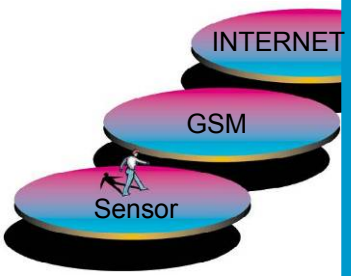
AUTOLOG® WaterMan

SOPHISTICATED® AUTOMATION

Surface- and groundwater monitoring using Internet browser !

Water quality, level and environmental measurements

Internet monitoring from anywhere !



Automation manufacturer

1976

AutoLog® WaterMan

AutoLog® WaterMan – Water measurements to Internet browser!

General: AutoLog WaterMan is ultra-modern system for surface and groundwater monitoring. System consists of sensors, GSM-RTUs and SCADA application running in Internet server. In the field the GSM-RTU powers the sensors and sends measurements to server using GSM and Internet networks. After sending measurements GSM-RTU goes to low power sleep mode until it wakes up again from internal clock interrupt. GSM-RTU and sensors can operate with battery.

User interface: Users can connect to hosted server using normal web browser from their office PCs or from any PCs which are connected to Internet. After login, user can see GSM-RTU locations on dynamic map. User can open alarm-, trend-, graphics- and report views to see the status of their field measurements. Web Interface doesn't need any software installation or maintenance.

Groundwater: level measurement, water quality measurements from landfill-, roadwork-, construction-, waste treatment- and sod production areas or any other areas, which are under potential contamination threat.

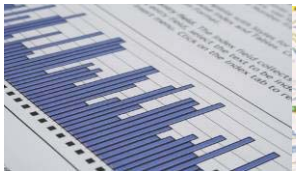
Surface water: level measurement (can be locked to local reference Datums e.g. N43, N60, N2000, ED50, WGS84), flood detection, dam leak detection. Water quality measurements, environmental, water treatment facilities, oil and algae concentrations in water. Also wastewater pumps control and flow meters.

Other environmental: AutoLog WaterMan system can be used in any environmental monitoring application e.g. Gas- and pollution measurements, weather stations etc.

THE AUTOLOG® FAMILY

AUTOLOG® PLC AUTOLOG® GSM AUTOLOG® OEM
AUTOLOG® RTU AUTOLOG® TETRA AUTOLOG® HMI

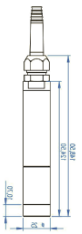
A U T O L O G ® D A T A S H E E T



A U T O L O G ® W a t e r M a n

Level	Ranges	Ranges	Accuracy	Measure principle
Level	0...200mH$_2$O	1, 2, 5, 10, 20, 50, 100, 200 mH$_2$O	± 0.5%max	Pressure, cable has vented tube for contacting atmosphere for precise measurement. Laser trimming compensating zero and span thermal error.
Other information	IP68 Protection, mV output, Diameter: 26 mm, length ~100 mm, Material: Stainless steel 316L, Connection: Water- and oil proof cable, 1.5mADC power supply (AutoLog PLC can wake up and supply power to sensor), Power consumption: 1.5mA, Compensation temp. 0...50°C, Operating temp. -10...80°C, O-ring: Viton, Response time (10%-90%): 1 ms, Insulation resistor 100MΩ, 100VDC			

pH / Redox / T	Range	Resolution	Accuracy	Measure principle
pH	0...14 pH	0.01 pH	± 0.05 pH	Combined electrode (pH/ref): special glass, Ag/AgCl ref. Gelled electrolyte (KCl)
Redox	-1000...+1000 mV	0.1 mV	± 2mV	Combined electrode, (Redox/Ref): platinum tip, Ag/AgCl AgAgCl, Gelled electrolyte (KCl)
Temperature	-10...50 °C	0.01 °C	± 0.5°C	NTC technology
Other information	IP68 Protection, Modbus RS-485 interface, Diameter: 27/21 mm, length 203 mm, Material: PVC, special pH glass, platinum, Max. pres: 5 bars, Cable: coaxial armored, polyurethane, bare wire or Fisher contactor, 5-12 VDC power supply (AutoLog PLC can wake up and supply power to sensor), Power consumption: 25 µA standby, Average (1 meas./sec.) 3.9 mA, Current pulse 500 mA , Response time <5 s			



Dis. Oxygen	Ranges	Resolution	Accuracy	Measure principle
Dissolved oxygen	0...20 mg/l 0...20 ppm 0...200 %	0.01	± 0.1 mg/l ± 0.1 ppm ± 1 %	Optical measure by luminescence
Other information	IP68 Protection, Modbus RS-485 interface, Diameter: 25 mm, length 146 mm, Material: Stainless steel 316L, Max. pressure: 5 bars, Connection: armoured connectors, polyurethane jacket, bare wires or waterproof Fisher connector, 5-12VDC power supply (AutoLog PLC can wake up and supply power to sensor), Power consumption: 25 µA standby, Average (1 meas./sec.) 4.4 mA, Current pulse 100 mA, Response time: 90% of the value in less than 60 seconds, Water move: No necessary move, Temperature compensation via NTC.			

Conductivity / T	Ranges	Resolution	Accuracy	Measure principle
Conductivity	0...200 µS/cm 0...2000 µS/cm 0...20 mS/cm 0...200 mS/cm	0.01 -1 according to range	± 1 % of full range	Conductivity sensor with 4 electrodes (2 graphic, 2 platinum)
Salinity TDS – KCl	5...60 g/kg 0...133000 ppm			Calculated from conductivity
Other information	IP68 Protection, Modbus RS-485 interface, Diameter: 27 mm, length 177 mm, Material: PVC, Stainless steel, Max. pressure: 5 bars, Connection: 9 armoured connectors, polyurethane jacket, bare wires or waterproof Fisher connector, 5-12VDC power supply (AutoLog PLC can wake up and supply power to sensor), Power consumption: 25 µA standby, Average (1 meas./sec.) 6.3 mA, Current pulse 500 mA, Response time: <5 s, Temperature compensation via NTC, operating temperature 0..50°C			

Turbidity	Ranges	Resolution	Accuracy	Measure principle
Turbidity	0...50 NTU 0...200 NTU 0...1000 NTU 0...4000 NTU	0.01 to 1 NTU	< 5% of the reading	Diffusion IR at 90°
Other information	IP68 Protection, Modbus RS-485 interface, Diameter: 27 mm, length 170 mm, Material: PVC, Quartz, PMMA, Nickel-plated brass, Max. pressure: 5 bars, Connection: 9 armoured connectors, polyurethane jacket, bare wires or waterproof Fisher connector, 5-12VDC power supply (AutoLog PLC can wake up and supply power to sensor), Power consumption: 40 µA standby, Average (1 meas. / sec.) 820 µA, Current pulse 500 mA, Maximum refreshing time <1s, Temperature compensation via NTC, operating temperature 0..50°C			

Oil / Algae	Range	Resolution	Oil / Algae	Range	Resolution
Crude oil	0...1500 ppb Quinine Sulfate	0.2 ppb	CDOM (Colored Dissolved Organ Material	0...2500 ppb Quinine Sulfate	0.4 ppb
Refined fuels	0...10000 ppb 1.5 Naphthalene Disulfonic Disodium Salt	2 ppb	BTEX (Benzene, Toluene, Ethylbenzene, Xylenes)	>2500 ppm	0.1 ppm
Other sensors	Chlorophyll a in vivo, Blue Green Algae -Phycoerythrin, Blue Green Algae -Phycocyanin, Fluorescein Dye, Rhodamine Dye, Optical Brighteners for Wastewater Treatment , Ask additional information of these sensors!				
Other information	Diameter: 22 mm, length 140 mm, Material: Stainless steel (optional Titanium), Temperature range: Ambient 0..50°C, water -2..50°C, Depth range: 600 meters, Signal output: 0..5VDC, Supply voltage range: 0-15VDC (AutoLog PLC can wake up and supply power to sensor), Power requirements: <300 mW typical				

Download

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