

formerly Aquionics, Berson, Hanovia and Orca GmbH



OPENLINE OLS

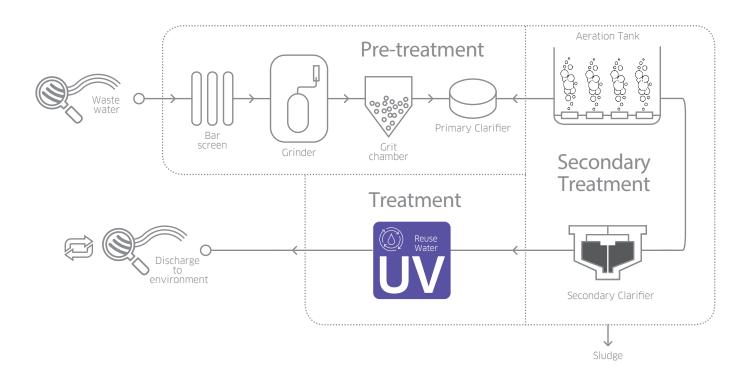
OPEN CHANNEL UV TREATMENT FOR WASTEWATER, REUSE AND INDUSTRIAL APPLICATIONS OpenLine UV systems provide an economical and efficient solution for the treatment of wastewater effluent. Using low pressure, high-output amalgam lamps, the OpenLine delivers a sustainable design while not compromising on quality or performance.

The OpenLine advanced control system monitors lamp output, water quality and flow, thus only consuming the necessary power to achieve the required performance. Based on over 100 years of UV system experience.

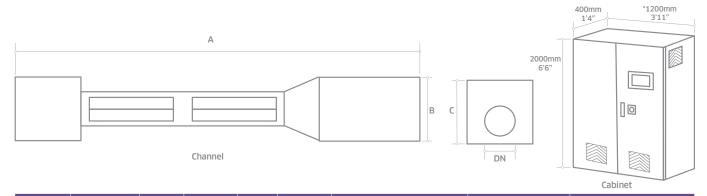
The OpenLine is ideal for small to medium sized treatment plants that are looking for a low maintenance and easy to operate system.



POTENTIAL LOCATIONS OF THE OPENLINE IN MUNICIPAL WATER TREATMENT PROCESS



KEY FEATURES	WHAT IT GIVES YOU	BENEFITS FOR YOU	
INTELLIGENCE			
Calibrated UV sensor measuring active wavelengths	Continuous verification of performance with real time UV intensity reading and in-built low UV dose alarm	Easy to monitor and log system performance	
Flow and UV transmittance (UVT) meter inputs	Dose reading based on actual process conditions when meters are connected	Accurate UV dose reading guaranteed under wide range of operating conditions	
OPTIMIZATION			
Advanced control system with lamp/ballast turn down capability	Reduced power consumption	Confidence in a sustainable solution with minimal carbon footprint	
UV dose for wastewater treatment	Treatment for wastewater from microbiological contamination	No chemical storage or delivery	
Robust Design	Parts have been selected for the rigors of wastewater effluent	Reduced downtime due to maintenance	
	Standard flange hole patterns	Easily connect standard flanges	
Automatic wiper (quartz cleaning)	Automatically cleans to maintain performance	Provides uninterrupted system performance	
INTEGRATION			
Compact Design	Configurable stainless steel channel	Easy to install	
	Can be retrofitted to existing process		
RS 485 interface	Cable connection to customer control system	Easy integration to SCADA or plant control systems	



MODEL NUMBER	HYDRA LIMIT	ULIC	NO. OF LAMPS	NO. OF MODULES	NO OF BANKS	NO. OF CABINETS	CHANNEL SIZE MM [ft,in]		I/O HOLE PATTERN	MAX CURRENT DRAW		
	m³/h	US [MGD]					А	В	С	DN	Fan ventillated /A Voltage dependent	Air conditioned /A Voltage dependent
OLS-02021	84	[0.53]	4	1	1	1	3962	660	1160	DN200 EN1092-1	6.1 - 6.7	7.2 - 8.1
							[13']	[2'2"]	[3'9.7"]	8" ANSI B16.5 150Lbs		
OLS-03021	129	[0.82]	6	1	1	1	4191	660	1160	DN250 EN1092-1	6.1 - 6.7	7.2 - 8.1
							[13'9"]	[2'2"]	[3'9.7"]	10" ANSI B16.5 150Lbs		
OLS-04021	174	[1.10]	8	1	1	1	4445	660	1160	DN300 EN1092-1	8.6 - 9.8	9.6 - 11.2
							[14'7"]	[2'2"]	[3'9.7"]	12" ANSI B16.5 150Lbs		
OLS-03041	266	[1.68]	12	2	1	1	4928	1060	1160	DN350 EN1092-1	8.6 - 9.8	9.6 - 11.2
							[16'2"]	[3' 5.7"]	[3'9.7"]	14" ANSI B16.5 150Lbs		
OLS-04041	358	[2.27]	16	2	1	1	5334	1060	1160	DN400 EN1092-1	11.0 - 12.9	12.1 - 14.2
							[17'6"]	[3' 5.7"]	[3'9.7"]	16" ANSI B16.5 150Lbs		
OLS-02022	84	[0.53]	8	2	2	1	6350	660	1160	DN200 EN1092-1	8.6 - 9.8	9.6 - 11.2
							[20'10"]	[2'2"]	[3'9.7"]	8" ANSI B16.5 150Lbs		
OLS-03022	129	[0.82]	12	2	2	1	6604	660	1160	DN250 EN1092-1	8.6 - 9.8	9.6 - 11.2
							[21'8"]	[2'2"]	[3'9.7"]	10" ANSI B16.5 150Lbs		
OLS-04022	174	[1.10]	16	2	2	1	6756	660	1160	DN300 EN1092-1	11.0 - 12.9	12.1 - 14.2
							[22'2"]	[2'2"]	[3'9.7"]	12" ANSI B16.5 150Lbs		
OLS-03042	266	[1.68]	24	4	2	1	7315	1060	1160	DN350 EN1092-1	13.4 - 15.9	14.5 - 17.3
							[24']	[3' 5.7"]	[3'9.7"]	14" ANSI B16.5 150Lbs		
OLS-04042	358	[2.27]	32	4	2	1	7747	1060	1160	DN400 EN1092-1	18.3 - 22.1	19.4 - 23.4
							[25'5"]	[3' 5.7"]	[3'9.7"]	16" ANSI B16.5 150Lbs		

All dimensions are approximate for clearance purposes only. We have a policy of continuous product development, exact drawings are available on request. All specifications are subject to change without notification. Your distributor or our account manager can advise on correct sizing and specification requirements. *For Cabinet size with air conditioning, W becomes 1556 [5'2"], all other sizes remains the same.

UV SYSTEM	
Lamp Type:	Amalgam
Input Power per lamp:	330 W
Lamp Configuration:	Horizontal, parallel to flow
Level Control Device Options:	Fixed Finger Weir
Sleeve Cleaning Method:	Automatic Pneumatic Drive Wiping System
UV Module Connection:	IP66 / NEMA 4X
Maximum Particle Size:	< 30 microns
Banks per channel:	2 Maximum
Modules per bank:	Configurable
Lamp Operating Lifetime:	14,000 hours
Material:	Stainless Steel 304 (EN 1.4401)
Safety:	Snap Action Limit Switch (System shut down when module is removed)

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OPTIONS
Painted Carbon Steel Cabinet (Indoor), IP55/NEMA 12, with Forced Fan cooling
Compressor for pneumatic wiping system
UV Connect
Uninterruptible Power Supply (UPS)
A-Frame module lifting device
UVT meter
Spare Module
Module Storage/Maintenance Rack

HMI / CONTROL	
Display:	Allen Bradley Panelview 800 10.4" operator Interface Touch Screen
Fault Finding:	Alarm Notifications, Lamp Status
PLC:	Allen Bradley Micro850

POWER AND CONTROL CABI	NET
Power Supply/V:	380V (3L+N wye) 50/60 Hz 400V (3L+N wye) 50/60 Hz 415V (3L+N wye) 50/60 Hz 480V (3L+N wye) 50/60 Hz
Lamp Driver Type:	Electronic, variable output
Cabinet Enclosure Rating:	IP54/NEMA 12 (Indoor)
Ballast Cooling Method:	Forced fan cooling
Ambient Operating Temperature:	41-104°F (5-40°C) (Indoor)
Maximum Ambient Relative Humidity:	85% non-condensing
Typical Outputs Provided:	Lamp status, common alarms, warnings, & UV intensity (dose)
Cabinet Material:	Painted Carbon Steel (Indoor)
CUSTOMER OUTPUTS	
4-20 mA outputs:	UV dose bank A, UV dose bank B
VFC outputs:	Bank A running, any warning, any trip Bank B running, any warning, any trip Channel low-UV
CUSTOMER INPUTS	
4-20 mA active or passive inputs:	Optimal Flow Signal, Optional UV Transmittance Signal
24VDC inputs:	Remote stop/start, remote reset
CUSTOMER COMMUNICATION	NS PORT

Ethernet IP, Modbus TCP/IP (SCADA connection)

CE marked, UL508A



OPENLINE

Also available in our Waste Water product range...



PROLINE WW IL

Range of medium pressure products with NWRI validation for waste water reuse

Range of compact medium pressure products for waste water treatment

Canada

+1 980 256 5700 americas@nuvonicuv.com

China

+86 21 6167 9599 apac@nuvonicuv.com

Germany

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Malaysia

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