Orange	125 ml	1H0001
Methyl Orange	250 ml	1H0002
Methyl Orange	500 ml	1H0003
Methyl Orange	1000 ml	1H0004
Methyl Orange	5 l	1H0005
Methylene blue	60 ml	1MB000
Methylene blue	125 ml	1MB001
Methylene blue	500 ml	1MB002
Methylene blue	1000 ml	1MB003
Methylene blue	5 l	1MB008
Mixed indicator for chloride	60 ml	1IM004
Mixed indicator for chloride	1000 ml	1IM005
Mohr's salt 25 g/l	60 ml	1SD002
Mohr's salt 25 g/l	125 ml	1SD003
Mohr's salt 25 g/l	500 ml	1SD004
Mohr's salt 25 g/l	1000 ml	1SD005
Mohr's salt 5 g/l	125 ml	1SD000
Mohr's salt 5 g/l	1000 ml	1SD001
Molybdate equalizing reagent	60 ml	1RM010
Molybdovanadate reagent	60 ml	1RV000
Molybdovanadate reagent	125 ml	1RV001
Molybdovanadate reagent	250 ml	1RV002
Molybdovanadate reagent	500 ml	1RV003
Molybdovanadate reagent	1000 ml	1RV004
Molybdovanadate reagent	5 l	1RV005
Monosodic carbonate	60 ml	1CM001
Monosodic carbonate	125 ml	1CM002
Monosodic carbonate	500 ml	1CM003
Monosodic carbonate	1000 ml	1CM004
Naphtol alpha (to analyze the presence of sugar)	60 ml	1NA000
Nessler reagent	60 ml	1RD002
Nessler reagent	125 ml	1RD003
Nessler reagent	500 ml	1RD004
Nessler reagent	1000 ml	1RD005
Net indicator	60 ml	1IN005
Net indicator	125 ml	1IN000
Net indicator	250 ml	1IN001
Net indicator	500 ml	1IN002
Net indicator	1000 ml	1IN003
Net indicator	5 l	1IN008
Neutralising solution	60 ml	1N6000
Neutralising solution	125 ml	1N1000
Neutralising solution	500 ml	1N5000
Neutralising solution	1000 ml	1N1001
Nickel reagent 1	60 g	1RN011
Nickel reagent 2	60 ml	1RN012
Nitrate equalizing reagent	60 ml	1RN005
Nitrate equalizing reagent	125 ml	1RN004
Nitric acid N/10	1000 ml	1AN039
Nitric acid N/5	60 ml	1AN001
Nitric acid N/5	125 ml	1AN002
Nitric acid N/5	250 ml	1AN003
Nitric acid N/5	500 ml	1AN004
Nitric acid N/5	1000 ml	1AN005
Nitrite reagent n°1	60 ml	1RN013
Nitrite reagent n°2	60 ml	1RN014
Orthotolidine	60 ml	1O6000
Orthotolidine	125 ml	1O1000
Orthotolidine	250 ml	1O2000
Orthotolidine	500 ml	1O5000
Orthotolidine	1000 ml	1O1001

	Unit.	Ref.
Orthotolidine	5 l	1O5001
Orthotolidine	25 l	1O2001
Oxalic acid	35 g	1AO005
Oxalic acid	80 g	1AO014
Oxalic acid 10 %	60 ml	1AO000
Oxalic acid 10 %	125 ml	1AO001
Oxalic acid 10 %	250 ml	1AO002
Oxalic acid 10 %	500 ml	1AO003
Oxalic acid 10 %	1000 ml	1AO004
Oxidizing solution	5 l	14SO00
Permanganate capsules - 4u	-	1GP001.
Phenol red	60 ml	1PR008
Phenol red	125 ml	1PR009
Phenol red	250 ml	1PR010
Phenol red	500 ml	1PR011
Phenol red	1000 ml	1PR012
Phenol red	25 l	1PR013
Phenolphtalein pH	60 ml	1PP015
Phenolphtalein pH	125 ml	1PP016
Phenolphtalein pH	250 ml	1PP017
Phenolphtalein pH	500 ml	1PP018
Phenolphtalein pH	1000 ml	1PP019
Phenolphtalein TA (alkalinity)	60 ml	1PT000
Phenolphtalein TA (alkalinity)	125 ml	1PT001
Phenolphtalein TA (alkalinity)	250 ml	1PT002
Phenolphtalein TA (alkalinity)	500 ml	1PT003
Phenolphtalein TA (alkalinity)	1000 ml	1PT004
Phenolphtalein TA (alkalinity)	5 l	1PT015
Phosphate reagent 1	60 ml	1RP018
Phosphate reagent 1	125 ml	1RP025
Phosphate reagent 1	500 ml	1RP022.
Phosphate reagent 2	60 ml	1RP019
Phosphate reagent 2	125 ml	1RP026
Phosphate reagent 2	500 ml	1RP023.
Polyacrylate reagent A	60 ml	1RP000
Polyacrylate reagent A	125 ml	1RP001
Polyacrylate reagent A	1000 ml	1RP005
Polyacrylate reagent B	60 ml	1RP002
Polyacrylate reagent B	125 ml	1RP003
Polyacrylate reagent B	1000 ml	1RP006
Potassium chromate 10%	60 ml	1PC004
Potassium chromate 10%	125 ml	1PC005
Potassium chromate 10%	250 ml	1PC006
Potassium chromate 10%	500 ml	1PC007
Potassium chromate 10%	1000 ml	1PC008
Potassium hydroxide 8N	60 ml	1PH006
Potassium hydroxide 8N	250 ml	1PH005
Potassium iodate	60 ml	1PI000
Potassium iodate	125 ml	1PI001
Potassium iodate	500 ml	1PI002
Potassium iodate	1000 ml	1PI003
Potassium iodide	60 ml	1PI004
Potassium iodide	125 ml	1PI005
Potassium iodide	500 ml	1PI006
Potassium iodide	1000 ml	1PI007
Potassium iodide	80 g	1PI015
Potassium iodide	185 g	1PI016
Potassium iodide	250 g	1PI082
Potassium permanganate 0,82N	60 ml	1PP002
Potassium permanganate 0,82N	125 ml	1PP003
Potassium permanganate 0,82N	500 ml	1PP004
Potassium permanganate N/10	60 ml	1PP005
Potassium permanganate N/10	125 ml	1PP006

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	Unit.	Ref.
Potassium permanganate N/10	500 ml	1PP007
Potassium permanganate N/10	1000 ml	1PP008
Potassium permanganate N/80	60 ml	1PP009
Potassium permanganate N/80	125 ml	1PP010
Potassium permanganate N/80	500 ml	1PP011
Potassium permanganate N/80	1000 ml	1PP012
Purple naphtol	60 ml	1NV001
Purple naphtol	125 ml	1NV002
Purple naphtol	250 ml	1NV003
Resin cleaning solution	5 l	14DR06.
Resin cleaning solution	25 l	14DR07.
Rhodol 1%	60 ml	1R1000
Rhodol 1%	125 ml	1R1001
Rhodol 1%	250 ml	1R1002
Rhodol 1%	500 ml	1R1003
Rhodol 1%	1000 ml	1R1004
Saturated potassium chloride sol.	125 ml	1PC001
Saturated potassium chloride sol.	500 ml	1PC002
Saturated potassium chloride sol.	1000 ml	1PC003
Saturated potassium chloride solution / storage solution	60 ml	1PC031
Seignette's salt	60 ml	1SD010
Seignette's salt	125 ml	1SD011
Seignette's salt	250 ml	1SD012
Seignette's salt	500 ml	1SD013
Seignette's salt	1000 ml	1SD014
Silica gel	500 g	1GD005
Silica reagent (high range)	60 ml	1RS011
Silica reagent (high range)	125 ml	1RS010
Silver nitrate n°1	125 ml	1AN054
Silver nitrate n°2	125 ml	1AN055
Silver nitrate n°3	125 ml	1AN056
Silver nitrate 1N	250 ml	1AN057
Silver nitrate 1N	500 ml	1AN042
Silver nitrate 1N	1000 ml	1AN041
Silver nitrate N/10	125 ml	1AN025
Silver nitrate N/10	500 ml	1AN026
Silver nitrate N/10	1000 ml	1AN027
Silver nitrate N/10	5 l	1AN060
Silver nitrate N/25	60 ml	1AN028
Silver nitrate N/25	125 ml	1AN029
Silver nitrate N/25	250 ml	1AN043
Silver nitrate N/25	500 ml	1AN030
Silver nitrate N/25	1000 ml	1AN031
Silver nitrate N/25	5 l	1AN047
Silver nitrate N/50	125 ml	1AN032
Silver nitrate N/50	500 ml	1AN033
Silver nitrate N/50	1000 ml	1AN034
Silver nitrate N/50	5 l	1AN051
Sodium acid sulphate	60 g	1SS006
Sodium acid sulphate	130 g	1SS007
Sodium fluoride	60 ml	1SF000
Sodium fluoride	125 ml	1SF001
Sodium fluoride	500 ml	1SF002
Sodium hydrosulphite	70 g	1SH005
Sodium hydrosulphite	150 g	1SH006
Sodium hydrosulphite	1000 g	1SH004
Sodium hydroxide 0,1 N	1000 ml	1SH050
Sodium hydroxide 1 N	1000 ml	1SH053
Sodium hydroxide 400 g/l	60 ml	1SH016
Sodium hydroxide 400 g/l	125 ml	1SH017
Sodium hydroxide 400 g/l	250 ml	1SH018
Sodium hydroxide 400 g/l	500 ml	1SH019
Sodium hydroxide 400 g/l	1000 ml	1SH020
Sodium hydroxide 400 g/l	5 l	1SH048
Sodium hydroxide 5N	60 ml	14SH26
Sodium hydroxide 5N	125 ml	1SH054
Sodium hydroxide 5N	1000 ml	1SH007
Sodium hydroxide N	125 ml	1LA011
Sodium hydroxide N	500 ml	1LA012
Sodium hydroxide N	1000 ml	1LA013
Sodium hydroxide N/10	60 ml	1LA001
Sodium hydroxide N/10	125 ml	1LA002
Sodium hydroxide N/10	500 ml	1LA003
Sodium hydroxide N/10	1000 ml	1LA004
Sodium hydroxide N/10	5 l	1LA043
Sodium hydroxide N/25	60 ml	1LA005
Sodium hydroxide N/25	125 ml	1LA006
Sodium hydroxide N/25	500 ml	1LA007
Sodium hydroxide N/25	1000 ml	1LA008
Sodium hydroxide N/25	5 l	1LA009
Sodium hydroxide N/50	5 l	1LA010
Sodium hydroxide seignette	60 ml	1LA014
Sodium hydroxide seignette	125 ml	1LA015
Sodium hydroxide seignette	500 ml	1LA016
Sodium hydroxide seignette	1000 ml	1LA017
Sodium periodate	20 g	1SP004
Sodium periodate	70 g	1SP005
Sodium persulphate 0,2 mol/l	10 l	1SP013
Sodium persulphate 1 mol/l	10 l	1SP014
Sodium thiosulfate 0,1 N	1000 ml	1ST012
Sodium thiosulfate N/10	60 ml	1SH024
Sodium thiosulfate N/10	125 ml	1SH025
Sodium thiosulfate N/10	250 ml	1SH026
Sodium thiosulfate N/10	1000 ml	1SH027
Sodium thiosulfate N/2,8	125 ml	1SH022
Sodium thiosulfate N/2,8	250 ml	1SH045
Soluble starch	60 ml	1AS025
Soluble starch	125 ml	1AS026
Soluble starch	500 ml	1AS027
Soluble starch	1000 ml	1AS028
Stannous chloride	1000 ml	1CS014
Sulphate reagent 1	60 ml	1RS015
Sulphate reagent 2	60 ml	1RS016
Sulphite reagent 0 - 50 mg/l	60 ml	1RS020
Sulphite reagent 1	50 g	1RS006
Sulphite reagent 2	500 ml	1RS007
Sulphite reagent 2	1000 ml	1RS012
Sulphite reagent A	20 g	1RS001.
Sulphite reagent A	50 g	1RS004.
Sulphite reagent A	250 g	1RS008
Sulphite reagent B	60 ml	1RS003.
Sulphite reagent B	250 ml	1RS005
Sulphite reagent B	500 ml	1RS009
Sulfuric acid 1/2	60 ml	1AS011
Sulfuric acid 1/2	125 ml	1AS000
Sulfuric acid 1/2	250 ml	1AS039
Sulfuric acid 1/2	500 ml	1AS012
Sulfuric acid 1/2	1000 ml	1AS001
Sulfuric acid 1/3	60 ml	1AS042
Sulfuric acid 1/3	1000 ml	1AS041
Sulfuric acid 1/4	60 ml	1AS013
Sulfuric acid 1/4	125 ml	1AS014
Sulfuric acid 1/4	500 ml	1AS015
Sulfuric acid 1/4	1000 ml	1AS016
Sulfuric acid 50%	1000 ml	1AS040
Sulphuric acid N	125 ml	1LA007
Sulphuric acid N	500 ml	1LA008
Sulphuric acid N	1000 ml	1LA009
Sulfuric acid N	125 ml	1LA032
Sulfuric acid N	500 ml	1LA033
Sulfuric acid N	1000 ml	1LA034
Sulfuric acid N/10	60 ml	1LA018
Sulfuric acid N/10	125 ml	1LA019
Sulfuric acid N/10	500 ml	1LA020
Sulfuric acid N/10	1000 ml	1LA021
Sulfuric acid N/10	5 l	1LA022
Sulfuric acid N/25	60 ml	1LA023
Sulfuric acid N/25	125 ml	1LA024
Sulfuric acid N/25	250 ml	1LA040
Sulfuric acid N/25	500 ml	1LA025
Sulfuric acid N/25	1000 ml	1LA026
Sulfuric acid N/25	5 l	1LA027
Sulfuric acid N/25	10 l	1LA044
Sulfuric acid N/25	25 l	1LA028
Sulfuric acid N/5	125 ml	1LA038.
Sulfuric acid N/5	1000 ml	1LA037.
Sulfuric acid N/50	60 ml	1LA029
Sulfuric acid N/50	125 ml	1LA030
Sulfuric acid N/50	1000 ml	1LA031
Sulfuric acid N/50	5 l	1LA041
TA (alkalinity) indicator	500 ml	1IT029
TA (alkalinity) indicator	1000 ml	1IT030
TA (alkalinity) indicator	5 l	1IT031
TAC (alkalinity) reagent «virage franc»	60 ml	1RT003
TAC (alkalinity) reagent «virage franc»	125 ml	1RT004
TAC (alkalinity) reagent «virage franc»	500 ml	1RT005
TAC reagent (single bottle)	125 ml	1RT023
TAC reagent (single bottle)	500 ml	1RT022
TDD indicator	60 ml	1IT000
TDD indicator	125 ml	1IT001
TDD indicator	500 ml	1IT002
Thiodene	30 g	1T0001
Thiodene	80 g	1T0002
Thiodene	250 g	1T0003
Total chlorine reagent	20 g	1RC002
Total chlorine reagent	80 g	1RC003
Total chlorine reagent	185 g	1RC004
Triazole reagent	125 ml	1RT018
Z indicator	60 ml	1IZ000
Z indicator	125 ml	1IZ001
Z indicator	500 ml	1IZ002
Zinc plus reagent	60 ml	1RZ000
Zinc plus reagent	125 ml	1RZ001

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	Unit.	Ref.
pH buffer solution		
Buffer solution pH 2	1000 ml	1TP040
Buffer solution pH 2,2	1000 ml	1TP062
Buffer solution pH 4	60 ml	1TP015
Buffer solution pH 4	125 ml	1TP016
Buffer solution pH 4	250 ml	1TP054
Buffer solution pH 4	500 ml	1TP017
Buffer solution pH 4	1000 ml	1TP018
Buffer solution pH 4	10 l	1TP049
Buffer solution pH 4,01	125 ml	1TP061
Buffer solution pH 4,01	5 l	1TP059
Buffer solution pH 5	500 ml	1TP057
Buffer solution pH 6	125 ml	1TP064
Buffer solution pH 7	60 ml	1TP006
Buffer solution pH 7	125 ml	1TP005
Buffer solution pH 7	250 ml	1TP055
Buffer solution pH 7	500 ml	1TP007
Buffer solution pH 7	1000 ml	1TP008
Buffer solution pH 7	10 l	1TP050
Buffer solution pH 7,01	125 ml	1TP060
Buffer solution pH 7,01	5 l	1TP058
Buffer solution pH 9	60 ml	1TP011
Buffer solution pH 9	125 ml	1TP012
Buffer solution pH 9	250 ml	1TP070
Buffer solution pH 9	500 ml	1TP013
Buffer solution pH 9	1000 ml	1TP014
Buffer solution pH 9	5 l	1TP063
Buffer solution pH 10	60 ml	1TP000
Buffer solution pH 10	125 ml	1TP001
Buffer solution pH 10	250 ml	1TP056
Buffer solution pH 10	500 ml	1TP002
Buffer solution pH 10	1000 ml	1TP003
Buffer solution pH 10	10 l	1TP051
Buffer solution pH 11	1000 ml	1TP052
Buffer solution pH 12	125 ml	1TP048

	Unit.	Ref.
Conductivity standard solution		
10 µS/cm	125 ml	1SE025
100 µS/cm	125 ml	1SC019
1000 µS/cm	125 ml	1SE032
1000 µS/cm	500 ml	1SE013
111800 µS/cm	125 ml	11SC035
111800 µS/cm	500 ml	1SC046
111800 µS/cm	1000 ml	1SC034
111800 µS/cm	5 l	1SC022
12850 µS/cm	500 ml	1SC048
12880 µS/cm	60 ml	1SC012
12880 µS/cm	125 ml	1SC013
12880 µS/cm	500 ml	1SC045
12880 µS/cm	1000 ml	1SC033
12880 µS/cm	5 l	1SC023
1413 µS/cm	60 ml	1SC007
1413 µS/cm	125 ml	14SCS19
1413 µS/cm	500 ml	1SC027
1413 µS/cm	1000 ml	1SC032
1413 µS/cm	1000 ml	1SC011
1413 µS/cm	5 l	1SC028
15 µS/cm	500 ml	1SC008
1800 µS/cm	500 ml	1SE027
2 ms/cm	5 l	1SC024
20 ms/cm	5 l	1SC031
200 µS/cm	500 ml	1SC026
200 µS/cm	5 l	1SC051
200 ms/cm	5 l	1SC025
2000 µS/cm	60 ml	1SE016
2000 µS/cm	125 ml	1SE009
2000 µS/cm	500 ml	1SE004
20000 µS/cm	500 ml	1SC050
2765 µS/cm	500 ml	1SE018
2770 µS/cm	5 l	1SC030
30 µS/cm	125 ml	1SE008
30 µS/cm	500 ml	1SE003
3000 µS/cm	125 ml	1SE026
3000 µS/cm	500 ml	1SC036
3000 µS/cm	1000 ml	1SE057
40 µS/cm	1000 ml	1SE058
5 µS/cm at 25°C	500 ml	1SE047
53000 µS/cm	500 ml	1SC043
58640 µS/cm	5 l	1SC029
600 µS/cm	1000 ml	1SC041
84 µS/cm at 25°c	125 ml	1SE044
84 µS/cm	500 ml	1SE024
84 µS/cm	1000 ml	1SC020
84 µS/cm at 25°c	1000 ml	1SE042

	Unit.	Ref.
ORP standard solution		
240 mV ORP solution	125 ml	1SR001
240 mV ORP solution	250 ml	1SE031
240 mV ORP solution	500 ml	1SE028
240 mV ORP solution	1000 ml	1SE048
240 mV ORP solution	5 l	1SE053
470 mV ORP solution	125 ml	1SR004
470 mV ORP solution	500 ml	1SR005
470 mV ORP solution	1000 ml	1SR006
200-275 mV ORP solution	500 ml	1SE029

	Unit.	Ref.
Turbidity standard solution		
Formazine solution 4000 ntu (brown flask)	125 ml	1SF009
Formazine solution 4000 ntu (brown flask)	500 ml	1SF007
Formazine solution 4000 ntu (brown flask)	1000 ml	1SF008

	Unit.	Ref.
Standard solutions		
Aluminium std sol. 5 mg/l	125 ml	14SE41
Chloride std sol. 1000 mg/l Cl^-	125 ml	1SE035
Iron std sol. 1000 mg/l	500 ml	1SE034
Silica std sol. 20 mg/l	1000 ml	14SE68
Silica std sol. 1 g/l 1000 ml	1000 ml	14SE04
Silica std sol. 10 mg/l	1000 ml	14SE05
Silica std sol. 200 µg/l	1000 ml	14SE49
Silica std sol. 20 µg/l	1000 ml	14SE56
Silica std sol. 50 µg/l	1000 ml	14SE63
Silica std sol. 10 µg/l	1000 ml	14SE64
KCl std sol. 0,126 mol/l	125 ml	1SE054
Manganese std sol. 1000 ppm	1000 ml	1SE055
Multi elements standard solution "N-NO_3/N-NH_4/ P-PO_4." 500 mg/l - 250ml	250 ml	1SE056
Nitrates standard solution 50 mg/l	1000 ml	14SE12.
Phosphate standard solution 1 mg/l PO_4^{3-}	500 ml	1SE019
Phosphate standard solution 200 mg/l PO_4^{3-}	125 ml	1SE033

	Unit.	Ref.
Storage and cleaning solutions for electrodes		
Storage sol. pH & EH	125 ml	1SC009
Storage sol. pH & EH	500 ml	1SC021
Storage sol. pH & EH	1000 ml	1SC035
Cleaning sol. pH & EH	125 ml	1SN004
Cleaning sol. pH & EH	250 ml	1SN007
Cleaning sol. pH & EH	500 ml	1SN005
Cleaning sol. pH & EH	1000 ml	1SN006

Easily control hardness, alkalinity (p- & m-), chlorides, iron and slicates

IN YOUR COOLING TOWERS

thanks to Orchidis analysis methods !

SEVERAL METHODS ARE AVAILABLE:

ONE PARAMETER TEST KITS
Drop count titration or colorimetry

- Easy-to-use solutions at low cost

BURETTE METHOD (TITRIMETRY)

- Reagents are available in many sizes: from 60 ml to 1000 ml
- Titrants are available in different concentrations

PHOTOPOD
Compact photometer designed for the field work

- Analyze more than 40 parameters !
  (Calcium, Copper, Hardness, Alkalinity, Iron, Chlorine, pH, ...)

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Smart water solutions

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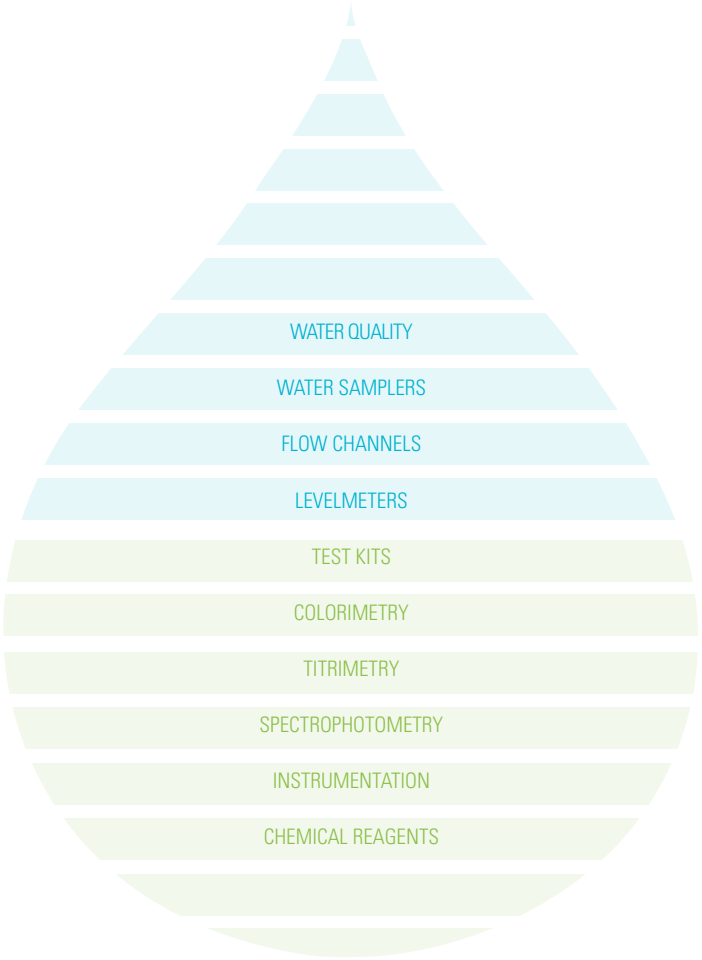

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